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and the Perceived Need for Mentoring Among Women Students
at the University of Cincinnati

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An Exploration of Social Support, Discrimination, and the Perceived Need for Mentoring
among Women Students at the University of Cincinnati

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Abstract: This study focuses on women student's reported levels of campus social support and discrimination and how these variables relate to student's support for a mentoring program on campus. Findings indicate that lower levels of social support and higher levels of discrimination lead to greater support for a mentoring program. Given that overall levels of social support were low, the implication of this research is that a campus mentoring program would benefit many women students.

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Chapter 1

Theory

The benefits of education generally and higher education in particular are many. Indeed, a college education is often touted as a fast track to a bright future with a high-paying job. This version of the American dream is especially salient for women and racial minorities who see a college degree as their opportunity to ‘get a piece of the pie’ that has traditionally been denied them. However, it is important to remember that, while education has the potential to be liberating, “the education field [is] located within the field of power, made up of those in power [and] more precisely, it can be located in the subspace of cultural production” (Callewart, 1999). The university (excluding historically Black colleges and universities and women’s colleges) is a microcosm of our larger society where the power is held by an exclusive group of people. Thus it is their culture that is reproduced through the education system; this is often called the “hidden curriculum.” In this context, the very presence of female students, and students of other races, religions, nationalities, etc. may be perceived as a threat to existing power relations.

However, institutions of education are rarely “conceptualized as places of power or contestation in which differential resources and capacities determine the maneuverability of competing racial groups and the possibility and pace of change” (McCarthy, 1995). To this I would add that struggles for power exist between and *within* racial groups, as well as other marginalized groups, because points of power and oppression intersect where race, class, and gender intersect. This is important because

not only do characteristics like race, class, and gender shape experience and self-knowledge, they shape other people's perceptions, and they shape life chances.

Because higher education is a place of hegemonic cultural reproduction, previous research in education has focused on the identification of "the origin of power; that is, the actors who are in control and in whose benefit the existing arrangements work [and] their belonging categorically to class, race, and/or gender" (Popkewitz, 1999). Since the actors for whom the existing arrangements work fit into certain categories, white, middle class, students who fall outside these parameters become marginalized in several ways.

This happens in part through the hidden curriculum, or more precisely, curricular exclusion of academic work by white women and other minority men and women (Pagano, 1999). The hidden curriculum is also reproduced through discrimination, overt or covert, conscious or unconscious. For example, Roxana Ng argues that racism and sexism operate as relations of domination and subordination in the educational setting. Often this happens through what she calls "commonsense racism and sexism", which refers "to those unintentional and unconscious acts that result in the silencing, exclusion, subordination, and exploitation of minority group members" (Ng, 1995).

These points illustrate that a students' gender, race, class, nationality, sexuality, etc., as well as the intersections of these categories, shapes her educational experience in important ways. Indeed, it is "through education that we find... those with whom we can speak [and] those who speak representatively for us..." (Cavell, 1979, p. 35). Recent research has proliferated on the separate effects of race, gender, and class, yet few studies examine the effects of the intersections of these categories. For students at the

“intersections” we can pose two questions, “with whom can they speak?” and “who speaks for them?”

Here I examine the race, class, and gendered construction of higher education and the impact that this construction has on women students. To accomplish this I will utilize the theoretical lenses of Marxist feminism, critical educational theory, and Black feminist thought. This combination of theories provides a framework within which to explore the relationship between ideology (Marxist feminism), higher education (critical theory) and the intersections of race, class, and gender (Black feminist thought).

Marxist Feminism The basic tenets of Marxist theory focus on the forces of production and the monopolization of those forces by the bourgeoisie. There is also another important component of Marx’s theory- ideology. Similarly, ideology and its construction and maintenance are monopolized by the bourgeoisie (i.e. “The ideas of the ruling class are the ruling ideas” quoted from Marx’s *The German Ideology*). Marx calls this space of ideological domination the ‘superstructure’. Raymond Williams interprets Marx’s conceptualization of the superstructure in this way, “To Marx the superstructure acquires a main sense of unitary ‘area’ within which all cultural and ideological activities could be placed” (p.32). Given the nature of both the material and ideological relations, Rosemarie Tong concludes, “under capitalist power relations every kind of transactional relation is exploitive” (1989).

To focus the discussion on education it will be useful to examine Louis Althusser’s concept of the “Ideological State Apparatus”. For Althusser it is not enough to distinguish between State power and State apparatus, “but also another reality which is clearly on the side of the (repressive) State apparatus, but must not be confused with

it...[this is]: *the ideological State apparatuses*" (p. 142). For Althusser "ISA's function massively and predominately by ideology...the ideology by which theory functions is always unified *beneath the ruling ideology*, which is the ruling ideology of the ruling class (p.146)." The examples given of ideological State apparatuses (ISA's) include religious, family, legal, political, cultural, and educational institutions. Given that ISA's are governed by the ruling class ideology, it is this ideology that forms that basis of our educational system, including higher education.

