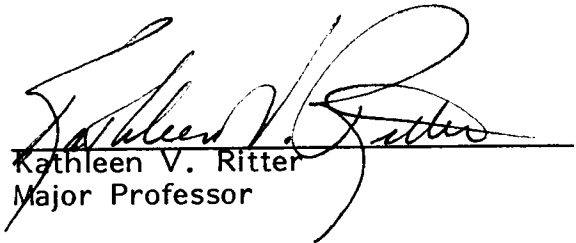
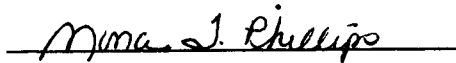


To the Graduate Council:

I am submitting herewith a thesis written by Marina Adler entitled "Career Motivations and Aspirations of Female Graduate Students: An Interracial Comparison." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Sociology.


Kathleen V. Ritter
Major Professor

We have read this thesis and
recommend its acceptance:


Mima J. Phillips


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Accepted for the Council:


The Graduate School

CAREER MOTIVATIONS AND ASPIRATIONS
OF FEMALE GRADUATE STUDENTS:
AN INTERRACIAL COMPARISON

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Marina Adler

June 1984

To Bruce with love

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ABSTRACT

This study examines the relationship between motivations, career choices and occupational aspirations of black and white female graduate students. An analysis of the scant literature comparing black and white career oriented women leads to the formulation of hypotheses which predict: (1) that the motives which lead black women to pursue professional careers differ from those of white women, and (b) that the professional aspirations of black and white women will differ in their "traditionality." Exploratory tests of these and related hypotheses suggest that most of the differences between black and white female graduate students relate to a mixture of structural and social psychological factors.

Overall this exploratory study suggests that today's black and white female graduate students are characterized by numerous commonalities in their social characteristics but show several differences in terms of their motivations, aspirations and view of the normative role of women in American society. The differences between women by race found in this study are tied to such factors as mother's work status, motives, intensity and scope of problems perceived to be associated with pursuing a career and traditional characteristics ascribed to women, to mothers and to self.

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CHAPTER I

STATEMENT OF THE PROBLEM
AND LITERATURE REVIEWStatement of the Problem

The common sense presumption that both sex and race affect career choices, educational attainment and occupational aspirations has not undergone serious theoretical and analytic examination by social science researchers. While there exists an extensive literature on the manner in which men choose careers, on the forces motivating men to pursue higher educational degrees and on what leads men to aspire to various occupations, few studies have asked whether or not females and minority males are subject to the same phenomena as majority males on these dimensions. The few studies conducted in this area focus on sex or race differentials to the total neglect of interracial comparisons among females. Thus, for example, the very real possibility that the career choices, educational and occupational aspirations of white and black women vary, has not been sufficiently explored. It is this lacuna in our knowledge that this research attempts to diminish. Specifically, this study is designed to determine whether there are any differences in what motivates the career choices and educational and occupational aspirations of black and white females who pursue professions requiring advanced educational degrees.

This narrow focus has been selected because until recently professional women in general and highly educated black women in particular have been considered an aberrant category, so negligible in size as to not warrant study. While the number of women with advanced degrees remains relatively small, very significant increases are taking place as the perceived role of women in American society is changing. A growing proportion of women reject the traditional role of supplemental provider within the family context. The role of nurturant mother and wife is becoming less likely to be seen as a desirable and all encompassing life goal for women. Instead, many women now aspire to long-term professional careers in the paid labor force. Assuming that past and present structural barriers to black and white women's access to higher education and subsequent professional occupations are diminishing and will continue to diminish along with the erosion of the female role stereotype, it is essential that we now embark upon understanding the motivational processes which lead black and white women to pursue professional careers in the face of adversity. Among other things the knowledge of what motivates black and white women to aspire to professional careers can serve as tool in the development of graduate training recruitment programs for women.

Literature Review

There exists an extensive and overlapping literature on career choice, educational attainment and occupational aspirations. Only a small proportion of this literature, however, is relevant to the questions posed by this study. While there is a large literature on

achievement motivation and status attainment in general, very little of that literature directly addresses the motivational and attainment related processes which influence women seeking advanced degrees and professional careers, let alone focuses on which factors delineate the process characteristic of black women versus white women.

In general it has been assumed that there are general sets of achievement motivation and status attainment principles that apply regardless of type of achievement or attainment. Furthermore, it has been assumed that what holds true for men is true for women and also true for women regardless of their race. Given these assumptions, I will first review the general literature on achievement motivation based on what might be particularly applicable to higher educational attainment and professional career pursuit. I will proceed to investigate what is known about this process for women and then turn to what is known for white women versus black women. Further, I will occasionally draw on material about blacks in general and black females in particular in order to speculate about what we might expect differentiates the ways in which black and white women become motivated to pursue advanced degrees and professional careers. The same procedure will be followed for the relevant literature on status attainment.

Achievement Motivation

The relationship between achievement and motivation is portrayed as a very complex one in the literature. Empirical tests support the general theoretical assertion that motivation affects the "cumulative

achievement" of the individual (McClelland, 1953; Atkinson and Feather, 1966; Atkinson and Raynor, 1974).¹ As this study concerns the processes that lead to advanced educational achievement, the relationship between motivation and cumulative achievement will be addressed. This form of achievement is a function of the socialization process. Presumably cumulative achievement is the result of significant others stimulating, maintaining and supporting the motivation for long-term educational and/or career involvement.

Cumulative achievement requires a future orientation, i.e., the "long-term striving to achieve a goal" (Raynor, 1974b:123) which presumably is sustained, at least in part, by significant others. In the context of this study I will assume that in some way significant others do affect motivation and that a future orientation is required to sustain a commitment to long-term educational involvement and professional career aspirations. The career itself will be regarded as a "motivational construct," i.e., the goal toward which motivations are directed, because the preference for a particular career entails knowledge of future benefits that should arise from the successful pursuit of the career (Raynor, 1974a). Therefore, socialization that leads to a future orientation which includes long-term career striving involves placing value on the rewards or incentives associated with a particular career (money, autonomy, prestige, social approval) and thereby emphasizes the advantages of the ability to delay gratification (Raynor, 1974a).

¹This study, not being interested in "immediate achievement," will not include any testing of academic performance in terms of aptitude.

In order to clarify how individuals become achievement motivated, we have to investigate some of the factors involved in this process. According to Atkinson and Raynor (1974), achievement motivation is determined by three interacting factors: the "hierarchy of motives" brought to a situation; the beliefs held about immediate or delayed consequences of action (rewards or obstacles); and the "persistent carry-over from recent events of either unsatisfied motivation to achieve or unresolved resistance to achievement-oriented activity" (1974:367). These motivational determinants are thought to build the foundation for the "cognitive structuring" of a career, influencing the individual's decisions over career choice, educational attainment and occupational aspirations.

The term "hierarchy of motives" refers to the process by which an individual selects one career from a number of alternatives and decides to devote a large amount of time to its pursuit (see Raynor, 1974a). This concept is salient in relation to the individual's career choice and the decision to place priority on long-term educational involvement rather than an alternative path. The "beliefs held" about the consequences of this decision are salient in so far as there exist perceived obstacles, such as discrimination and social rejection or rewards, such as self-fulfillment and high income. The influence of "recent events" is significant because recent success or failure in career related activities will affect the motivation to continue the pursuit of this career.

Women's Achievement Motivation

How are these very general theoretical ideas applicable to the achievement orientation of females? In our society, the traditional normative role for women (at least white women) does not include long-term career striving.² The traditional future orientation of females is channeled into striving for the goals of marriage and child rearing. If the traditional female gender role aimed at marriage and fertility is regarded as a career, the main incentives for its pursuit are security and social approval. In this context it is important to emphasize that "motivation cannot be considered apart from the individual's conception of himself [sic, herself], his [sic, her] social statuses and roles, and the existence of society and culture, which define situations and appropriate and desirable behavior" (Theodorson and Theodorson, 1969:266). Historically, American women's self-concept, social roles and statuses have centered around the acquisition of a providing husband and the raising of and caring for a family. Since the desirable female role is supposed to be that of wife and mother, women's self-concepts and statuses are derived from their performance in that role.³ Clearly career women somehow are motivated to otherwise (or

²The difference between white and black women's traditional normative roles are elaborated in the section "Women's Achievement Motivation by Race."

³This relates to the identity-occupation link referred to in the social psychological literature. There exists still the unresolved question whether or not females identify more with their own occupational status or tend to choose their husbands', which often is associated with higher prestige.

in addition) achieve status through a career. In other words, the possibility of achieving in ways other than being a wife and mother is opened. The question is, how has that occurred? For example, have significant others changed their orientation so that long-term career goals are stressed?

The literature on men would lead us to believe that the choice of a career involving long-term striving is determined by a stress on the benefits of deferred gratification. (Short-term career aspirations occur when immediate rewards are emphasized.) While we may assume that this holds for women as well as for men, we know that women are traditionally socialized not to pursue long-term careers and to select short-term careers which do not conflict with their femininity or gender role and thus do not threaten their ability to find a mate. Since women are choosing long-term careers, can we assume that those who do are influenced by significant others who stress the benefits of deferred gratification? If this is true, what prompts these significant others to encourage long-term career involvement?

The bulk of the literature on women and achievement motivation emphasizes the relationship between career striving and the female gender role (Horner, 1970, 1972; Tangri, 1972). The predominant themes in this literature are the "fear of success" motive and sex role conflicts. For example, Horner argues that women fear that social rejection will follow from the successful pursuit of a career. The women's fear is based on the perception of the traditional normative female role and the socialization to believe that this role is right and

desirable. This leads to women's lower achievement motivation compared to men's. The assertiveness required for the competition in a labor market dominated by men, who also perceive family orientation as more appropriate for women than career orientation, is associated with a loss of femininity and therefore stands in direct conflict with the traditional female gender role. As the female's self-concept is conditioned to be linked to the role of wife and mother, the motivation for career striving is suppressed. Thus, the female is not encouraged to commit herself to educational activities beyond college.

If all this is true, the question arises: Why do some women break the mold? The logical hypothetical answers include:

1. The women are socialized not to be afraid of success or to desire success in the labor market.
2. They are socialized to believe it is possible to be feminine and have a successful career.
3. They are socialized to regard family and career as compatible. These differences in socialization practices could be attributed to parents' awareness of changes in the family structure, in the occupational structure and in social attitudes toward women, all of which increase their daughters' options for future life styles.
4. They choose careers that do not violate the traditional normative female role, i.e., conflict with femininity is avoided.
5. They undergo resocialization through recent events or based on encouragement by significant others outside the family context, motivating them to pursue a career.

Women's Achievement Motivation by Race

The very limited literature available on comparisons of achievement motivation of women across race is characterized by inconsistent findings but generally suggests that black women are socialized differently than white women. Before reviewing the literature on socialization of black females, let us consider the extent to which the normative social role for females in the United States tacitly does not apply to black females. American society has historically had and presently has, different expectations for black women than for white women in terms of normative roles. White women have been socialized to believe material security is acquired through marriage.⁴ In reality economic security derived from marriage has been a more viable strategy for white women than for black women.⁵ Economic necessity has required the participation of black women in the labor market in larger numbers than white women.⁶ Nevertheless, the overrepresentation of black

⁴The traditional sex role socialization of white women is aimed at preparing them for the role as wife and mother with a male provider and supporter.

⁵Due to discrimination black men historically were unable to earn enough to support their family and therefore black women also had to work in order to arrive at a similar status to a white family with only one worker. Thus, black women could not expect to gain material security through marriage and expect the role of housewife to be the only one. Therefore, white women presumably had fewer problems fulfilling their role stereotype than black women.

⁶According to Allen (1979), approximately 50 percent of all black women over the age of 16 were employed since 1950. "Until recently, black female labor-force participation (LFP) rates far exceed those for white females. The black-white difference in female LFP rates in 1950 was 14 percentage points (46.9 percent vs. 32.6 percent), but this

women in low-paying, low prestige occupations suggests that the range of occupational opportunities open to black women has been limited. Furthermore, the types of occupations held by black women have disproportionately involved skills associated with the "housewife role." These types of occupations include domestic worker, garment industry worker, welfare worker, cook and teacher. Thus, one can deduce that black women are (and have been) subject to the same stereotypes as white women, but are (and have been) allowed more latitude with respect to selling "women's work" in the labor market. While it is socially acceptable for black women to work in the labor force, the types of work black women may perform are limited and underpaid. The limitations of particular interest here are those related to professional careers.

Returning to the specifics of socialization practices vis a vis black females, Lewis (1975) holds that black parents are less likely than white parents to socialize their daughters to get married, become housewives and be noncompetitive. Rather, parents of black women traditionally have socialized them in ways which prepare them for future competition in the labor market (Lewis, 1975; Lerner, 1972; Tobin, 1980). The significant others responsible for socializing black women seem to anticipate that black women need more than average

difference shrank by 1974 to 4 percentage points (49.1 percent vs. 45.2 percent). The implicit conclusion that black female LFP rates are now equaled by those of white women [is false because more black women] are full-time members of the labor force (88 percent vs. 67 percent in 1974)" (Allen, 1979:675).

education and training to achieve material security. Some argue that this reasoning is based on the belief that in order to be secure, black females have to become economically self-sufficient.⁷ A study of black female undergraduates showed that unlike white females, black females do not try to avoid success-oriented ambitions (Burlew, 1982). Instead they seem to redirect "their energies into professions [such as social science] that are more neutral with respect to sex role orientation and, perhaps, easier to integrate with more traditional concerns" (Burlew, 1982:338), and therefore find a way to accommodate their career striving without violating their normative role of nurturer. This suggests that the normative expectations for black and white women do not stand in complete conflict. Black women are expected to work, but in occupations that do not violate the larger female identity as prescribed by society's standards. Nevertheless, the "fear of success" motive for black women seems to be consistently lower than

⁷For the qualification of this assertion, the following quote is helpful. Black women

... are trained from childhood to become workers and expect to be financially self-supporting for most of their lives. They know they will have to work, whether they are married or single; work to them, unlike to white women, is not a liberating goal, but rather an imposed lifelong necessity. Until the past decade, the access to semiskilled and middle range of professional jobs was closed to black women by discrimination; therefore families understood that black girls must either be trained to be teachers or look forward to a lifetime of domestic or low-skilled service work. Black girls thus were given more incentive to complete their advanced education than were black boys who found that, even with a college degree, job opportunities for them were severely restricted by race discrimination. (Lerner, 1972: xxiv)

that of white women (Weston and Mednick, 1971). This holds true for black women pursuing traditionally "male" as well as traditionally "female" occupations.⁸

The literature on black women's achievement motivation also reveals that black women are more likely to be motivated to long-term career striving than white women (Fichter, 1967). This is repeatedly explained by the observation that they are less likely than white women to perceive a sex role conflict between working in the labor force, motherhood and "wifery." Black women are more likely than white women to view career and family as compatible life goals (Gurin and Katz, 1965; Mednick and Puryear, 1975). In this context Fichter suggests that "the educated Negro woman does not want, cannot afford, or is culturally conditioned against the notion of marriage and family to the exclusion of other roles" (Fichter, 1967:8). Thus, black women may be more willing than white women to make long-term plans for graduate and professional training.

In a study of black female high school students, Ladner (1971) found that the achievement motivation and career orientation of the subjects was highest when they had a successful adult role model. Nevertheless, McClendon (1976), studying females in general, reported no evidence that the background of the mother is more important for the female's achievement motivation than that of the father. It could

⁸There exists the controversial issue over whether black women historically could afford or wanted to "live up" to society's standard of femininity and therefore are not afraid to lose their femininity.

be true, however, that for black females the mother is a stronger role model than for white females. White women, on the other hand, could be more influenced by their fathers, who are the main providers in their family. This follows from the fact that black women are more likely than white women to have mothers who work full time and they therefore serve as a role model.

A study by Epstein (1973) shows that black women make their career choices earlier in life than white women and that black women are more committed to their career than white women. Epstein's measure of commitment was willingness to be in a career for the rest of one's life. A more elaborate study, done by Gurin and Gaylord (1976) casts doubt on the latter assertions. Their study suggests that the motivations and aspirations of white and black female college students are very similar.⁹

Status Attainment

The concept of status attainment is related to earlier works on occupational choice (Duncan, 1966; Blau and Duncan, 1965; Ginzberg, 1951). Occupational choice, aspirations and attained status are regarded as the result of "social and social psychological maturation

⁹Studies investigating the relationship between occupational choice and achievement motivation show different findings for males and females across race. Crockett (1962) found a positive relationship between achievement motivation (NACH) and the prestige of the chosen occupation of white college men and Littig (1968) showed that achievement and the aspirations to nontraditional occupations are related for black college men. Replicating this study for black college women, Okedejii (1971) did not find such a relationship.

structured in successive stages" (Falk and Cosby, 1975:307). Status attainment is regarded as having a processual character, evolving through socialization and being the result of past and present circumstances (Haller and Portes, 1973). "Thus, status attainment represents the search for intervening influences between the success of parents and their offspring" (Falk and Cosby, 1975:308). Two major types of intervening influences have been identified--structural factors and social psychological variables, such as the influence of significant others, educational and occupational aspirations and academic performance, collectively referred to as the "Wisconsin Model" (Sewell and Haller, 1969; 1970). The structural model as well as the "Wisconsin Model" have been almost exclusively used in tests of status attainment processes thought to affect male high school students. Only recently have models been constructed to test in combination both motivational and structural influences on male status attainment processes (Sewell and Haller, 1969; 1970).

Women's Status Attainment

Until recently theories of status attainment have been tested almost exclusively on males. It has been generally assumed that women receive status from significant male others, such as fathers and husbands. In order to challenge this assumption and due to changes in the structural arrangements in society (increased labor market participation, higher education for women, more career opportunities), several social scientists acknowledged the need for research on female

status attainment processes (Featherman and Hauser, 1976; Treiman and Terrell, 1975; McClendon, 1976). Most of these studies compare the attainment processes of men to that of women, often using a model originally designed for men. The basis for this procedure is the assumption that the processes involved in those areas are generalizable for women and therefore, the studies are replicable. Frequently these investigations (usually of white populations) come to the conclusion that the educational and occupational status attainment process is highly similar for both sexes. The most striking differences consistently emerging from the literature are prestige and income differentials for the two sexes after the same status is attained. These, however, are attributed to structural factors, such as discrimination and patriarchy.¹⁰ According to Reskin (1976), social psychological factors, such as the dynamics of family relations, do not seem to be significantly different for either sex. The only exception found is the commitment to a career, which is slightly lower for females. This finding, however, is mainly the result of viewing commitment in terms of the exclusive long-term devotion to a career. Nevertheless, it is almost invariably the female partner who sacrifices work or career for family or child rearing when such a choice is imposed.

The above mentioned studies do not incorporate issues such as marriage and fertility aspirations triggered by the traditional

¹⁰Sex discrimination has generally kept women out of high status and prestige occupations and furthermore, has affected women's income negatively. This has been justified by the assumption that women's income is only supplementary rather than essential for the family.

socialization of women. Therefore, Falk and Cosby (1975) question the applicability of the general status attainment model to females. They hold that women are often discouraged from pursuing an advanced degree and are likely to choose marriage and motherhood as "career." Thus, alternative models of status attainment were constructed particularly for females' career development patterns. McClendon (1976) extends her model by merely adding marital status, number of children and hours at work in order to account for inconsistencies in career paths. Falk and Cosby (1975) suggest an adaptation of the "Wisconsin Model" that would accommodate not only marital and fertility plans but also include information on the subjects' mother and siblings. These factors also are thought to influence females' career choices, educational attainment and occupational aspirations. These influences on women's status attainment, extended to include female teachers and other significant others, are salient for the purpose of this study in so far as they may increase our understanding of (1) the type of role model chosen by career oriented women in the past as well as the present, (2) the significance of these role models for women's motivations to pursue a career, (3) the nature of the influence (magnitude) of the role model on the subjects' career choice, educational attainment and occupational aspirations.

Another relevant factor for this study in terms of women's status attainment is a recent shift in the manner in which women perceive family and career "obligations." Recently women have become more inclined to either combine marriage and professional occupations or

devote their life exclusively to a career. Based on this shift, one may assume that the motivational background of women attaining a high level of education and aspiring to a professional career has changed focus from a traditional gender role orientation to more nontraditional life goals. The Women's Liberation Movement, structural changes and legislation have altered the social status of women and opened up opportunities for women in a variety of professional fields. Taking advantage of these shifts in the occupational structure, achievement motivated women may place priority on the educational attainment process in anticipation of a professional career rather than choose the traditional path.

Women's Status Attainment by Race

Allen (1979) suggests that the factors important in the determination of achievement orientation vary across sex and race, and consequently the patterns of attainment should vary accordingly. Processes of status attainment investigated specifically among black females are not entirely consistent with findings for females in general. The very limited literature available also reveals that the apparent absence of sex differences among whites (as concluded by studies comparing men to women in the original models of status attainment) is not generalizable to blacks (McClendon, 1976; Treiman and Terrell, 1975). Due to the fact that black women have traditionally participated in the labor market in higher numbers than white females, they seem to be more willing to commit themselves to a career. Until recently black women

have spent more time in education than black men; i.e., black women have spent more years in school and attained higher levels of education than black men.¹¹ This has been true in the past and is believed to be the result of socialization. It is thought that black parents' greater emphasis on the education of their daughters, than that of their sons is an attempt to avoid the restriction to work in domestic or other low-paying occupations; occupations traditionally most readily available to black women. Black women appear to pay particular attention to factors that will enhance their market chances. For example, Allen (1979) found that black females have higher educational expectations than white females and that the difference can be explained by black women's efforts to improve their future "marketability."

¹¹ <u>Years/school completed</u>	<u>Black men</u>	<u>Black women</u>
in 1960	7.7	8.6
in 1967	8.7	9.6
in 1969	9.4	9.8

Source: Gurin and Gaylord (1976:286).

Gurin and Gaylord also found that in 1969, 4.5 percent of all black men and 4.8 percent of all black women completed 4 or more years college.

Percent of persons age 25 and over who completed 4 years of college or more, 1979:

	<u>Black</u>	<u>White</u>
Men	8.3	21.4
Women	7.5	13.3

Source: U.S. Bureau of the Census (1980:1).

Thus, while the gap between black males and females in terms of education is narrower than that between white males and females, black men are recently gaining an edge over black women which has not been so in the past.

This is consistent with findings suggesting that the occupational choice of black women is based on economic necessity and availability of jobs in the area of study (Gurin and Katz, 1966). Nevertheless, black and white women aspire to similar occupations; they both seem to prefer gender typical professions (Allen, 1979; Mednick and Puryear, 1975; Gurin and Gaylord, 1976; Hamilton, 1975). One explanation for this trend could be that both black women and white women are influenced by society's normative female role. It also conveys "a recognition of the occupational realities which blacks and women are forced to confront and conform to in this society" (Allen, 1979:672; see also Gurin and Epps, 1975). This preference for "traditional female" occupations could also be attributed to black and white women's similar perception of the barriers associated with the pursuit of "traditional male" careers. It is furthermore possible that black women have different reasons for choosing "traditional female" careers than white women. There may be more factors inhibiting black women than white women to pursue "male" professions. Furthermore, shifts in the labor market opened more occupations considered traditionally male to white females, thereby opening jobs traditionally "reserved" for white females to black women.¹²

¹²Ransford and Miller (1983) argue that "black women are just as traditional in outlook as white women because of recent labor market experiences. There is some evidence that with more education and legal protection black women are moving out of the 'operative' and 'service' categories and into the more traditional 'clerical' category (Bureau of the Census, 1976). But these are occupations that reinforce rather than challenge sex-role beliefs; hence black female

Tangri (1972), in studying "role innovators," i.e., females with an unconventional career orientation, found that they tend to choose their careers on the basis of "personal fulfillment" rather than economic considerations. Personal fulfillment, also referred to as self-fulfillment, is usually defined in terms of the desire to reach one's full potential and ability. More specifically, the term implies in relation to women, the identification with an independent status and economic self-sufficiency. According to Gurin and Katz (1966), black women tend to base their career choice on economic necessity while white women are likely to choose careers on the basis of self-fulfillment. The tendency of "role innovators" to be mainly interested in self-fulfillment indicates that black women should be less likely to be "role innovators" than white women. According to Gurin and Katz (1966) and Mednick and Puryear (1975), this is indeed the case. Nevertheless, the definition of self-fulfillment is still ambiguous. While it is possible that black women emphasize economic considerations, these can actually be part of self-fulfillment in the sense that they give black women material independence. Thus, self-fulfillment and economic considerations are not mutually exclusive categories. In the case of many women the categories coincide.

While some social scientists argue that black women's doubly negative status (race and sex) is an asset in getting employment through

autonomy may be offset by current labor market experiences" (Ransford and Miller, 1983:58).

affirmative action programs and giving black women more and better opportunities than black men¹³ (Epstein, 1973), Allen (1979) shows that the discrepancy between achievement orientation and actual status attainment is larger for black women than for black men and whites in general. Black women's achievement orientation tends to be disproportionately high but institutional barriers prevent the bulk of career oriented black women from entering high prestige occupations.

Summary

In sum the literature cited above suggests that the limited amount of research done in the area of interest of this study is ambiguous, inconsistent, sometimes contradictory and often inconclusive. Nevertheless, some assertions can be made:

1. There are differences in the status attainment process for males and females. The differences stem from socialization practices as well as structural factors. Therefore, this study has to accommodate these differences by incorporating information on the women's mothers and role models.

2. The findings in the literature on achievement motivation and status attainment for black versus white women concentrates on females in high school or college, disregarding women in graduate programs. This study will shed some light on which of the contradictory literature is applicable to black and to white female graduate students.

¹³This is often attributed to affirmative action programs which regard women and blacks as minority groups and the assumption that corporations fill their "quotas" by hiring black women.

3. Based on the existing literature one can assume that there are some interracial differences between women along such dimensions as role models, career striving, perceived compatibility of family and career, perseverance, normative role of women and occupational aspirations. All these factors may be significant in the construction of motives that lead to a long-term commitment to education and a long-term professional career.

4. Given the very limited amount of literature available for this study and based on the fact that no such study has been done so far, it is appropriate to investigate and explore the variation by race among females, of career choice, educational attainment and occupational aspirations.

CHAPTER II

METHODS AND PROCEDURES

Black and white female graduate students have not been the focus of studies on motivations and aspirations. Nevertheless, an analysis of the literature just reviewed leads one to expect that there should be differences in the motivation patterns and educational and occupational aspirations of black and white female graduate students. Those expected differences can be put in the form of hypotheses. This chapter contains the hypotheses drawn from the literature to be tested in this study. Additionally, the design and methodological procedures used in this study are provided in this chapter.

Hypotheses

1. For the purpose of this study it is assumed that encouragement from significant others constitutes part of the motivational framework prompting the women in the sample to enter graduate school and pursue professional careers. However the role of the person who encourages the women is expected to vary by race. Specifically, given the choices of mother, father, other relative, teacher, friend or "other," black women will identify their mothers or teachers as the individuals who most encouraged them while white women will identify their fathers or peers as the persons who most encouraged them.