For some theorists the educational arena is the dominant purveyor of the ruling class ideology, made more powerful because it works in conjunction with other dominant institutions like work and family. Raymond Williams, for example, posits that

"The processes of education; the processes of a much wider social training within institutions like the family, the practical definitions and organization of work; the selective tradition at an intellectual and theoretical level: all these forces are involved in a continual making and remaking of an effective dominant culture..."

Furthermore, the dominant culture that is produced is one that is inhospitable to women. Because the dominant culture is defined by the ruling class those who fall outside of a particular set of characteristics are excluded, at best, or at worst antagonized. To paraphrase MacKinnon, the ruling class creates the world from their point of view, which then becomes the truth to be disseminated (1981).

Why accept this clearly exploitive ideology? The lure of the dominant ideology is "the absolute guarantee that everything really is so, and that on the condition that the subjects recognize what they are and behave accordingly, everything will be all right" (Althusser, p 181). This is how our system of higher education operates: in a hierarchical manner with the ruling class, exploiting the many, the working and lower classes, the non-white, the women, the "Others." Exploiting them by touting a false truth, for the

truth of the few at the top is not the truth, yet the masses below must accept it as such in order to succeed in the educational system. This why it is imperative to think critically and analyze the ideological systems in place in our society, particularly the institution of education and higher education.

Critical Theory Critical theory focuses on power relations and structural constraints. Indeed, one of the best known Critical theorists, Pierre Bourdieu, argues that any social arena, or “field”, including the academic field, “is a locus of power relationships” (Bourdieu, 1990, as cited by Staf Callewart, 1999). With regards to education, Popkewitz uses critical theory to “refer to a broad band of arguments about power- how the marginalization of people is constructed through the practices of the school [and] the various forms in which power operates...” (Popkewitz, 1999). This marginalization that occurs in an educational setting happens frequently to women and minorities, with the effect multiplied for students residing at the intersections.

Unfortunately, the intersectional effects of race, class, and gender have only recently begun to be studied by educational theorists. As Morrow and Torres point out, historically race, class, and gender have been studied independently and “ the interplay among race, class, and gender and its contributions to social reproduction has emerged only recently as an integrated research endeavor...” (Morrow and Torres, 1995). Recently Critical theorists have begun to make important inroads into understanding the marginalization of minority and white women students at the intersections, and of the institutional powers at play that keep them there.

Currently, critical education theorists take students who have been traditionally relegated to the margins and bring them back to center. Stephen Haymes, for instance,

reminds critical theorists not only to “pay close attention to how racial difference is organized in popular culture” but also to “analyze the mediating role played by race in the social construction of gender, sex, and class identities” (Haymes, 1995). This is especially important for an analysis of higher education where the degree to which a student feels she is marginalized figures prominently in the outcomes of her experience at the university.

Black Feminist Thought Because all Black women live their lives at the crossroads of racism and sexism, it is not surprising that it was Black feminists who first called attention to the importance of intersectionality. Black feminist thought has expanded its lens to consider sites of intersectional oppression beyond race, class, and gender. For example, Patricia Hill Collins argues that “the significance of seeing race, class, and gender as interlocking systems of oppression is that such an approach fosters a paradigmatic shift of thinking inclusively about other oppressions, such as age, sexual orientation, religion and ethnicity” (Collins, 1990). The concept of “interlocking systems of oppression” or intersectionality, is one of the most important contributions of feminist theory to the discourse on social inequality. This makes it an appropriate framework through which to look women’s experiences in higher education.

In fact, Black feminist theorists have long recognized that life at the intersections has serious consequences in terms of education. Much Black feminist criticism of the educational system lies in the process of knowledge construction, specifically Black women’s absence from it (as well as other minorities and white women). Patricia Hill Collins recognizes that “all social thought reflects the interests and standpoint of its creators” (Collins 1992). And Audre Lorde raises the question, “ What does it mean

when the tools of a racist patriarchy are used to examine the fruits of that same patriarchy?" This is her answer: "It means that only the most narrow perimeters of change are possible and allowable" (Lorde, 1979). For these powerful reasons, many Black feminist thinkers call for educational reform to include both curriculum reform and the inclusion of minorities, women, and minority women in the processes of knowledge construction and production. It is also important to recruit higher numbers of women and minorities to provide role models and mentors for young women.

Race, Class, and Gender in Higher Education Almost everyone would agree that the college years are some of the most formative years of their lives, and depending on who you ask, also the best years. At present, it is not women and minorities touting college as the best years of their lives. The "chilly climate" for women in higher education has been documented by several researchers (Sadker and Sadker, 1994; Seymour, 1995). Indeed Sadker and Sadker found that higher education for women gets "colder by degrees," meaning that as women ascend through academia they tend to feel increasingly alienated. Other researchers are quick to point out that gender subordination and racial subordination (as well as other oppressions) go hand in hand (Collins, 1992; McCarthy, 1995; Montmarquet and Hardy, 2000). For example, McCarthy states that "racial factors are complicated by dynamics of gender...and dynamics of class" (McCarthy, 1995). If the climate is "chilly" for women in general, it is downright cold for women at the intersections of gender, race, class, and/or a host of other marginalized positions, like sexual orientation or age, that any one woman can occupy.

What happens in the university setting that causes this chill for women and minority students? First, it is important to remember that "school knowledge is socially

produced, deeply imbued by human interests, and deeply implicated in unequal social relations...” (McCarthy, 1995). Because the knowledge of the university is produced by those in power, the knowledge disseminated by the university privileges their positions. As a society, “most of what we know about ourselves and others comes from the books of white, middle class men” (Pagano, 1999). For Pagano, a critical education would take into account the experiences and perspectives of other races, classes, and ethnicities.

One way in which the biased construction of knowledge manifests itself in higher education is through curricular content. Often theorists and researchers refer to the “hidden curriculum” in higher education, meaning the covert ways (conscious or unconscious) that a sexist, racist, classist agenda informs what is taught and discussed inside of the classroom. As Callewart illustrates, “Schooling means institutionalized teaching of an official curriculum by authorized officers with the result that an examination degree is conferred” (1999). This ensures the elite of the university that through means of curriculum approval, no inappropriate knowledge will be constructed or disseminated.

This presents a specific set of issues for white and minority women who occupy positions of some power in higher education. This is especially true if these women wish to influence knowledge construction and dissemination within the university. As a Black woman in Academe, Patricia Hill Collins explains the marginality that is a consequence of Black women’s “outsider within” status in the university (1990). Collins also posits the suppression of Black Feminist Thought by a “white-male-controlled knowledge-validation process” (1992). This means that without a serious administrative commitment to change, the knowledge that is so critical to the understanding of one’s self

(or others) as a member of one or several marginalized groups will continue to be denied to students.

What is sought in order to end this cycle of curricular exclusion and silencing of marginalized peoples in higher education is liberation by way of knowledge construction (Torres, 1999). Both critical theorists and Black feminist thinkers support curriculum reform as a way to involve minority and white women in the knowledge construction and dissemination processes. Peter McLaren, a critical theorist, offers a model of curriculum reform that contains five main components. These are: 1) legitimization of multiple forms of knowledge, 2) interrogation of discursive presuppositions that inform curricula concerning race, gender, class, and sexual orientation, 3) displacement of the inherent superiority of whiteness, 4) recognition that groups are differently situated in the production of knowledge, and 5) the affirmation of voices that have been oppressed (McLaren, 1995). With the support and enforcement of this model by university personnel, higher education can become a place of inclusion and participation, instead of a place of marginalization and silencing.

To conclude, let's visit the idea of the university as an institution that is characteristically two-sided; as a site of domination and as a site of (potential) liberation (Cohen, 1995). Historically, the university has operated as a site of domination. In the past this took the form of outright exclusion and discrimination, in the present these practices are carried out by the hidden curriculum, curricular exclusion, and silencing of non-dominant viewpoints. This structure affects all women negatively, with deeper effects on women who live within systems of interlocking oppressions, or at the intersections of race, gender, class, or sexuality. By analyzing higher education through

the lenses of Black feminist thought, Marxist feminism, and critical theory, we can begin to restructure the university as a site of liberation.

To make education liberatory we must first learn to value all types of knowledge. The hegemonic description of what is knowledge must be razed. Hegemony has no place in liberatory education. This hegemonic definition includes the notion that knowledge must be inaccessible to be worthy of study. A liberatory educational practice would disagree. Knowledge must disseminate from the academy to the masses or it is useless. If a theory or idea cannot be used by 'the people' what, indeed, is its worth?

If all of our work and research remains sequestered in the ivory tower of academe, how will that then change the world? Knowledge must accomplish more than proving that one can accurately work within the parameters allowed by the ruling class. Jumping through hoops in a show for the bourgeoisie proves only that one can be trained well, not that one can think well. Education must be more than assuming the correct posture to please those relegated to supreme positions in the educational hierarchy.

There has been a great push recently to diversify the student bodies of colleges around the country, yet it is these 'diverse' students who are hardest to retain. Students who fall outside of the ruling class *need* liberatory education. These students *need* role models and mentors. They see and feel the hypocrisy lying behind the thin veil of education in our colleges. If the world is going to change, the change must start with education.