2. Role models identified by female graduate students will vary by race. From the list mother, father, other relative, teacher, friend

or "other," black women will identify their mothers or teachers as their role models while white women will identify their fathers or peers as their role models.

3. Female graduate students' mothers' reasons for working will vary by race. Black mothers will be reported as working primarily for financial reasons while the mothers of white women are employed in the paid labor force for reasons of enjoyment.

4. The motives identified by female graduate students for getting an advanced degree or selecting an occupation will vary by race. Specifically, black women will report "pragmatic" motives for getting a degree or pursuing an occupation while white women will report that "self-fulfillment" motives led them to pursue an advanced degree or a particular occupation. For this study "pragmatic" motivations are those which imply academic success, the promise of high income and employment security were the reasons for seeking a degree or professional occupation. In contrast, "self-fulfillment" motivations are based on edification, identity reinforcement and personal interest rationale related to the desire to expand one's knowledge without particular employment, wealth or status chances in mind. These two types of motivations were operationalized by numerous statements, each of which the respondents had to evaluate as being a major, minor or no reason for pursuing the degree or chosen occupation (see questions 24 and 25 on the questionnaire in Appendix A).

5. It is expected that among female graduate students, black women will rate their own academic performances in high school,

college and graduate school higher than white women will. The variable "academic performance" is measured by the respondents' evaluation of their performance relative to their fellow students as poor, average, good or outstanding.

6. Perceptions of the problems or barriers associated with female graduate students' career aspirations will vary by race. White women will identify problems associated with normative gender expectations such as maintaining their femininity, achieving advancement in the face of sex discrimination, dealing with family's attitudes toward their career aspirations and combining family and career obligations. Black women will emphasize problems related to their race such as teacher discrimination, limited advancement due to their race and limited mate selection due to the relatively small pool of equal or higher status black males available. Each of the respondents was asked to indicate whether or not any or all of the above "problems" was a major, minor or not a problem in their career aspirations (see question 28 on the questionnaire in Appendix A).

7. Racial discrimination in academic and employment experiences will be more frequently cited than sexual discrimination by black women. There will be no difference in the sexual discrimination encountered by black and white women in their academic and work experiences. The experience of discrimination was operationalized by five types of discrimination (employer, departmental, income, teacher and counselor discrimination) by race and sex. The respondents were asked to indicate whether or not they had been discriminated against in any of these ways.

8. Black women are more likely than white women to depend on financial assistance from an educational institution for their advanced educational training. This hypothesis is based on the assumption that the pursuit of a graduate degree requires extensive financial resources and does not allow full time employment. Therefore women in graduate school have to rely on some source of financing. However, it is assumed that white women are more likely than black women to have personal sources of financing such as parents or husbands. The respondents indicated which of the sources of financing for their graduate training is the most important one: scholarship, teaching assistantship, grant, parents, husband, own source of income, or "other."

9. Black women, due to their presumed dependence on institutional funding, will spend fewer years in school before completing their degree than white women. The time period spent for the completion of each advanced degree (B.A., M.A., Ph.D.) was assessed by the women's reports of actual or expected completion dates for the degrees. The differences in years between the respective dates was computed. The resulting measures of time elapsed between degrees, when the degree was not yet received is the respondents' estimation of the time needed for its completion. Therefore the test is of differences in expectations rather than differences in actual time taken to complete the degrees.

10. Black women are more likely than white women to have dropped out of graduate school for financial reasons. Conversely,

white women are more likely than black women to have dropped out of graduate school for family related reasons. The reasons for dropping out of school were operationalized by an open ended question, the responses to which were coded into the categories financial, family, health or employment reasons.

11. Black women will be more overrepresented than white women in traditional majors and occupations. The majors and occupations pursued were categorized according to the percentage of women either receiving degrees in the fields or being employed in the area nationwide. Thus, the majors were trichotomized into the categories: non-traditional (those fields in which less than 25 percent of the people receiving an advanced degree (M.A. and Ph.D.) were women in 1980 according to the U.S. Bureau of the Census, 1983), neutral (those fields in which between 26 and 50 percent were women), and traditional (those fields in which 51 percent and over were women in 1980). The same procedure was followed for the occupations pursued. A nontraditional profession was one in which 25 percent or fewer women were employed in 1981 (U.S. Bureau of the Census, 1983), a neutral profession consisted of 26-50 percent women and a traditional occupation was defined as having 51 percent or more female employees.

12. Whereas most graduate students decide on their major fields of study before entering graduate school, the time of the decision is expected to differ by race. It is expected that black women will report making their career choice earlier than white women. The respondents were asked to indicate whether they had decided on their

current major before or during high school, during or after college, or during graduate school.

13. The gap between real and ideal occupational aspirations will be greater for black women than for white women. The differential between real and ideal aspirations was operationalized by computing the difference between the reported occupation pursued (real) and the reported ideal occupation. For this purpose the occupations were ranked in accordance with the "1980 Standard Occupational Classification Code" of the U.S. Bureau of the Census (1982). An educational and income hierarchy is implied in this scale.

14. There is some reason to believe that women in graduate school see themselves as trailblazers--as breaking out of the traditional female role. The extent to which they perceive themselves as traditional or not should influence the type of occupation they choose. The more nontraditional the woman perceives herself, the more likely she is to choose a nontraditional field or career. This should be true regardless of race. However black and white women's perception of what is the traditional female role is expected to vary.

Therefore, it is expected that black and white women will differ (1) in the characteristics they ascribe to their image of the "traditional woman," (2) on how they describe themselves in terms of these characteristics, (3) on their perception of their mothers' "traditionality," and (4) on their perception of what constitutes a "traditionally female" occupation. The variables "traditional image of women," "image of yourself," and "image of your mother" were operationalized by

providing the respondents with a list of 31 stereotypical and non-stereotypical characteristics associated with the role of women in American society from which they selected the ones they perceived to be applicable to the respective image (see questions 30, 30a, 30b and 31 on the questionnaire, Appendix A).

Study Design

Sample

To test these hypotheses, responses to items on a specially designed questionnaire were solicited from black and white women currently enrolled in graduate school. Since this is an exploratory study, no attempt was made to draw a representative sample of black and white women currently enrolled in graduate school nationwide. Instead a sample was drawn from the population of enrolled female graduate students at a large Southern state university.

The decision to obtain a sample from a major Southern university may seem to be unwise. Stereotypes about the South would lead one to believe that (1) differences between black and white women ought to be stronger in the South than elsewhere, and (2) that the very act of attending graduate school and of pursuing a professional career is more deviant for women in the South than elsewhere. Therefore, the women who attend graduate school in the South should be more likely than most female graduate students to be aware of being strongly motivated to follow that path. For an exploratory study such as this these possible biases do not represent the same problems they might

for a more ambitious study. While the biases are in favor of confirmation of the hypotheses, we can infer that if they are not confirmed they are not likely to be confirmed in the general population. If they are confirmed grounds for a cross-sectional study are established.

Through the cooperation of the Dean of the Graduate School, at this university, a list of the entire female graduate student population was obtained. In addition to names, addresses and phone numbers, this listing included the students' majors, department affiliations and degree programs. A separate list of all black women in graduate programs, containing comparable information was obtained through the cooperation of the head of the Black Studies Department.

According to these sources, 2,640 female graduate students were enrolled at this university in the fall of 1983. Of the original 2,640, 102 were of foreign origin and were eliminated from the population because motivations based on foreign cultural expectations would interfere with the validity of a study based on the American institutional and cultural arrangements. To further control for extraneous influences on subjects' socialization and motivation, the questionnaire included "place of birth," to be specified as country and city.

Another 737 women were eliminated from the population because they were not enrolled in a degree program. The decision not to include these women was made so that only women with a high probability of being career oriented, i.e., women who are engaged in graduate work to further their professional career, would be included in

the study. Presuming that socialization may differ between the professionally career oriented and the not professionally career oriented women, the latter were excluded from the study.

Of the 1,801 women pursuing a degree in a specific major, 1,722 were white and 79 black. The data in this study for white women are based on a random sample of 350; approximately 20 percent of the population. Due to the fact that the black female graduate student population at the university is only 79 individuals (4.38 percent), the decision was made to base the data for the black women on the entire black female graduate student population rather than a random sample thereof. Thus, the combined total sample of women included in the study was 429.

After the final list of 429 subjects was established, the researcher mailed out a questionnaire to the respective departments through campus mail. Due to the fact that various departments do not have mailboxes for all their graduate students and that numerous graduate students are rarely on campus while involved in working on their dissertations, several questionnaires were returned and subsequently were mailed to the subjects' home address. Of the 429 contacted 189 returned the questionnaire. One hundred and sixty of the respondents were white, 28 were black and one was hispanic. The overall return rate was 44 percent. The return rate for white women was 45.4 percent and for black women 35.4 percent. Special efforts were made to increase the response rate, with some success. Women, particularly black women, on the sample list were contacted by telephone

to determine if they had received the questionnaire and were planning to or had returned it. Those contacted expressed interest in the questionnaire and in those cases where it had not been returned, the women stated that the time constraints of graduate school had kept them from completing the questionnaire. No difference in terms of major and degree pursued could be found between those women who returned the questionnaire and those who did not. The low return rate however may have introduced a bias in this study. Therefore all findings will be treated as those derived from an exploratory study in which the response rate was lower than desirable.

Instruments

The questionnaire consisted of 31 items (see Appendix A) and was designed to supply self-reported information on family background, educational development patterns, influence of significant others on the subjects, motivations for pursuing a degree and career, perceived problems associated with the pursuit of a career, perceptions of the characteristics and occupations of the "traditional women," and perceptions of own and mother's possession of "traditional woman" qualities. The aim of the questionnaire was to obtain some quantifiable information about the subjects' educational path and career plans.

The questionnaire consists mainly of structured questions, including items in a Likert scale format. The few open-ended questions were about place of birth, occupations, majors and degrees. The occupations were classified according to the U.S. Bureau of the Census (1982) categorical format and later ranked according to the U.S.

Bureau of the Census' (1983) report on the percentages of women in the occupations nationwide into "traditional," "neutral" and "nontraditional" occupations for women.

Statistical Procedures

The statistical plan for this study involved examining the relationships between the various independent and dependent variables and then examining multivariate relationships specified by the hypotheses. To accomplish these tasks, a test for the difference between proportions (Z test) and multiple classification analysis were employed. These statistics were selected because of the predominance of nominal level or categorical data, which exclude the application of most linear models of analysis.

The Z test for differences between proportions is the appropriate nonparametric statistical device for the purpose of this study because it requires nominal level data or categorization. While this test does not require normality, it can be interpreted with the help of standard Z tables (Blalock, 1972). The critical value of Z for the conventional .05 level of significance, 1.645, was adopted in this study (Neher and Wasserman, 1974). In other words, if the computed Z score was equal to or exceeded the critical value of 1.645, the null hypothesis was rejected. (For details on the equation used for the computation of Z, see Appendix C.)

Multiple classification analysis (MCA) was used to test for the effect of intervening variables implied by the hypotheses. MCA is a method which allows for the use of a mixture of interval, ordinal and

nominal level variables (Andrews et al., 1973). MCA makes it possible for example, to examine the effect of race (the major dichotomous independent variable) on whether or not the respondents' mother is cited a role model (a dichotomous dependent variable), controlling on whether or not the mother worked (an intervening dichotomous variable).

While MCA produces statistics directly comparable to correlation coefficients and betas, the tests of significance based on F ratios have to be interpreted with caution. When an F value indicates statistical significance, the amount of the variance explained by a particular variable may be minimal. Furthermore, the use of mixed levels of analysis makes tests for interaction necessary when two or more independent variables are used at the same time. If interaction is found, it is not appropriate to consider the two or more variables together as the result of the analysis will be uninterpretable. All such tests were made in this study and the results showed interaction in every case where two or more independent variables were considered. Thus, it was not possible to conduct multivariate analysis to test for the mediating effect of selected variables. In other words the use of MCA did not contribute to the study's conclusions. The results of MCA are not individually reported. Instead it should be understood that hypotheses involving any form of controls or additive implications were not tested due to the statistical analysis problems encountered with MCA. A less robust statistical tool for doing multivariate analysis was not used because the number of respondents in the study, particularly the

absolute number of black women, was small. Therefore any multivariate analysis would have suffered from problems similar to those encountered using MCA.

CHAPTER III

DATA ANALYSIS

Background Characteristics of the Respondents

The respondents consisted of 160 white women, 28 black women and 1 hispanic woman. The decision was made to exclude the hispanic subject from the analysis because it was assumed that she was exposed to different cultural influences than either the black or the white women.

Although only 35.4 percent of the 79 black women pursuing a graduate degree responded to the questionnaire, they account for 14.8 percent of the sample, which is an appreciably higher percentage than their proportion (4.33 percent) of the entire female graduate student body. Therefore, while black women are underrepresented in graduate school in general, they are proportionately well represented in this study.

Only 2 of the 188 respondents were born outside of the United States. They were not eliminated from the analysis because they stated that they had grown up in the United States. Eighty-two point one percent of the black women and 66 percent of the white women were born in the South. The fact that the black womens' origins are predominantly Southern while that of white womens' is less so, may reflect a difference in geographic mobility between black and white

women.¹⁴ The remainder of the geographical distribution is shown in Table 1.

In terms of their age distribution, the two groups of women are relatively similar (see Table 2); however, white women on average have a tendency to be younger than black women, who are more likely than white women to be between the ages of 31 and 40. This finding could be related to the fact that more of the black women (21.4 percent) than white women (13.1 percent) are divorced (see Table 3), a fact that may have delayed their graduate school entry. Apart from the difference in the number of divorcees, the data on the marital status of the female graduate students are similar.

Related to the age differential and the number of black divorcees is the pattern found in terms of the date of the first marriage. More black women (10.7 percent) than white women (4.5 percent) married before college and also more black women (10.7 percent) than white women (5.7 percent) married during graduate school (see Table 4). Furthermore, more black women (42.9 percent) than white women (30 percent) reported having one or more children (see Table 5). This finding may be related to black women's tendency to marry earlier.

Other background variables include the respondents' parents' education and occupation (see Table 6). More black women than white

¹⁴It is possible that there is a systematic difference between these women who chose to study in the South (regardless of origins) and those who do not. This might affect the generalizability of the study. This is a possibility that could not be examined or controlled for in this study.

Table 1
Geographical Distribution of Place of Birth by Race

Region	Percent white women (<u>N</u> = 160)	Percent black women (<u>N</u> = 28)
South	66.0	82.1
Northeast	10.9	10.7
Midwest	16.0	3.6
West	5.1	0
Southwest	1.4	0
Other	.6	3.6

Table 2
Age Distribution of Female Graduate Students by Race

Age	Percent white women (<u>N</u> = 158)	Percent black women (<u>N</u> = 27)
20-30	58.1	50.0
31-40	26.4	35.6
41-56	14.0	10.7

Table 3

Marital Status of Female Graduate Students by Race

Marital Status	Percent white women (<u>N</u> = 160)	Percent black women (<u>N</u> = 28)
Single	40.0	39.3
Married	44.4	39.3
Separated	1.9	0
Divorced	13.1	21.4
Other	.6	0

Table 4

Time of Marriage Relative to Educational Status
of Female Graduate Students by Race

Time of Marriage	Percent white women (<u>N</u> = 157)	Percent black women (<u>N</u> = 28)
N/A	41.4	39.3
Before college	4.5	10.7
During college	17.8	14.3
After college/Before graduate school	28.7	25.0
During graduate school	5.7	10.7
After graduate school	1.3	0
Other	.6	0

Table 5

Percent of Female Graduate Students Having Children by Race

Children	Percent white women (<u>N</u> = 160)	Percent black women (<u>N</u> = 28)
Have children	30.0	42.9
Have no children	70.0	57.1

Table 6

Comparison of Female Graduate Students' Parents' Education
by Race

Highest level of education attained	Percent white women (<u>N</u> = 160)		Percent black women (<u>N</u> = 28)	
	Father	Mother	Father	Mother
High school	32.0	41.6	52	48
College	36.0	43.6	32	36
Graduate school	31.4	14.7	16	16

women reported that their fathers' education did not exceed high school ($\underline{Z} = -1.97$). (Throughout this study $\underline{Z}$ scores for the difference in proportions tests are reported only when $\underline{Z}$ is statistically significant at the .05 or better level. Therefore when a $\underline{Z}$ score is not reported for a particular difference of proportions, the difference is not statistically significant.) Only 16 percent of the black women (31.4 percent of the white women) have fathers with some graduate school experience or a professional degree ($\underline{Z} = 1.97$). Table 6 suggests that while white women tend to have mothers with less education than their husbands ($\underline{Z} = -3.19$), a similar pattern for black women does not hold. This finding is consistent with those of Gurin and Gaylord's (1976) study which indicates that black women have as many or more years of educational experience as black men.

The graduate women's parents' occupations by race are presented in Table 7. White women tend to have more fathers than mothers in professional occupations ($\underline{Z} = 5.63$); no such pattern is observed for black women. (Instead the pattern is reversed but not marked.) The difference in proportions between black and white women's fathers in professional occupations also proved to be statistically significant with a $\underline{Z}$ value of 2.34. The parental occupational distribution by race follows from the educational attainment of the parents by race.

A higher proportion of mothers of white women than black women were reportedly homemakers ($\underline{Z} = 2.11$). The bivariate relationship between race and mother's work status, as measured by whether or not the mother worked most of the time the respondent was growing

Table 7
Comparison of Female Graduate Students' Parents'
Occupation by Race

Occupational category	Percent white women (N = 160)		Percent black women (N = 28)	
	Father	Mother	Father	Mother
Professional	53.8	24.5	25.0	39.3
Sales and technical support	17.5	11.9	14.3	10.7
Service	2.5	2.5	14.3	3.6
Crafts	16.3	1.3	21.4	0
Farming	5.0	0	10.7	3.6
Laborer	5.0	3.1	14.3	7.1
Homemaker	—	56.6	—	35.7

up, was statistically significant ($Z = -2.21$). Black women's mothers were more likely to work (57.1 percent) than white women's mothers (34.8 percent). This pattern confirms the notion that black women in higher education are more likely to have mothers in the labor force and therefore are in a better position to use their mothers as role models than white women whose mothers tend to be homemakers. The validity of this assumption, however, is yet to be tested.

Testing the Hypotheses¹⁵

1. No support was found for the notion that black women are likely to be most encouraged to pursue graduate work and a career by their mothers and teachers while white women by their fathers and peers. Instead no differences were found between black and white women. In general, regardless of race mothers were more likely than any others to have encouraged the women. Further, it is interesting to note that 11.5 percent of the white women and 7.1 percent of the black women pointed to themselves as the most important person encouraging their career aspirations. Since mothers were cited by only 25 percent of the white women and 32 percent of the black women and the next most popular categories were fathers, teachers and peers with approximately 10 to 15 percent of the citations, self-encouragement was a relatively popular choice for black and white women. The

¹⁵In testing the hypotheses, a p of .05 was adopted as indicator of statistical significance. This significance level was derived from Z-tests for the difference between proportions. Tables of all other findings produced by this study can be found in Appendix B.

literature does not particularly lead me to suspect that self-encouragement is important to women pursuing a graduate degree and career. Therefore, in this study self-encouragement was not provided as a specific option--rather women gave this response under the open-ended "other" category. If it had been stated as an option, more women might have chosen it. Future studies might do well to pursue this possibility.

2. No support was found for the propositions that black women are more likely than white women to choose their mothers as their role models while white women are more likely than black women to choose their fathers. However, as predicted, black women (22.2 percent) are more likely than white women (8.5 percent) to select their teachers as role models ($Z = -1.65$). Furthermore, a female relative is more likely to serve as a role model for black women (18.5 percent) than for white women (4.7 percent) ($Z = -1.80$). So while we cannot say that mothers are more likely to serve as role models for black women than white women (33.3 percent and 36 percent, respectively), it may be the case that black women are most likely to use women in general as role models, given that mothers and female relatives account for 51 percent of the black students' role models and only 39 percent of the white students' role models. If this is true, it may be because black women tend to have been in the paid labor force in larger numbers for a longer period of time than white women and thus, female relatives and mothers can set a working example for black women's career motivations. The top three role model choices of black women

account for 74 percent of their responses, while only 64 percent of the choices of white women were concentrated in their top three choices. These tendencies revealed by the data need to be investigated in further studies. It may be that while black women use other women as role models because there are a large number of black women in the paid labor force to act as role models for them, white women use a more diverse set of role models because of the wider variety of role models existent in the "white middle class" milieu and the relatively small numbers of females in the labor force in this milieu.

3. No support was found for the notion that the female graduate students' mothers' reasons for working would vary by race. The largest proportion of both black (44.4 percent) and white (29.9 percent) women reported that their mothers worked for financial and enjoyment reasons. One possible explanation for this lack of differences could be that the black mother's occupational distribution is similar to that of the white mothers. Although it can be assumed, based on the differential in the respondents' fathers' occupations by race, that the black families have a lower income than the white families, the black families in this sample can not be considered to be predominantly lower class. Thus, it can be argued that black mothers are not forced to work exclusively for financial reasons, or more to the point, most of the black and white employed mothers had educations that allowed them to obtain jobs that could be considered to be "enjoyable."

4. I proposed that the motives for pursuing a degree or an occupation would vary by race. To test this idea respondents were asked to indicate to what extent the following motives for pursuing a degree applied to them: the degree is needed for the career, is needed to get a high paying job, the degree will enhance knowledge, the field of study is interesting, a degree represents an accomplishment, the department has good stipends, my grades are good in the field, and it is easier to continue school than finding a job. The responses to the motive questions were originally ranked according to "major motive," "minor motive" and "not a motive" for pursuing the degree. The categories "major motive" and "minor motive" were collapsed in order to determine whether the respondents regarded the various motivations as any reason at all. Only one of the motives, namely the need of the degree to obtain a high paying occupation, differentiated respondents by race. Eighty one point four percent of the black women and 64.6 percent of the white women reported being motivated by the fact that they needed the degree for well paid occupations. ($Z = -1.93$).

The same procedure was followed for analyzing motivations for the occupation pursued. The motives the respondents chose from were: demand for the occupation, the occupation is challenging, the occupation pays well, the occupation involves a lot of responsibility and decision making, the occupation allows for a lot of freedom, and the occupation has high status. Black and white female graduate students' motives for selecting an occupation differ with respect to "occupational

demand," "high income" and "responsibility and decision making." Fifty two point five percent of the white women and 73.1 percent of the black women considered occupational demand as a motive for pursuing the selected occupation ($\underline{Z} = -2.15$). Furthermore, 45.3 percent of the white women and 74.1 percent of the black women reported that high income is a motive for their career involvement ($\underline{Z} = -3.04$). More black women (96.4 percent) than white women (80.9 percent) considered responsibility and decision making as a motive ($\underline{Z} = -3.12$).

These findings support the hypothesis that black women are more motivated by pragmatic considerations than white women. Nevertheless, while the results show black women are more likely than white women to be motivated by pragmatic factors, they do not suggest that black women are any less likely than white women to be motivated by "self-fulfillment motives." There are no appreciable differences in the proportion of black and white women citing self-fulfillment motives. Indeed, more black women than white women said the reason they selected a particular occupation was because it offered responsibility and decision making opportunities (96.3 percent vs. 80.9 percent). Thus, the pragmatism--self-fulfillment dichotomy does not differentiate black and white female graduate students' motives for pursuing professional careers. Instead pragmatic and self-fulfillment motives are important to both black and white women; however pragmatic concerns are likely to motivate substantially more black women than white women.

5. No differences were found between black and white women's perceptions of their high school performance relative to their fellow students. However differences were found for college performance in the opposite direction of that predicted. The bivariate analysis shows that there is a tendency for black women to be less likely (17.9 percent) than white women (31.9 percent) to perceive their college performance as outstanding ($Z = 1.71$). No differences were found between the two groups of women on their perception of graduate performance. Thus, the hypothesis that black women might be more motivated by academic success than white women (measured as perceived academic performance) does not hold.

Why white and black female graduate students should perceive their academic performance similarly in high school and graduate school but not college is not readily explainable. It may be that the high school attended by the black women did not prepare them as well for college as those attended by white women. And if the black women were not as well prepared for college they may not have done as well until they "caught up" or may have perceived themselves as being at a disadvantage and not performing well.

6. Support is mixed for the idea that the problems thought to be associated with career aspirations vary by race. The respondents were asked to indicate whether or not a number of things had been a major, minor or no problem for them. The major and minor responses were collapsed. The respondents assessed family problems, normative gender role problems and race and sex discrimination problems.

Neither black (3.7 percent) nor white (10.1 percent) female graduate students were likely to report being afraid to lose their femininity through their career orientation. This indicates that Horner's (1970) argument of the incompatibility of femininity and career orientation as expressed in women's fear of success does not hold true for this sample of women. It could be the case that the fear of the loss of femininity is not as important a problem for graduate students as for college students because their career involvement is more advanced.

Nevertheless, 25.9 percent of the black women and 8.8 percent of the white women consider finding a mate a problem ($\underline{Z} = -1.96$). Furthermore, 71.4 percent of the black women and 47.1 percent of the white women regard employer discrimination as problematic ($\underline{Z} = -2.54$). More black women (37 percent) than white women (14.6 percent) also reported viewing teacher discrimination as a problem ($\underline{Z} = -2.30$) and while 67.8 percent of the black women feel their career advancing may be problematic because of their gender, 82.1 percent regard advancement will be a problem because of their race.

In general these findings are not supportive of the hypotheses posed for white women. White women are not more likely to regard problems related to their normative role as problematic than are black women. Nevertheless, the evidence suggests there is support for the hypotheses posed for black women, that indeed black women are more likely to regard limited mate selection, teacher discrimination and employer discrimination as well as limited advancement because of their race as problems. These patterns indicate that while black and white

female graduate students both think they face similar problems, the list of problems for black women is longer than that for white women; black women have additional problems based on race.

7. Both groups of women reported having experienced similar amounts of departmental, income, professor and counselor sex discrimination, supporting the hypothesis as stated. However, in opposition to the stated hypothesis, black women reported having encountered a similar amount of sex and race discrimination. For example 28 percent of the black women indicated they had experienced employer race discrimination while 20 percent said they had experienced employer sex discrimination. The comparable figure for white women was 21.4 percent. Similarly, 37.5 percent of the black women reported professor discrimination on the basis of sex and 37.5 percent based on race. Of the white women, 34 percent reported professors discriminated against them on the basis of sex. Thus, racial discrimination for black female graduate students does not appear to be larger than sexual discrimination.