Chapter 2

Review of the Literature

Introduction By the time women reach college they have spent at least twelve years in the institution of education, an institution whose purpose is reproduce and reinforce cultural norms as part of the educational process. To illustrate, Jo Anne Pagano asserts “It is clear that we believe that one of the purposes of education is to produce civilized members of civil society. What is at issue is what we mean by civilization. At issue is the kind of human beings we want our young people to become” (1999). Societal messages make it clear that part of what we mean by civilization is enacted through gender roles, and institutions of education largely reflect and reproduce this cultural preference for what we consider appropriately gendered behavior.

For instance, Sadker and Sadker have documented the ways in which boys and girls are treated differently from elementary school through higher education. They find that boys are rewarded for stereotypically masculine behavior, like assertiveness, while girls are punished for exhibiting the same behaviors (Sadker and Sadker 1994). This contributes to what some researchers call the “self-silencing” of girls that occurs as they come of age in high school. At around the tenth grade, many girls fall into a pattern when “facing the pressure of the feelings and thoughts they’ve suppressed to be ‘nice’, girls... [to] question the legitimacy of their ideas and express self-doubt, confusion, and ambivalence.” (Dean 1995). When girls are rewarded for meek and passive behavior they are set up to fail in a competitive system that demands assertion and action in order to succeed.

This situation becomes particularly vexing when these self-silencing tenth-graders grow up and begin college. In addition to facing the new responsibilities and challenges that students of both genders face when coming to college, female students must also face specific issues like exclusion of women from curriculum, lack of role models/mentors, sexual harassment, and rape (Sadker and Sadker, 1994; Seymour, 1995; Schneider, 1987; Simeone, 1987; Jacobs, 1996; Gmelch, 1998; Reisberg, 2000). Women from minority groups face these issues in addition to racism, homophobia, ageism, and/or other prejudices (Moses, 1989; Nieves-Squires, 1991; Hurtado, 1996; Gmelch, 1998).

Also, female students must carry the burden of a socialization process that taught them to put others before themselves, to value other's opinions more than their own, and not to speak up about the things that affect them (Sadker and Sadker, 1994; Woo, 1997; Gmelch, 1998). This combination of women's self-silencing, self-doubting socialization and the reality of individual and institutional sexism is harmful. This combination creates a college campus environment that is "chilly" or sometimes even hostile towards women (Resnick-Sandler et al, 1996).

For these reasons, it is important to study the woman's undergraduate experience. Here I review the literature on the female undergraduate experience, paying attention not only to gender, but also to race, sexuality, and age, all of which shape the college experience for women. Central to this discussion are the benefits that mentoring programs offer to women and minority students. Here I review literature discussing the college experience for women and how mentoring can help.

Gender in Higher Education The number of women in college now meets or exceeds the enrollment of men; in fact, by the mid-nineties women made up more than half of all

undergraduates (Pearson, Shavlik, Touchton, 1989; Gmelch, 1998). But does equality in numbers translate to equality in experience? Unfortunately, it is well documented that the experience of women in college is less positive than that of men. Some problems that women face in college include lack of encouragement by professors, channeling into female dominated majors, sexual harassment, lack of female role models, and curricular exclusion (Sadker and Sadker, 1994; Seymour, 1995; Schneider, 1987; Simeone, 1987; Jacobs, 1996; Reisberg, 2000). Women are not all equally affected by these problems. Many female students must also face issues like racism, homophobia, ageism and/or other forms of discrimination in addition to sexism.

Often the environment that women face in college is indifferent at best and, at worst, downright hostile. In Failing at Fairness, Sadker and Sadker label higher education “colder by degrees”. Women are belittled, degraded, and ignored in the classroom, underrepresented or misrepresented in curriculum and textbooks, and are often highly vulnerable to sexual harassment as well as physical and sexual assaults on and off campus (Sadker and Sadker, 1994; Seymour, 1995; Martin and Hummer, 1989; Gmelch 1998).

The college campus is clearly still a man’s world. The majority of full-time tenured faculty in any discipline is almost always male. Women (faculty and students) are extremely rare in the fields of science, mathematics, and engineering (Jacobs, 1996, Widnall, 1998). This makes a huge difference for women students. Lacking role models and mentors, in any major, denies women opportunities and access to informal networks that may help them achieve.

The sexism that women face on campus may not always be overt, or even deliberate, but it is always there. Often issues of race/ethnicity, age, and/or sexual orientation further complicate these problems. These are serious issues that must be addressed in order to transform the campus climate from one of exclusion and isolation to one that is challenging yet supportive.