8. When the sources of financing graduate education were collapsed into "institutional funding" versus "noninstitutional funding" no statistically significant differences appeared by race in contrast to expectations. In other words, a similar number of black (53.6 percent) and white women (49.7 percent) received funds through the university. The women differed however, according to the type of institutional funding they receive. Forty two point nine percent of the black women were on scholarships as opposed to only 5.7 percent of

the white women ($\underline{Z} = -3.93$), who tended to be on teaching assistantships (40.9 percent). Only 10.7 percent of the black women depended on teaching assistantships as their main source of financial support ($\underline{Z} = -4.30$). Thus, the assumption that black women are more dependent on institutional funding does not hold. Nevertheless, the finding that they are disproportionately funded by scholarships has several implications which will be discussed in the section "Conclusions and Implications."

9. The assumption that black women will spend fewer years getting their degrees than white women is not supported by this research. The time elapsed between high school and the B.A. degree, the B.A. and (expected) M.A., (expected) M.A. and (expected) Ph.D., is not different by race. This finding follows from the lack of support for hypothesis 8. As black women are not more likely to be dependent on institutional funding than white women, the speed with which the respective degrees are completed should also not differ by race.

10. The differences expected to exist between black and white women on dropping out of school were not supported. Both groups of women are equally likely to have dropped out of graduate school for financial, employment or family related reasons. Again this result follows from previous findings (hypotheses 6 and 8). If black women and white women are equally likely to be dependent on financial assistance, no differences by race are expected to occur in terms of dropping out of school on the basis of financial pressure. As white women are not more likely to regard the combination of family and career as a

problem than black women, they also do not drop out of school because of family related reasons in higher rates than black women.

11. The hypothesis that the more "traditional" a major or occupation is rated the more likely black women are to choose it as opposed to the more "nontraditional" career, is partially supported by this research (see Table 8). White women seem to be more likely than black women to choose a "nontraditional" career. The majors were ranked by the degree to which they were "traditionally female," in accordance with the percentage of women receiving advanced degrees in the respective fields nationwide (U.S. Bureau of the Census: 1983).

As did prior studies, I found that black women are underrepresented in "nontraditional" fields of study. While 23.3 percent of the white women have "nontraditional" majors, only 7.1 percent of the black females do ($\underline{Z} = 2.72$). The difference becomes even more obvious when only the three most "nontraditional" majors are considered, namely engineering, agriculture and the natural sciences. Twenty one point three percent of the white women and none of the black women chose these categories ($\underline{Z} = 3.04$).

If the majors are trichotomized into nontraditional, neutral and traditional categories, 39.3 percent of the black women as compared to 18.8 percent of the white women fall into the neutral category ($\underline{Z} = -2.10$). This is consistent with Allen's (1979) claim that black women shift from traditional fields to the more neutral fields of study. The proportion of black and white women choosing traditional majors is similar: 58.1 percent of the white women and 53.6 percent of the black women.

Table 8
Female Graduate Students in Majors by Race

Types of majors	Percent white women (<u>N</u> = 160)	Percent black women (<u>N</u> = 28)
<u>Nontraditional</u>		
1. Engineering	6.3	0
2. Agriculture	1.9	0
3. Natural sciences	13.1	0
4. Business	1.9	7.1
<u>Neutral</u>		
5. Planning	1.3	10.7
6. Social sciences	17.5	28.6
<u>Traditional</u>		
7. Languages	10.6	3.6
8. Communications	5.6	3.6
9. Education	28.1	39.3
10. Nursing/health related	9.4	7.1
11. Home economics	4.4	0

When occupations are analyzed in the same fashion described for majors, no statistically significant differences are found by race. In contrast to the expectation stated for this study, black and white women do not differ on their career choice when measured by the "traditionality" of the occupation pursued. This pattern may be due to the fact that most of the women, disregarding race, pursue professional occupations in general and traditionally "female" occupations in particular.

12. Support was not found for the assumption that black and white women differ on when they decide on their major. Instead, the majority of the respondents reported they decided on their current major during or after college (75.9 percent of the white women and 62.9 percent of the black women). Both groups of women seem to have based their choice of major on college experience rather than on the specific occupation or on early counsel of their mothers or other role models. While mothers' work status might be related to the decision to pursue a career, it is not related to the choice of major. Thus, the hypothesis that due to the high labor force participation of black mothers black women decide on their major earlier than white women, does not hold.

13. Support was not found for the hypothesis that the gap between real and ideal occupational aspirations will vary by race. There were no differences found by race. Differences were also lacking between black and white female graduate students on the gap between real and alternative occupation considered. The disparity

between these findings and those of others on blacks in general and black youth in particular may be due to the relatively few black women in this sample that could be described as originating in the "black lower class." Furthermore, as all women in the sample aspire to professional careers, the measuring in aspirations is at best problematic.

14. To study the relationship between self-perception of traditionality and the traditionality of occupational choices respondents were asked about their "image of the traditional woman," their image of their mothers and their image of themselves with respect to 31 status and personality characteristics. This also allowed for an examination of the degree to which there was a correspondence between black and white female graduate students' images of (1) the traditional woman, (2) their mothers, and (3) themselves. Furthermore it made it possible to examine by race the congruence between one's perception of the traditional woman, one's mother, oneself and the traditionality of one's career choice.

An analysis of bivariate relationships between race and each of the 31 status and personality characteristics shows that the black and white women's perceptions of the traditional woman are statistically significantly different only on three features of the traditional image of the woman: self-reliant, loving and nurturant (see Table 9). While 33.1 percent of the white women reported that the traditional woman is self-reliant, only 17.9 percent of the black women did so ($Z = 1.86$). More white women (93 percent) than black women (78.6 percent) also thought of the traditional woman as loving ($Z = 1.79$). Finally, fewer

Table 9

Percentage of Women Ascribing Selected Characteristics
to Their Image of the "Traditional Woman"

Characteristics	Percent white women (<u>N</u> = 157)	Percent black women (<u>N</u> = 28)	<u>Z</u> scores > 1.645
Self-reliant	33.1	17.9	1.86
Loving	93.0	78.6	1.79
Nurturant	83.4	57.1	2.65

black women (57.1 percent) than white women (83.4 percent) considered the traditional woman to be nurturant ($\underline{Z} = 2.65$). This pattern contradicts the commonly held view that black women are socialized to be self-reliant and that the black woman's role is directed towards being nurturant and loving.

When the women were asked to describe themselves by using the same list of characteristics, the two groups differed significantly along three dimensions (see Table 10). Fewer black women (7.7 percent) than white women (25.8 percent) ($\underline{Z} = 2.96$) considered themselves to be homemakers. More black women (76.9 percent) than white women (56 percent) ($\underline{Z} = -2.35$) regarded themselves as being assertive. More white women (39.6 percent) than black women (19.2 percent) ($\underline{Z} = 2.42$) reported being controlled.

In describing their mothers, four differences were observed between black and white women (see Table 11). More black women (48.1 percent) reported that their mothers were employed full time for financial reasons than did white women (28.1 percent) ($\underline{Z} = -1.93$).

Table 10

Percentage of Women Ascribing Selected Characteristics
to Themselves

Characteristics	Percent white women (<u>N</u> = 159)	Percent black women (<u>N</u> = 26)	<u>Z</u> scores > 1.645
Homemaker	25.8	7.7	2.96
Assertive	56.0	76.9	-2.35
Controlled	39.6	19.2	2.42

Table 11

Percentage of Women Ascribing Selected Characteristics
to Their Mothers or Female Role Models

Characteristics	Percent white women (<u>N</u> = 154)	Percent black women (<u>N</u> = 27)	<u>Z</u> scores > 1.645
Full time employment for financial reasons	28.6	48.1	-1.93
Passive	25.3	7.4	2.96
Domestic	61.0	40.7	2.01
Independent	42.2	66.7	-2.52

Fewer black mothers (7.4 percent) were characterized as passive than white mothers (25.3 percent) ($Z = 2.96$). And more black women (66.7 percent) than white women (42.2 percent) reported their mothers are independent.

If we examine the patterned responses to images of self and mother by the black and white female graduate students, another difference emerges. More of the black women than the white women describe their mothers as deviants from the mainstream portrayal of a "traditional woman" and even more of the black women than white women see themselves as deviating even further from the traditional stereotype than their mothers. The difference in images of mothers may be attributed to the greater likelihood of black women working outside the home. Working outside the home may reduce the probability of their being perceived as passive or domestic and as more independent than white mothers. A similar pattern applies to the respondents themselves where it can be assumed that the mother's work status and the associated characteristics have influenced the daughters' characteristics.

In order to determine how "traditional" the respondents were, bivariate analysis was used, disregarding race, to find out to what degree the characteristics assigned to the traditional woman coincided with their self description. In other words, rather than imposing a standard of what constitutes a traditional woman, the respondents' own images of traditionality were compared with their images of themselves. This comparison was made rather than a comparison of self image with

a standard depiction of the traditional woman because it was noted that the respondents did not overwhelmingly agree on what constitutes a traditional woman. Several patterns emerged which indicate that female graduate students consider themselves as nontraditional. Thus, 72.7 percent of those regarding the role of homemaker as traditional reported not being a homemaker. Eighty point five percent of those not regarding the traditional woman as achieving considered themselves as such. At the same time, however, evidence for the women's traditionality can be observed. Fifty seven point one percent of the women ascribing "nurturant" to the traditional woman also consider themselves to be nurturant. Furthermore, 81.3 percent of those regarding the traditional woman as supportive are also supportive. These patterns do not allow any clear cut conclusion, as they are in contradiction to one another. Thus, from this analysis one can not assert that female graduate students are either traditional or nontraditional. Instead one might hypothesize that they disregard attributes that have come to have negative connotations for them and maintain attributes with positive meanings for them regardless if the attribute shows traditionality.

Subsequently bivariate analysis was employed to determine whether self perception in terms of the women's concept of traditionality is related to the traditionality of the major chosen. Three of the characteristics were found to be related to choosing a nontraditional major: being single, being a single mother and being aggressive. Seventy one point four percent of those not regarding themselves as single were in nontraditional majors. Ninety two point nine percent of

those that are single mothers are in nontraditional majors. Seventy five point six percent of those regarding themselves as aggressive are in nontraditional majors. Again, no clear conclusion can be drawn. Nevertheless, being a single mother and being aggressive are non-stereotypical features of the normative role of women and both appear here to be related to nontraditional career involvement.

In order to determine more clearly whether the traditionality of the major and occupation pursued is related to the female graduate students' perception of the traditional woman and their perception of themselves, two new variables were created: (1) all 22 personality characteristics assigned to the traditional female by the respondents were combined with those assigned to themselves in order to determine the degree of congruency between their image of the traditional female and themselves, and (2) the majors and occupations pursued were used as one variable each with an intensity "scale": nontraditional (1), neutral (2) and traditional (3). MCA was used to determine whether there is a relationship between the congruency of the image of the traditional woman with the women's self perception and the traditionality of the major or occupation pursued by race. In terms of the occupation pursued, the results of MCA show an Eta of .38 and a Multiple R Squared of .147, which indicates that approximately 15 percent of the variance of selecting a traditional occupation is explained by the congruency between the female graduate students' self perception and that of their image of the traditional woman. When majors are considered, the resulting Eta is .30 and the Multiple R Squared is

.089, indicating that approximately 9 percent of the variance in selecting a traditional major is explained by the congruency between the women's self perception and their image of the traditional woman. Race did not affect these results. In other words, the more similar the women perceive themselves to be to their image of the traditional woman, the more likely they are to choose traditional careers in terms of majors and occupations, disregarding race.

When the characteristics assigned to the traditional woman, self and mother were compared across race, an interesting pattern was observed (see Tables 12, 13, 14). Overall, the respondents' image of their mothers is not the same as their image of the traditional woman and their own image of themselves is even further removed from the aggregate image of the traditional woman.

Nevertheless, more differences were found between white respondents and their mothers than between black respondents and their mothers. In other words, on average more black women than white women seem to describe themselves in similar terms to those they use for their mothers. This pattern was observed along the dimensions of full-time employment for financial reasons, passivity, being domestic, emotionally expressive, nurturant, submissive and being providing. Only in terms of assertiveness and decisiveness did the black women differ significantly from their mothers while the white women did not. This could indicate that mothers of the black women differ overall more ($Z > 1.645$) from the mainstream traditional role than the mothers of the white women. From this evidence one can conclude that black and

Table 12

Status Characteristics Ascribed to the Image of the Traditional Woman, Respondents' Mothers and Themselves by Race

Characteristic	Person ascribed to	Percent white women*	Percent black women**
Part time employment (financial)	Traditional woman	40.1	28.6
	Mother	13.0	7.4
	Self	12.6	7.7
Part time employment (enjoyment)	Traditional woman	11.7	22.2
	Mother	28.0	11.1
	Self	15.7	3.8
Full time employment (financial)	Traditional woman	17.8	21.4
	Mother	28.6	48.1
	Self	42.1	38.5
Full time employment (enjoyment)	Traditional woman	12.1	11.1
	Mother	22.1	33.3
	Self	50.3	46.2
Wife	Traditional woman	88.5	78.6
	Mother	76.8	66.7
	Self	43.4	46.2
Mother	Traditional woman	91.1	85.7
	Mother	82.6	70.4
	Self	23.3	23.1
Homemaker	Traditional woman	82.2	78.6
	Mother	65.8	59.3
	Self	25.8	7.7
Single	Traditional woman	1.9	0
	Mother	3.9	7.4
	Self	43.4	46.2
Single mother	Traditional woman	1.9	7.4
	Mother	6.5	3.7
	Self	7.5	7.7

*For white women, the percentages for "traditional woman" are based on $N = 157$; the percentages for "mother" on $N = 154$; the percentages for "self" on $N = 159$.

**For black women, the percentages for "traditional woman" are based on $N = 28$; the percentages for "mother" on $N = 27$; the percentages for "self" on $N = 26$.

Table 13

Stereotypical Personality Characteristics Ascribed to the Image
of the Traditional Woman, Respondents' Mothers
and Themselves by Race

Characteristic	Person ascribed to	Percent white women*	Percent black women**
Loving	Traditional woman	93.0	78.6
	Mother	84.4	77.8
	Self	86.2	88.5
Nurturant	Traditional woman	83.4	57.1
	Mother	61.7	63.0
	Self	51.6	50.0
Passive	Traditional woman	49.0	53.6
	Mother	25.3	7.4
	Self	8.2	3.8
Submissive	Traditional woman	47.1	60.7
	Mother	27.9	18.5
	Self	5.7	7.7
Supportive	Traditional woman	88.5	82.1
	Mother	70.1	74.1
	Self	76.1	84.6
Sensitive	Traditional woman	79.0	75.0
	Mother	57.8	51.9
	Self	80.5	76.9
Providing	Traditional woman	58.0	53.6
	Mother	60.4	48.1
	Self	39.6	34.6
Domestic	Traditional woman	80.9	85.7
	Mother	61.0	40.7
	Self	28.9	26.9
Controlled	Traditional woman	43.3	32.1
	Mother	36.4	22.2
	Self	39.6	19.2

Table 13 (continued)

Characteristic	Person ascribed to	Percent white women*	Percent black women**
Emotionally expressive	Traditional woman	59.2	66.7
	Mother	46.1	51.9
	Self	69.2	69.2
Conformist	Traditional woman	53.5	57.1
	Mother	23.4	11.1
	Self	4.4	0
Dependent	Traditional woman	60.5	64.3
	Mother	29.9	18.5
	Self	11.9	3.8

*For white women, the percentages for "traditional woman" are based on $N = 157$; the percentages for "mother" on $N = 154$; the percentages for "self" on $N = 159$.

**For black women, the percentages for "traditional woman" are based on $N = 28$; the percentages for "mother" on $N = 27$; the percentages for "self" on $N = 26$.

Table 14

Nonstereotypical Personality Characteristics Ascribed to the Image
of the Traditional Woman, Respondents' Mothers
and Themselves by Race

Characteristic	Person ascribed to	Percent white women*	Percent black women**
Aggressive	Traditional woman	.6	10.7
	Mother	18.8	22.2
	Self	24.5	23.1
Rational	Traditional woman	43.3	32.1
	Mother	46.8	55.6
	Self	69.2	80.8
Ambitious	Traditional woman	15.9	28.6
	Mother	26.0	37.0
	Self	69.8	80.8
Self-reliant	Traditional woman	33.1	17.9
	Mother	51.9	55.6
	Self	83.6	80.8
Competitive	Traditional woman	11.5	21.4
	Mother	21.4	25.9
	Self	56.0	53.8
Decisive	Traditional woman	20.4	25.0
	Mother	44.2	33.3
	Self	47.2	65.9
Achieving	Traditional woman	27.4	32.1
	Mother	36.4	51.9
	Self	81.1	92.3
Independent	Traditional woman	16.6	28.8
	Mother	42.2	66.7
	Self	78.6	84.6
Efficient	Traditional woman	69.4	71.4
	Mother	61.0	63.0
	Self	69.8	69.2

*For white women, the percentages for "traditional woman" are based on $N = 157$; the percentages for "mother" on $N = 154$; the percentages for "self" on $N = 159$.

**For black women, the percentages for "traditional woman" are based on $N = 28$; the percentages for "mother" on $N = 27$; the percentages for "self" on $N = 26$.

white female graduate students differ significantly from their respective image of the traditional woman.

With respect to which occupations they considered to be traditionally female, no significant differences were found between black and white women. Consistently, both groups of women referred to teacher, secretary, waitress, sales clerk, social worker and child care.

When the overall picture is considered, it becomes apparent that there is not much agreement among black or among white women on which characteristics are traditional female characteristics. When only personality characteristics (excluding those relating to work status and marital status) are considered, the only characteristics on which more than 80 percent of the white women agree are domestic, loving, supportive, and nurturant. More than 80 percent of the white women also agreed that assertive, independent, aggressive, ambitious, and competitive are nontraditional features. In other words white women agree on about half of the personality characteristics if 80 percent is used as a cutoff point. Among black women even less agreement can be observed. More than 80 percent of the black women agreed that domestic and supportive are traditional features of the woman. They also agree only on one characteristic--aggressive--as being a nontraditional feature of women. This may suggest that the mainstream ideas about the characteristics of a traditional female do not hold in the black community and that there may not be a standard notion of what a traditional black female is among black women.

When their perceptions of themselves about their traditionality is considered, black women agree on more characteristics than white women. More than 80 percent of the black women agreed that they are independent, self-reliant, rational, loving, ambitious, achieving and supportive while they are not passive, conformist, dependent, submissive or controlled. Eighty percent or more white women agreed that they are self-reliant, achieving, loving and sensitive; but not passive, conformist, dependent or submissive (see Tables 13 and 14).

The least agreement among the female graduate students occurs with respect to their perceptions of their mothers. More than 80 percent of the white women agreed that their mothers were loving and not aggressive. More than 80 percent of the black women agreed that their mothers are not passive, conformist or dependent. Thus, the only strong agreement between perception of self and that of their mothers for white women is the characteristic "loving," which can be considered a stereotypical female characteristic. The black women agree that they and their mothers are similar in terms of not being passive, conformist or dependent.

The overall conclusion is that the mothers of the white women are more in compliance with their normative role than are the mothers of the black women. Based on this difference, white female graduate students, moving in the direction of nontraditionality, differ from their mothers with greater intensity than black women from their mothers. Thus, white women attribute less of the traditional characteristics to

themselves than to their mothers whereas black women do not. Nevertheless, black women assign nontraditional characteristics with greater intensity to themselves than to their mothers.

CHAPTER IV

CONCLUSIONS AND IMPLICATIONS

This exploratory study was designed to determine whether or not black and white female graduate students differ in their academic motivations for career choices and occupational aspirations. Differences were found, but not precisely the differences predicted. My review of the literature led me to hypothesize that pragmatic factors would characterize black women's motives and self-fulfillment factors would characterize white women's motives for pursuing a professional career. The literature places a heavy emphasis on the pragmatic orientation of black women in higher education, either discounting or paying little attention to the self-fulfillment motives that might draw black women to professional careers. The responses of the female graduate students studied here suggest that self-fulfillment is as important a motive for black women to enter graduate school and pursue a professional degree as it is for white women. The difference between black and white women lies in the greater degree to which black women than white women acknowledge pragmatic factors. The differences found in the degree to which black and white women acknowledge being motivated by pragmatic concerns such as high income and occupational demand, may reflect the differential familial and other structural circumstances that historically have distinguished black women from white women. If this is true the differences found here should diminish to the extent that entry into the labor force becomes more of a financial necessity

for white women and professional occupations become more accessible to black women. At the same time, if self-fulfillment is, as this study suggests, an important motivator for black female graduate students, more emphasis should be placed on understanding what self-fulfillment means to black women and on how they gain the desire for self-fulfillment through professional careers. Self-fulfillment in relation to black professional women either by oversight or by misunderstanding has been neglected, and that needs to be rectified in future studies.

To facilitate the study of the relationship between race and motives for pursuing graduate work and professional careers, a series of other questions need to be asked. In other words there may be a greater difference in the motives of black and white female graduate students than this study would suggest because the mediating effects of perceptions of normative roles were not taken into account.

The social origins of the women in this sample, as measured by the occupation and education of the respondents' parents, are not extremely different by race. However it can be observed that, overall, black women come from a background which can be assumed to be associated with a lower family income than that of white women. Nevertheless, it probably is not appropriate to assume that the background of the black women is predominantly lower class. Instead, while the white women seem on average to come from a mainstream middle class, the black women on the basis of parental education and occupation, appear to be from a black middle class. Apart from a lower family income, the black middle class is distinguished from the

mainstream middle class by its social milieu. This social milieu is characterized by a distinct family structure which it has in common with the wider black community.

Through adaptation to historical circumstances such as slavery and discrimination, the black American family developed a different structure than the white American family, a difference which manifests itself mainly in the normative role of black women. It follows that we should find different socialization practices directed at black women and white women.

The norm for black women historically is that of a full time labor force participant. According to Lerner (1972) and Lewis (1975), the fact that a large number of black women traditionally have worked outside the home and their expectation that their daughters would follow this path, led to an emphasis in the socialization of black women on preparation for labor force participation. Presumably this leads to encouraging black women to develop behavioral characteristics such as assertiveness, competitiveness, self-reliance and independence. Furthermore, in anticipation of future employment and to avoid the traditional black female low paying occupations, a strong emphasis is placed on education for black women.

There is a mainstream normative role for women--regardless of race. The normative role for black women is assumed to be parallel to that of mainstream society. The extent to which black women (or even white women) internalize this normative prescription is open to question if the results of this study are valid and representative.

However, it is clear that the mainstream normative prescriptions for women are more applicable generally to white women than to black women.

White women historically have been far more likely than black women to fill the homemaker, wife and mother roles to the exclusion of labor market participation roles (particularly since the turn of the century). Socialization for white women has been aimed primarily at preparation for the responsibilities and duties related to those roles. Only more recently (excluding the generation of the respondents' mothers), the awareness of structural shifts and changing attitudes have changed the exclusive concentration on homemaker roles for white women. The recent structural and attitudinal shifts have led to white women aspiring to part-time careers for supplemental family income and to full-time careers. These historical, structural normative influences on black and white women can help us understand the findings of this research. First, let us examine the motivations for pursuing advanced degrees and professional occupations. Clearly more black women than white women are motivated by the need of the degree to get an occupation that is associated with a high income. This indicates that black women are more likely than white women to regard the degree as a means of accomplishing a goal--a high paying occupation. In other words black womens' career striving is more directly goal oriented than white womens'.

The hypothesis that the prospect of a high income associated with the occupation pursued is a stronger motivator for black women than

white women has been confirmed by this study. Drawing on previous literature (Tangri, 1972; Allen, 1979) one finds that this "pragmatic orientation" might have its origin in black womens' desire to break the mold of low income, low status occupations. If the traditional role of the black woman incorporates being employed outside the home, the prospect of working in general and of working in low paying occupations in particular can be considered "normal." Based on this reasoning it is probable that achievement oriented black women like those in this sample base their motivations on the high income rewards associated with a professional occupation. In a similar vein, more black women than white women consider occupational demand as a decisive factor of motivation. One can reasonably assume that, based on economic considerations, black women are less likely than white women to be able to take advantage of the alternative to labor market participation, full time homemaker, and thus, will be more concerned with employment chances than white women.

In terms of the motivating factors for pursuing the chosen occupation, it is also interesting that black women would be more likely than white women to report that "responsibility and decision making," a motive classified as an indicator of self-fulfillment, was a reason for their career pursuit. This seems to underline rather than diminish the argument that black women are more likely than white women to emphasize status related activities on the professional level. Thus, the item "responsibility and decision making" would have been more properly

categorized as neither "pragmatic" nor "self-fulfillment" motive but as "status related motive."

With respect to the nature of the careers chosen by black and white female graduate students, the hypothesis posed was supported by the finding that black women are not likely to choose nontraditional careers. Although the literature (Tangri, 1972) suggests that the labor force participation of the mother increases womens' likelihood to choose nontraditional careers, this seems to hold true only for white women. According to this study more black women had working mothers than white women, a fact which could be considered a part of the traditional role of black women. It is precisely this fact which I suggest explains the finding that black women are overrepresented in traditional fields of study. It seems that the black women in this sample are not in graduate school because their mothers work, as this latter fact is not necessarily a distinguishing characteristic between them and black women not in graduate school. Instead one gains the impression that by going to graduate school they want to transgress the historical confinement to low paying occupations by obtaining the advanced educational degree necessary to open the path to high level occupations. In other words, they seem to want to increase their opportunities in the labor force rather than, as white women, make the transition from the normative role of homemaker to the labor force. This reasoning is essentially consistent with Allen's (1979) assertions.

Consistent with previous research I also found that black women are overrepresented in traditional fields of study. These black women

might, as Lyson (1983) suggests, regard the traditional female careers as a safer way to accomplish success than the nontraditional careers, where there might be perceivably more risk involved in "getting ahead" and being successful. This perceived risk may be based on the assumption that the structural barriers to nontraditional careers are high for women in general and even higher for black women.

Nevertheless, there is also a strong tendency for black women to choose majors and careers not associated with any one particular gender. This finding lends support to Burlew's (1982) claim that black women are aware of the normative role for women in general and by aspiring to "neutral" careers they are less likely to violate those norms. Again, this pattern seems to stem from black women's desire to achieve success in the labor force by considering the structural barriers to nontraditional career aspirations.

Related to this evaluation of obstacles in women's career path it is interesting to note that more black women perceive to be limited in their advancement because of their gender than do white women. In addition they are highly aware of being limited in their advancement on the basis of race. The combination of these perceptions indicates that black women are different from other female graduate students because they have to cope with more problems (race and sex discrimination) or at minimum, the same problems (sex discrimination) with greater intensity.

Only recently increased educational opportunities have opened for black Americans in general. Black women may be acutely aware of the

historical "banning" of minorities from mainly white institutions of higher education. Specifically, black women might base their perception of being a "trailblazer" on the fact that they are in graduate school rather than being in nontraditional majors, as do white women. Thus, even though the study suggests that most women in graduate school have to deal with various problems associated with their "deviant" status, black women perceive those "hurdles" as being higher and more numerous than white women.