Race and Ethnicity The problems faced by women in college are compounded for women of racial or ethnic minorities. All racial minority students face stereotypes that hinder the educational process: African Americans and Hispanics are often viewed as lazy, loud, intellectually slow, and sexually aggressive; Asian and Indian women are assumed to be smart, particularly in science and mathematics, soft spoken and submissive; Native Americans are also believed by many to be lazy, superstitious, and non-intellectual (Ferron, 1989; Moses, 1989; Nieves-Squires, 1991; Espiritu, 1997; Woo, 1997). Often, students of color “are likely to feel conspicuous and perhaps isolated”, which in addition to the effects of stereotypes, can make them more vulnerable to sexual harassment (Gmelch 1998).

When professors, counselors and students act on these prominent stereotypes, minority women’s education suffers. For example, many Asian women are channeled by counselors into positions and occupations, such as the health sciences and technical research positions, that “place minimal emphasis on assertive, verbal behavior” (Yamuchi and Tin-Mala, 1989; Espiritu 1997). Unfortunately, these fields are typically “female ghettos” which are underpaid and under-respected. For black women, stereotyping often means that they are ignored and unencouraged by their professors, as if these professors

think that they would just be wasting time (Moses, 1989). Hispanic and Native American women face similar detriment due to stereotypes and cultural ignorance (Melendez and Petrovich, 1989, Ferron 1989, Hurtado 1996).

Stereotypes of minority women make them more likely to be sexually harassed. Many racial stereotypes are sexual/sexist in nature: the libidinous Black female, the hot Latin lover, and the submissive Asian woman. In fact, Black feminist scholars argue that “racial and sexual subordination are mutually reinforcing” (Crenshaw 1993). And some researchers have found that the students most frequently targeted for sexual harassment are women of racial/ethnic minority groups (Gmelch, 1998). This is an example of the kind of challenges faced by women at the “intersection” of race and gender. According to Sharon Bohn Gmelch, “Most experts agree that two underlying reasons for the persistence of racial stereotyping and antagonism are people’s lack of accurate information about other groups and their lack of opportunity to work together...” (1998).

The university is an institution dedicated to the dissemination of information. If institutions are concerned about the quality of education that their minority students receive, they must somehow disseminate information that will help debunk racial stereotypes. Also, diversifying the faculty and student body will make opportunities for inter-racial problem solving and friendship more realistic. Most importantly, a diverse faculty and student body make it more likely that a student may find a person with whom they can form a mentoring relationship.

Non-traditional Non-traditional women or reentry women also face a specific set of issues. Non-traditional women students must juggle many responsibilities, often while

facing both subtle and overt pressure to leave the university (Gmelch, 1998). This pressure may come from the student's family, but a non-supportive environment on campus will contribute to this pressure as well (Shorr, 1998). In a 1985 study Ekstrom and Marvel describe the educational barriers for non-traditional women students as *institutional*, the formal parts of the college process that begins with admissions credentials and run to financial aid limitations, course regulations and lack of woman-centered counseling; *situational* factors such as race, ethnicity, class, family responsibilities, time conflicts, etc., and *psychological* factors, which stem in part women's lesser status in society generally. More recent research supports this assertion (Gmelch, 1998; Kolodny, 1998; Shorr, 1998).

Many re-entry students have families at home who must adjust to their mother's or partner's new role as a student (O'Barr, 1989; Mendelson, 1989). For some families, this is a difficult adjustment to make and may put additional pressure on the student. Particularly for women who have been raised with traditional values, there may be internal conflict over whether a good wife can put her needs before her husband's. Or, she may wonder if taking her own classes might mean that she will not be able to help her children with their own school related issues (O'Barr, 1989). Sometimes partners are resistant and refuse to help with childcare or housework so that the reentry student can study or attend class (Merrill, 1999). In such situations a supportive campus environment is crucial to the success of these students.

Often reentry women are single mothers. This leaves little flexibility in terms of childcare and child rearing, issues which are not always conducive to the learning environment (Kolodny, 1998; Shorr, 1998). Professors are often not understanding when

the sitter cancels at the last minute or a child is sick. Gmelch argues that for single women "... their burden is magnified... they must fulfill their children's needs, pay the extra cost of education themselves, and manage their job and household alone" (1998). But, she adds, it is childcare that is the biggest concern of single, reentry mothers.

To ease the burden of these students many universities have answered with increased institutional flexibility, providing campus sponsored childcare centers, after hours office services, support groups, orientation, tutoring, and mentoring, all geared with the needs of non-traditional women students. Researchers point out that if there is one thing non-traditional students need most, it is institutional flexibility (Gmelch, 1998; Kolodny, 1998; Shorr, 1998). By taking steps to create a more supportive campus for non-traditional students, the benefits of a more flexible institution can enhance the experience of all students. Mentoring is also beneficial to these students, who may be returning to college after an extended absence or may have never been to college, as they navigate through the university system.