In terms of specific types of discrimination, more black women than white women are concerned about teacher discrimination. This is an interesting finding in so far as black women tend to be more likely to refer to teachers as their role models. One explanation could be that at the lower levels of education, black women were mostly in predominantly black institutions and experienced no discrimination in terms of education. They now are in a predominantly white institution and are likely to encounter more discrimination, both on the basis of sex and race from professors.

Furthermore, as expected, more black women than white women perceive the finding of a mate as a problem, which supports the notion that highly educated black women face more difficulties than their white counterparts in meeting an equally educated mate. This is due to the shortage of black men in general and highly educated black men in particular in a predominantly white institution.

In reference to the female graduate students' role models and significant others encouraging their career striving, the patterns by

race are very similar. The tendency for more black women than white women to conceive of their teachers as role models however does provide partial supports for the hypothesis about differential selection of role models by race. Originally it was assumed that black women come from different backgrounds than white women and it was expected that black mothers would not have a high level of educational and professional experience and therefore would only pose as role models for their daughters based on their work experience. Thus, it was reasoned that teachers would be an alternative role model for black women. Nevertheless, this research suggests that black women's mothers are often highly educated and involved in professional careers and often do serve as role models. The finding that numerous black and white women refer to themselves as their own greatest motivator shows that socialization and family background variables alone are not the only predictors for career striving.

One of the most significant "applied" findings of this study relates to the differential type of funding received by the two groups of women. The fact that most of the black women relying on institutional funding are supported by scholarships is an indication that the affirmative action programs in higher education are effective. Nevertheless, as this predominantly white institution relies on outside sources for the funding of black women by scholarships as opposed to inside sources for white women by teaching assistantship, they are not forced to initiate the recruitment of black women to the various departments. In order to have a representative number of black females in their departments, they can select those with scholarships

and do not have to tap their own resources for financial assistance. This way the proportion of women on teaching assistantships, who are mostly white, remains stable.

Throughout this study I have repeatedly referred to the "normative role" of black and white women with the underlying presumption that the role differs by race. This presumption is partially supported by this research. Although both groups of women seem to be equally aware of the general expectations of society, quite a few differences in perception crystalized. Among the significant differences in terms of the "traditional woman" as perceived by black and white women were "self-reliant," "loving," "nurturant" and "homemaker." Fewer black women than white women assigned the characteristic "homemaker," "loving" and "nurturant" to the traditional female. This is clearly a deviation from mainstream society's stereotypical view of women. Due to the fact that more black women than white women traditionally had to work outside the home and thus, had to combine work and family responsibilities, black womens' lower incidence of assigning these characteristics to their image of the traditional woman can be explained. Black women, as opposed to white women, never were only full time mothers and emotional supporters. Even though there exists the popular stereotype of black women as being the "perfect" mother and nurturer ("aunt Jemima type"), this image may not reflect reality. It seems to have evolved from the historical stereotype of the "mammy," whose main responsibility it was to raise white children.

The fact that fewer black women than white women consider the traditional female as self-reliant, contradicts the literature on the socialization of black women (Lewis, 1975; Lerner, 1972). It is commonly assumed that black women are more self-reliant and self-sufficient than white women, traits which are associated with a socialization aimed at their integration in the labor force and independence.

In terms of self perception regarding "traditionality," the study shows that overall the respondents deviated significantly from their image of the traditional woman. As expected, fewer black women than white women regarded themselves as homemaker. Again this is related to the fact that the normative role of black women does not include full time homemaker. In support of the literature (Lewis, 1975; Lerner, 1972) black women reported perceiving themselves as more assertive and less controlled than white women.

According to the descriptions of the respondents' mothers, it seems as if they also deviate from the mainstream normative role for women. Nevertheless they do so with less intensity than the respondents. Black mothers tend to deviate more from their normative role than do white mothers. In other words, black mothers are more like the black respondents than white mothers and their daughters.

Overall, one gets the impression that both black and white women consider themselves to differ from their own perception of the normative female role. Those who deviate from the standards they perceive to apply to the normative role of the woman, might relate this fact to their "deviant status" of career orientation.

Therefore one can argue that while black and white female graduate students have similar characteristics, black women historically had "nonstereotypical" characteristics while white women only recently acquired them. Thus, in terms of the characteristics required for career orientation, black women have an "advantage" over white women. Black women never were confined to homemaker roles, but to low paying occupations. Thus, their motivations arise from "pragmatic" considerations, such as high income occupations with authority and career advancement. White women consider themselves trailblazers in another way. They are breaking out of the homemaker role into the full time employment role, a step already accomplished by black women. Thus, white women are less concerned with employment chances and are in traditional or nontraditional majors. Black women are trailblazers in terms of aspiring to professions and are aware of structural constraints for women in general. In order to realize the possibility of career advancement (promotions) black women have to avoid nontraditional occupations because they perceive "double" barriers to their aspirations. White women are also aware of structural barriers and thus also usually select traditional occupations in which the barriers are less pronounced. But as white women do not have the additional hurdles associated with racial discrimination to overcome, the structural barriers may not appear as overwhelming as they do for black women and therefore more white women than black women are willing to risk choosing nontraditional careers.

In sum, most of the differences found between black and white female graduate students are related to variations in the conceptualization of the normative female role and associated motivations and aspirations. In order to go beyond the tentative conclusions suggested by this exploratory study further research is needed to identify more adequately what the specific normative role incorporates by race. Further examination should be aimed at defining the various characteristics for black and white women through interviews. In order to establish a clear linkage between motivations and aspirations and the women's perceptions of the degree to which they deviate from that perception of the traditional woman this clarification is necessary.

Subsequently, differences in perceptions between black and white women in graduate school and black and white women not in higher education with respect to their perceptions of normative roles should be studied. The advanced degree and nonadvanced degree women by race should also be compared with respect to their goals and motives for achieving those goals. This would constitute an attempt to determine what sets this highly select group of women apart from those who do not pursue careers require advanced educational degrees.

Apart from in depth interviews, a more representative sample is required in order to draw more valid conclusions about what motivates women in general to aspire to a graduate degree and professional occupation.

An extension of this study, including interviews, should also focus on what black and white women define as being "professional."

Specifically, more research should be done on which professions are considered by black and white women to be associated with high status, income and authority. Knowing this should help us understand women's perceptions of their role models' occupations and how this perception influences their motivations to pursue careers.

Also the subject of future studies should be the identification of factors that potentially discourage black and white females to pursue advanced degrees and professional careers. Thus, comparative analysis based on interviews of women in graduate school with those not pursuing advanced degrees could aim at the respective groups' report on what constitutes discouragement and why some women are prevented from entering graduate school while others are not.

In sum, the area of this study--the motivational background of black and white female graduate students--lends itself to extensive further study. Additional empirical work is necessary to expand the theoretical foundations suggested by this and previous studies. The knowledge gained from the suggested research could be a tool in future policy making in terms of increasing the number of women in general and black women in particular in higher education as well as professional careers.

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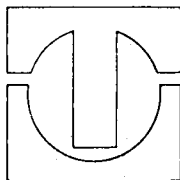
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APPENDIXES

APPENDIX A

COVER LETTER AND QUESTIONNAIRE



THE UNIVERSITY OF TENNESSEE, KNOXVILLE
DEPARTMENT OF SOCIOLOGY

1115 Volunteer Boulevard / Knoxville, Tennessee 37996-0490

To: Women in Graduate Programs at the University of Tennessee

From: Marina Adler
Department of Sociology
University of Tennessee

The enclosed questionnaire is part of my social research on the experiences of women in higher education. You are one of the women who have been selected at random to represent the female graduate students at the University of Tennessee.

I hope that you can spare a half hour of your time to complete the enclosed questionnaire. If there are any questions which you prefer not to answer, you are free to ignore them. Any information you choose to give will be treated confidentially.

Thank you for your time and cooperation. If you have any questions about this research, please contact me. My telephone number at the University is 974-6021 or 974-2122.

Please return the completed questionnaire to the Sociology Department via campus mail at your earliest convenience; hopefully, that will be by February 6, 1984.

Sincerely,

Marina Adler
Graduate Teaching Assistant
Department of Sociology

P.S. Due to technical difficulties, this questionnaire's appearance is not as professional as I would have liked. I hope, nevertheless, that you will find it understandable and not offensive. Thank you again for your cooperation.

THIS RESEARCH IS APPROVED BY THE HUMAN SUBJECTS COMMITTEE OF THE
SOCIOLOGY DEPARTMENT

QUESTIONNAIRE

Please answer the following questions to the best of your knowledge. You do not have to answer any questions you do not want to answer. Any information you give is strictly confidential.

1. Place of birth: (Country; City) _____
2. Age: _____
3. Race: (check one)
☐ White
☐ Black
☐ Asian American
☐ Hispanic
☐ Other (specify) _____
4. What is your current field of study/major? _____
- 4a. What is your area of concentration within your field of study? _____

Please check appropriate answers:

5. Marital Status: (check one)
☐ Single (never married)
☐ Married (living with husband)
☐ Married (separated)
☐ Divorced
☐ Widowed
6. If you have EVER been married, when did you first marry? (check one)
☐ Before college
☐ During college
☐ After college, but not while attending Graduate School
☐ During Graduate School
7. Do you have any children? (check one)
☐ Yes
☐ No
- 7a. If "YES", give sex and age of children:
Girls: Age Age Age Age
Boys: Age Age Age Age
8. If you have NEVER been married, WHEN do you plan to get married? (check one)
☐ Never
☐ While still in school
☐ After Graduate School
☐ While employed in a career
- 8a. I will continue graduate work if I marry while in Graduate School. (check one)
☐ Yes
☐ No

8b. I will continue my career if I marry once I am working. (check one)

☐ Yes
☐ No

9. When did you decide on your present major? (check one)

☐ Before high school
☐ During high school
☐ During college
☐ After college, but before graduate school
☐ During graduate school

10. In what year did you finish or do you plan to finish?

High school _____

BS/BA _____ major _____

MA/MS _____ major _____

Ph.D. _____ major _____

Other (specify) _____

11. When did you start graduate school? _____
(month/year)

12. How do you finance your graduate training? (Check the MOST IMPORTANT one)

☐ Scholarship/Fellowship
☐ Teaching/Research Assistantship
☐ Grant
☐ Parents
☐ Husband
☐ Own source of income
☐ Other (specify) _____

13. Have you ever dropped out of graduate school for financial reasons?

☐ Yes
☐ No

13a. Have you ever left graduate school for reasons that were not primarily financial?

☐ Yes
☐ No

13b. If "YES", specify reason: _____

14. Have you received any academic/educational awards (special honors, honor society, scholarships, recognition of achievement, etc.)?

☐ Yes
☐ No

15. How would you evaluate your performance relative to your fellow students in high school, college, and graduate school? (circle one in each line)

	poor	average	good	outstanding
High school	1	2	3	4
College	1	2	3	4
Graduate school	1	2	3	4

16. Which occupation are you currently pursuing? _____

16a. Did you ever consider pursuing another occupation?

☐ Yes
☐ No

16b. If "YES", which? _____

16c. Why did you change your mind about pursuing these occupations? (check one)

☐ I lost interest
☐ Educational reasons
☐ Financial reasons
☐ Other (specify) _____

17. If you were absolutely free to go into any occupation you wanted, what would your choice be?

18. Highest level of education obtained by your parents and husband (if applicable).
 (circle one for each person)

	Father	Mother	Husband	Role Model (if not parent)
Some high school	1	1	1	1
High school graduate	2	2	2	2
Some college or vocational school	3	3	3	3
College graduate	4	4	4	4
Some graduate school	5	5	5	5
Graduate or professional degree	6	6	6	6

19. While growing up, what was your father's principal occupation?

19a. While growing up, what was your mother's principal occupation?

19b. While growing up, what was your role model's principal occupation? (if not your mother or father)

19c. Your husband's occupation is: _____

20. While you were growing up, did your mother work MOST of the time?

☐ Yes
☐ No

20a. If your mother worked outside the home, what were her reasons for working?
 (check one)

☐ Financial necessity
☐ Enjoyment
☐ Financial reasons AND enjoyment
☐ Other (specify) _____

21. While you were growing up, were both your parents present?

☐ Yes
☐ No

21a. If NO:

- ☐ Divorced
☐ Mother not present
☐ Father not present
☐ Mother deceased
☐ Father deceased
☐ Mother remarried
☐ Father remarried

22. Whom do you consider to be your "role model"? (circle one)

- Father 1
 Mother 2
 Other relative 3 (specify) _____
 Teacher 4
 Friend 5
 Other 6 (specify) _____

23. Who encouraged you most to pursue your career? (circle one)

- Father 1
 Mother 2
 Other relative 3
 Teacher 4
 Friend 5
 "Role model" 6
 Other 7 (specify) _____

24. Reasons/motives for getting a graduate/professional degree:
(circle the appropriate number for each line)

	Major reason	Minor reason	Not a reason
I need the degree to pursue the career I am most interested in	1	2	3
I need the degree to pursue an occupation that pays well	1	2	3
I want to broaden my knowledge in general, with no specific career in mind	1	2	3
I want to learn more about my field of study because I am interested in it, not because I want to make a career of it	1	2	3
Getting a degree is an accomplishment in itself	1	2	3
Good stipend	1	2	3
Good grades in major/academic success	1	2	3
It is easier than finding a job	1	2	3
Major reason, not mentioned above (specify)			

25. Reasons/motives for aspiring to the occupation you want to hold after finishing school. (circle one for each line)

	Major reason	Minor reason	Not a reason
There is a great demand for this type of work	1	2	3
It is a challenge for a woman	1	2	3
It promises high income	1	2	3
It has a lot of responsibility and decision making	1	2	3
It gives me a lot of freedom--I will be my own boss	1	2	3
The kind of work it involves is interesting	1	2	3
It has high status	1	2	3

Major reason, not mentioned above (specify)

26. Have you ever had to work at any time to finance your education?

☐ Yes
☐ No

27. Once you get your degree, you expect: (check one)

☐ Not to work
☐ To work part time
☐ To work full time
☐ To work only if necessary

28. Do you think that any of the following have been or will be a problem for your education and career plans? (circle the appropriate number for each line)

	Major problem	Minor problem	Not a problem
Finding a husband	1	2	3
Maintaining my femininity	1	2	3
Having to deal with old friends' and families' attitudes towards my career plans	1	2	3
Advancing as far as I would like to because I am female	1	2	3
Advancing as far as I would like to because of my race	1	2	3
Career advancement due to employer discrimination	1	2	3
Academic advancement problems due to teacher/advisor discrimination	1	2	3
Combining family and school/career	1	2	3

Major problem, not mentioned above (specify)

29. If you have experienced any employer/academic discrimination practices, indicate what kind by circling YES or NO for each alternative.