Sexuality Lesbianism and bi-sexuality also comes with their own set of baggage. These students often have a weak support system if there is one at all. A lesbian, bisexual, or transgender student may experience low self esteem or even self hatred because they have been raised to believe that people like them are sick, dirty, and abnormal (Sullivan, 1998). Many queer students fear being ostracized by family and friends if they "come out." Colleges and universities rarely address homophobia and heterosexism and even more rarely make serious attempts to alleviate these problems.

The most salient problem facing gay, lesbian, bisexual, and transgender students is harassment and assault. Students hear homophobic jokes in the classroom and are

harassed on campus; many fear for their physical safety (Renn, 1998). In a 1994 survey of gay, lesbian, and bisexual college students, forty percent “indicated that they do not feel completely safe on their campuses, with 57 percent saying that their schools do nothing in response to [gay, lesbian, bisexual] hate crimes occurring on their campuses” (Watkins, 1998). There are even cases where straight students have been verbally harassed and physically assaulted for speaking out in support of gay rights (Gmelch, 1998).

Queer students are seldom reflected in curricula, class discussions, or other campus activities. Sometimes they even face outright exclusion, as when one third of physicians in a county medical association admitted that they would not accept a qualified but openly gay applicant into medical school (Tinmouth and Hamwi, 1994). To this Gmelch adds that most universities promulgate a heterosexual agenda and that faculty often avoid including LGBT material out of ignorance or fear of dealing with an emotionally charged topic (1998). Curricular exclusion may seem to go unnoticed, but to LGBT students represents the glaring indifference with which they are treated by faculty and administrators.

There are many challenges to being a queer student, particularly if the campus environment is not supportive. For example, even going to the campus health clinic becomes an ordeal when a lesbian is asked repeatedly if she is sexually active (McNaron, 1989). Also, these issues add to myriad of problems already faced by racial/ethnic minority students and other disadvantaged students if they also happen to be lesbian, bisexual, or transgender. Imperative to mitigating these negative aspects of college life would be a mentor the LGBT student; homosexuality is so often demonized and

condemned that it becomes crucial for these students to see successful people like themselves in positions of (relative) power.

Male dominated majors The type of academic major that a woman chooses may, sometimes to a large extent, determine what her college experience will be like. There is a dearth of women faculty and students in traditionally male fields like Science, Mathematics, and Engineering. This affects the women in those fields in many ways.

One problem that female students have in these majors is a lack of female professors in these fields; female students may not feel comfortable with a male mentor or may find male mentors unwilling or unable to address their needs. Gmelch also points out that female professors are more likely to use teaching practices and pedagogies that reflect women's learning styles and experiences (1998). According to the O'Gorman and Sandler, "women often feel isolated and excluded from informal interaction with their professors and colleagues [and]... to the extent that women are excluded from these 'invisible colleges,' they are likely to fall behind" (pg. 7).

Another problem faced by women in Science, Engineering, and Mathematics is being in an environment where female students are treated as "a woman first and a student second" (Widnall, 1988). This denies women access to the important social networks that help one survive and succeed in such a competitive field (O'Gorman and Sandler, 1988, Widnall, 1988, Sonnert and Holton, 1996). Indeed, because there are so few women in these fields, men in these fields "may be unused to or uncomfortable about dealing with women" (O'Gorman and Sandler, pg.7). If women are to succeed in these fields, these issues must be addressed.

These problems, in conjunction with the problems that women face generally in college, often force intelligent, capable women out the fields of Science, Math, and Engineering. Possible remedies to the problems of these students include diversifying faculty in male dominated fields, deliberately including the accomplishments of women and minorities in curricula and class materials, and the establishment of support groups or mentoring programs. With these steps, the university can make women in math, science, and engineering feel less marginalized.

Mentoring Although the problems that each woman faces in her college career are varied and unique, evidence suggests that mentoring programs alleviate much of the stress associated with women's collective and individual college experiences (Moss, Debres, Cravey, and Hyndmanet, 1999; Jacobi, 1991; Waldeck, Orrego, Plax, Kearney, 1997; O'Gorman and Sandler, 1988; Rowe, 1989; Tocarczyk and Sowinski, 1997; Snearl, 1997; Terell and Hassell, 1994). For women in general and for almost any subgroup of women within (i.e. race, class, sexuality, age), strong support networks and mentoring are heavily emphasized as being integral to overcoming an isolating, indifferent, and sometimes hostile environment.

The benefits of mentoring have been recognized for many years. For example, in 1983 O'Gorman and Sandler reported that "involvement with a mentor increased productivity and commitment, especially of students and junior faculty." This report additionally states that mentoring increases the likelihood that students and faculty who do leave will feel that they have been given the skills to succeed elsewhere; this make them more likely to be ambassadors to the institution by contributing to recruitment and fund raising. In a later study (1991) Jacobi found that students who participated in a

mentoring program were “more satisfied with the university environment and showed greater developmental gains than the control group.”