	Sex		Race	
	Discrimination Yes	No	Discrimination Yes	No
Employer hiring prejudices	1	2	3	4
Admission policy of graduate department/professional school	1	2	3	4
Different pay for the same work with same training and experience	1	2	3	4
Different treatment by academic advisors and professors	1	2	3	4
Different treatment by career counselors	1	2	3	4
Other (specify) _____				

30. A lot of people talk about something called a "traditional woman." Using the list below, please select the characteristics that come closest to YOUR IDEA of what a traditional woman is like. (please check as many as seem appropriate)

- | | |
|--|-----------------------|
| 1. _____ Single | |
| 2. _____ Wife | |
| 3. _____ Mother | |
| 4. _____ Single mother | |
| 5. _____ Homemaker | |
| 6. _____ Part time in the labor market (financial reasons) | |
| 7. _____ Part time in the labor market (enjoys working) | |
| 8. _____ Full time in the labor market (financial reasons) | |
| 9. _____ Full time in the labor market (enjoys working) | |
| 10. _____ Emotionally expressive | 21. _____ Submissive |
| 11. _____ Passive | 22. _____ Supportive |
| 12. _____ Conformist | 23. _____ Nurturant |
| 13. _____ Dependent | 24. _____ Sensitive |
| 14. _____ Domestic | 25. _____ Ambitious |
| 15. _____ Assertive | 26. _____ Competitive |
| 16. _____ Independent | 27. _____ Decisive |
| 17. _____ Aggressive | 28. _____ Providing |
| 18. _____ Self-reliant | 29. _____ Controlled |
| 19. _____ Rational | 30. _____ Efficient |
| 20. _____ Loving | 31. _____ Achieving |

- 30a. From the same list (above), select the corresponding numbers for the characteristics that you think best describe YOURSELF.
- _____

- 30b. From the same list (above), select the corresponding numbers for the characteristics that best describe your mother or female role model.
- _____

31. If you think of the "traditional woman" as working in the labor force, what kinds of occupations come quickly to mind when you think of "typical female occupations"?
- _____

A sample of the women receiving this questionnaire will be asked to participate in an interview. If you are interested in being interviewed, please sign your name below:

Signature

APPENDIX B

TABLES

Question 3. Race ($N = 189$)

<u>White</u>	<u>Black</u>	<u>Hispanic</u> (eliminated from analysis)
160 (84.6%)	28 (14.8%)	1 (.5%)

Question 4. Traditionality of majors by race in percent

<u>Major</u>	<u>White women</u> ($N = 160$)	<u>Black women</u> ($N = 28$)	<u>Z > 1.645</u>
Nontraditional	23.1	7.1	2.72
Neutral	18.8	39.3	-2.10
Traditional	58.1	53.6	

Question 6. Date of first marriage by race in percent

<u>Date</u>	<u>White women</u> ($N = 157$)	<u>Black women</u> ($N = 28$)
Never married	41.4	39.3
Before college	4.5	10.7
During college	17.8	14.3
After college, before graduate school	28.7	25
During graduate school	5.7	10.7
After graduate school	1.3	0
Other	.6	0

Question 7. Do you have children?

<u>Yes/No</u>	<u>White women</u> ($N = 160$)	<u>Black women</u> ($N = 28$)
Yes	30	42.9
No	70	57.1

Question 8. Date of planned marriage by race in percent

<u>Date</u>	<u>White women</u> ($N = 159$)	<u>Black women</u> ($N = 27$)
N/A	60.4	59.3
Never	1.9	3.7
While in school	4.4	3.7
After school	11.3	14.8
When employed	14.5	14.8
No definite plans	7.6	3.7

Question 8a. Continue graduate work if I marry while in school

<u>Yes/No</u>	<u>White women</u> (<u>N</u> = 158)	<u>Black women</u> (<u>N</u> = 26)
Yes	42.4	34.6
No	0	0
N/A	57.6	65.4

Question 8b. Continue career if marry when working

<u>Yes/No</u>	<u>White women</u> (<u>N</u> = 160)	<u>Black women</u> (<u>N</u> = 25)
Yes	46.9	36
No	0	0
N/A	53.1	64

Question 9. Time decided on major by race in percent

<u>Time</u>	<u>White women</u> (<u>N</u> = 158)	<u>Black women</u> (<u>N</u> = 27)
Before high school	1.3	0
During high school	10.8	18.5
During college	36.7	25.9
During graduate school	10.8	14.8
Other	1.2	3.7

Question 11. Time entered graduate school by race in percent

<u>Year</u>	<u>White women</u> (<u>N</u> = 159)	<u>Black women</u> (<u>N</u> = 28)
1959-1970	4.3	3.6
1971-1975	2.5	10.8
1976-1980	27.6	28.5
1981-1983	65.4	57.2

Question 12. Most important source of financing

<u>Source</u>	<u>White women</u> (<u>N = 159</u>)	<u>Black women</u> (<u>N = 28</u>)	<u>Z > 1.645</u>
Scholarship	5.7	42.9	-3.93
Teaching assistantship	40.9	10.7	4.30
Grant	2.5	0	
Parents	5	0	
Husband	7.5	10.7	
Own source	27	21.4	
Loan	6.9	10.7	
Educational assistance from employer	3.8	3.6	

Question 13. Reason for dropping out of school

<u>Reason</u>	<u>White women</u> (<u>N = 157</u>)	<u>Black women</u> (<u>N = 27</u>)
Financial	7.5	14.3
Family	9.2	3.7
Health	1.3	3.7
Employment	3.2	7.4
Other	5	0
N/A	73.8	70.9

Question 14. Academic awards received by race

<u>Award received</u>	<u>Percent</u> <u>White women</u> (<u>N = 156</u>)	<u>Percent</u> <u>Black women</u> (<u>N = 28</u>)
Yes	80.1	71.4
No	19.9	28.6

Question 15. Evaluation of academic performance by race

<u>Level</u>	<u>Evaluation</u>	<u>Percent</u> <u>White women</u> (<u>N = 156</u>)	<u>Percent</u> <u>Black women</u> (<u>N = 28</u>)	<u>Z > 1.645</u>
High school	poor	0.6	0.0	
	average	12.5	3.6	
	good	33.8	39.3	
	outstanding	53.1	57.1	

<u>Level</u>	<u>Evaluation</u>	Percent White women (<u>N = 156</u>)	Percent Black women (<u>N = 28</u>)	<u>Z > 1.645</u>
College	poor	0	0	1.71
	average	20.6	25	
	good	47.5	57.1	
	outstanding	31.9	17.9	
Graduate school	poor	0	0	
	average	12.1	10.7	
	good	53.2	64.3	
	outstanding	34.6	25	

Question 16. Occupation currently pursued by race

<u>Category</u>	Percent White women (<u>N = 149</u>)	Percent Black women (<u>N = 24</u>)
Professional and administrative	96.6	100
Technical and administrative support	2	0
Forestry	1.3	0

Question 16. Traditionality of the occupation pursued by race

<u>Category</u>	Percent White women (<u>N = 160</u>)	Percent Black women (<u>N = 28</u>)
Professional/nontraditional	58.1	57.1
Nonprofessional/neutral	4.4	14.3
Professional/traditional (teacher, nurse, librarian)	37.5	28.6

Question 16b. Alternative occupation pursued by race

<u>Category</u>	Percent White women (<u>N = 157</u>)	Percent Black women (<u>N = 26</u>)
Professional and administrative	67.5	73.1
Technical and administrative support	5.1	0
Forestry	0.6	0
N/A	26.8	26.9

Question 16c. Reason for not pursuing the alternative occupation

<u>Reason</u>	Percent White women (<u>N = 158</u>)	Percent Black women (<u>N = 25</u>)	<u>Z > 1.645</u>
N/A	46.8	36.0	
Lost interest	27.8	24.0	
Educational	9.9	32	2.29
Financial	10.8	8	
Other	5.7	0	

Question 17. Ideal occupation by race

<u>Category</u>	Percent White women (<u>N = 145</u>)	Percent Black women (<u>N = 23</u>)
Professional and administrative	93.1	95.7
Technical and administrative support	2.1	4.3
Service	0.7	0
Forestry	2.8	0
Don't know	1.4	0

Question 20. Did your mother work most of the time?

<u>Work status of mother</u>	Percent White women (<u>N = 158</u>)	Percent Black women (<u>N = 28</u>)	<u>Z > 1.645</u>
Worker	34.8	57.1	
Homemaker	65.2	42.9	-2.21

Question 20a. Reason for mother's working by race

<u>Reason</u>	Percent White women (<u>N = 157</u>)	Percent Black women (<u>N = 27</u>)
N/A	42.0	18.5
Financial	21.7	37
Enjoyment	6.4	0
Financial AND enjoyment	29.9	44.4

Question 22. Role model by race

<u>Person</u>	<u>Percent</u> <u>White women</u> <u>(N = 153)</u>	<u>Percent</u> <u>Black women</u> <u>(N = 27)</u>	<u>Z > 1.645</u>
Mother	36	33.3	
Father	19.6	11.1	
Parents	7.2	7.4	
Teacher	8.5	22	-1.65
Peers	10.5	3.7	
Female relative	4.7	18.5	-1.80
Male relative	2.7	3.8	
"Myself"	0.7	0	
Not sure	10.1	0	

Question 23. Person most encouraging career aspirations by race

<u>Person</u>	<u>Percent</u> <u>White women</u> <u>(N = 155)</u>	<u>Percent</u> <u>Black women</u> <u>(N = 28)</u>
Mother	25.2	32.1
Father	14.8	14.3
Parents	9	0
Teacher	9.7	14.3
Peers	14.1	10.7
Male relative	9.6	3.6
Female relative	0.6	3.6
Role model	1.3	3.6
"Myself"	11.6	7.1
All	2.8	7.1
Other	1.3	3.6

Question 24. Motives for getting a degree by race

<u>Motive</u>	<u>Percent</u> <u>White women</u> <u>(N = 155)</u>	<u>Percent</u> <u>Black women</u> <u>(N = 25)</u>	<u>Z > 1.645</u>
To pursue career	91.9	85.2	
High income occupation	64.6	81.4	-1.93
Edification	54.2	50	
Interest	55.1	53.8	
Degree is an accomplishment in itself	82.3	92.6	
Good stipend	22.2	29.2	
Good grades	60.9	68	
Easier than finding a job	18.7	12	

Question 25. Motives for pursuing the chosen occupation by race

<u>Motive</u>	<u>Percent</u> <u>White women</u> <u>(N = 156)</u>	<u>Percent</u> <u>Black women</u> <u>(N = 26)</u>	<u>Z > 1.645</u>
Occupational demand	52.5	73.1	-2.15
It is a challenge	55.8	66.6	
Promises high income	45.3	74.1	-3.04
Responsibility and decision making	80.9	96.4	-3.21
Freedom	69.9	66.6	
Interesting work	94.9	96.3	
High status	60.2	53.8	

Question 28. Problems for career plans by race

<u>Problem</u>	<u>Percent</u> <u>White women</u> <u>(N = 159)</u>	<u>Percent</u> <u>Black women</u> <u>(N = 27)</u>	<u>Z > 1.645</u>
Finding a husband	8.8	25.9	-1.96
Losing femininity	10.1	3.7	
Advancement because of sex	58.8	67.8	
Advancement because of race	0.8	82.1	
Employer discrimination	47.1	71.4	-2.54
Teacher discrimination	14.6	37	-2.30
Combining family and career	69.2	55.5	
Attitudes of family and friends	32.9	33.3	

Question 29. Discrimination encountered by race

<u>Discrimination</u>	<u>Percent</u> <u>white women</u> <u>(N = 155)</u>	<u>Percent</u> <u>black women</u> <u>(N = 23)</u>	<u>Sex</u>	<u>Race</u>
Employer	21.3	20		28
Departmental	1.9	4.2		4.2
Pay differential	30.3	26.1		21.7
Professor	34.4	37.5		37.5
Counselors	12.3	13.0		13

APPENDIX C

EQUATION FOR Z VALUE

The equation for the Z test for the differences between proportions is as follows:

$$Z = \frac{(p_{s1} - p_{s2})}{\sigma p_{s1} - p_{s2}}$$

$$\sigma p_1 - p_2 = \sqrt{\frac{p_{u1}q_{u1}}{N_1} + \frac{p_{u2}q_{u2}}{N_2}}$$

Source: Blalock, 1972:228-230.

VITA

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