The benefits of mentoring discussed above apply to students regardless of race, gender, or other ascribed characteristics. Clearly, mentors are important for students regardless of sex. However, mentoring may be essential for women because mentors buffer the effects of discrimination and help women anticipate and overcome barriers (Otto, 1994). Another study found that female students who could identify a female faculty role model (44%) had significantly higher degree expectations than female students who could not identify a role model (Speizer, 1981).

Given the importance of mentoring for women students, an alarming number of women have difficulty establishing mentoring relationships and have mentors less often than men (Jacobi, 1991). Part of this difficulty may arise from male domination in the classroom. Many studies indicate that male students dominate class interactions regardless of the gender of the professor (Sadker and Sadker 1994, Speizer 1981). Speizer also finds that when the professor is male, and the majority of the students are male, female students initiate interaction less and end interactions sooner. These limited classroom interactions put women students at a disadvantage when establishing a mentoring relationship with a professor.

In 1983 O’Gorman and Sandler stated that mentoring prevents attrition of “...students and faculty – especially women, minorities, and persons from other special population groups”. Yet, in 1991 Jacobi reports that mentoring for women and minority undergraduates is rare. In addition to the difficulties that all women face in establishing a mentor relationship, women of color face additional challenges. Students of color have

less access to informal networks. In addition they may find the institutional environment and its underlying values to be alienating and/or confusing, they may be the victims of racism and sexism. They are also more likely to have attended poor schools, and are more likely to be first generation college students (Jacobi, 1991). For African-American women in higher education, Gwendolyn Sneed suggests “taking every opportunity to network” and “to develop a cadre of supporters both inside and outside their departments” (1997).

Students belonging to other special population groups, like those defined by sexual orientation or socioeconomic background, also benefit from mentoring. Beth Kraig (1998) states that “it is hard for me to imagine the institution that has no need for openly LGBT mentors.” Tocarczyk and Sowinski posit that all forms of mentoring “are equally valuable to students from poor or working class backgrounds” (1997).

O’Gorman and Sandler (1983) tout the benefits of mentoring for all women and further emphasize the need for mentoring among minority women, women in non-traditional fields, older women, and disabled women. Given the difficulties that all women face, all women can benefit positively from being mentored.

Clearly, mentoring is a valuable resource for women students from all backgrounds. The potential for mentoring to improve women’s college experience is great. According to a 1998 white paper published by Inter-University Council of Ohio, “retention is linked to involvement on campus, encouraging student contact with faculty, and creating opportunities for students to build strong relationships with each other.” A successful mentoring program can help fulfill each of these needs.

Conclusion To conclude, it is clear that the college experience of undergraduate women is fraught with problematic issues and that these issues are intensified by additional burdens of race, sexual orientation, age, motherhood, type of academic major, or a combination of these. It is important to remember that the university and the classroom can “potentially [be] one powerful and safe space where dialogues among individuals of unequal power relations can occur” (Collins 2000). For a university to ensure a high quality education for all of its students, regardless of race, class, religion, gender, age, or sexual orientation, it must encourage and take part in this dialog; the administration must respond to the needs of its students.

This responsiveness begins with acknowledging that the “relationship between a dominant and a subordinate class always has a pedagogical or educational dimension of variable importance” (Morrow and Torres 1995). From here, the university must take steps to level the playing field so that higher education can move beyond the reproduction of unequal power relations between and among students of various races, ethnicities, sexual orientations, ages, etc. Through a commitment to diversifying the administration, faculty, and student body and the establishment of effective academic and social programming and mentoring a university can begin to change the campus climate for women, from ‘chilly’ to welcoming.

Research questions and Rationales

The following seven research questions are an attempt to test how critical theory, and the theories of Marxist feminism and black feminist thought reflect the actual experience of women college students at the University of Cincinnati. The basic tenets of these theories posit the university as an institution that was created by and for white, middle

class men. In addition, women students, non-white students, poor or working class students, or students who do not otherwise fit the traditional mold are still disadvantaged by a university system that is unaware of and/or inattentive to their needs.

These research questions will attempt to uncover whether some of the disadvantages experienced by students who do not fit the traditional college mold include lower levels of social support and/or higher reported levels of discrimination. Further, do lower levels of social support and higher levels of discrimination lead to greater support for a mentoring program? These issues are fleshed out in the questions below.

1. Will female students in general report that a mentoring program will be beneficial to women on campus? Rationale: Given the diverse nature of female students and their backgrounds, the literature suggests that most women will experience negative treatment based on gender at some point in her college career or know someone who has. Negative treatment can encompass many things: lack of encouragement from professors, sexual harassment by professors or students, sexual assault by professors or students, and/or general feelings of isolation and alienation, what has been called a “chilly” campus climate. These factors support the hypothesis that women will recognize the need for a mentoring program on campus.
2. Will women in male dominated majors or colleges perceive a stronger need for a mentoring program? Rationale: For women in male dominated fields, the campus climate goes from “chilly” to downright cold. In fields such as Science, Mathematics, and Engineering the very nature of the subject matter itself is considered inherently “masculine”. In these fields women face more overt discrimination and, because of

the dearth of women faculty and students, have weak support networks, if any, to turn to. This will make the need for female mentors more salient to these students.

3. Will women who are also members of racial or ethnic minority groups recognize a powerful need for mentors? Rationale: Non-white students of nearly every ethnic background face daily struggles against stereotypes, prejudice, and discrimination based on their race/ethnicity and their gender. Additionally, support networks for these women shrivel when one experiences sexism within her racial/ethnic group and/or racism from women of other ethnicities.
4. Will women who are lesbian, bisexual, or transgender perceive a need for mentors? Rationale: Women who are sexual minorities often experience hostile conditions on college campuses. Whether or not these students are “out” they are affected by heterosexist and homophobic jokes and remarks made by peers and professors. There are few, if any openly queer faculty or administrators on most campuses. Some universities don’t have formal guidelines to protect queer students from discrimination, harassment, and violence. Often queer students have been ostracized by family and friends because of their sexuality or, if still closeted, face severe sanctions and ostracism if ever they should “come out”. A mentor can provide a buffer against the hardships a lesbian, bisexual, or transgender student may be facing.
5. Will women who are reentering the university or entering at a non-traditional age recognize the potential benefits of a mentoring program? The experience of women reentering the academy is inherently different than that of traditional students. Reentry women often have families to tend to as well as school; families that may even be resistant to her reentry into higher education. This puts additional pressure

on these women that most “traditional” students do not face. A strong support network can provide a valuable resource for these women; for childcare referrals, coping strategies, and general social support. A mentoring program would provide this network.

6. Will students who have strong support networks not perceive a need for a mentoring program? Rationale: The purpose of a mentoring program is to provide a place for students to receive support and guidance through their academic journey. Students who feel that they already have a support network will not see the benefits that a mentoring program may provide for them.
7. Will controlling for background variables lessen the effect of discrimination and social support? Rationale: Certain background variables, like race or class, may explain a student’s perceived need for a mentoring program. These background variables may operate through social support and discrimination. For example, students of color are more likely to lack social support and to feel discriminated against thus these students are likely to perceive a need for a mentoring program.

Chapter 3

Methods

To produce accurate and valid statistics concerning undergraduate women's levels of social support and perceived need for a mentoring program, a questionnaire was designed to tap into these phenomena. That women's college experience contains specific challenges is well documented. Lack of role models, sexism, and poor social support networks on campus are well-established as some of women's major challenges as college students (Sadker and Sadker, 1994; Seymour, 1995; Schneider, 1987; Simeone, 1987; Jacobs, 1996; Gmelch, 1998; Reisberg, 2000). To determine if these challenges exist for women at UC, I administered a survey designed with UC students in mind. Because UC is a large commuter campus that draws students from diverse backgrounds, it may be difficult for students to form strong social support networks. Hence, the questionnaire is meant to measure the strength of the student's support networks on campus and off campus, perceived discrimination, and support for a mentoring program.

Sample Participants were drawn from the main campus of the University of Cincinnati. All undergraduate women from any major in any college of the university were included in the sampling frame. The sample was drawn systematically. The office of the registrar selected every tenth female undergraduate student whose student identification number ended in three. Using this method one thousand students were selected for participation. Of the one thousand surveys that were mailed to the chosen participants, two hundred and twelve were returned completed. Roughly 5% of surveys

were returned due to the wrong address and about 3% were thrown out because of incomplete data.

The Taft Undergraduate Enrichment Award funded this phase of the research as a needs assessment survey for mentoring at the campus Women's Center. After the initial printing, postage, and mailing there was not enough money left over for a follow up mailing. As an incentive, a coupon for the campus bookstore was included with the survey. This coupon offered 20% off store merchandise, excluding textbooks. Had textbooks been included the incentive to complete the survey may have been greater. Also, envelopes with return postage were included.

As stated above, this research began as a needs assessment for mentoring at the campus Women's Center. To this end I researched current campus mentoring programs as well as women's experience in college generally. Based on this preliminary research, I designed the items on the questionnaire to measure several aspects of women's college experience. These are social support, discrimination, and support for a mentoring program. The original questionnaire was pre-tested by a group 10 of students in the Women's Center. Several drafts of the questionnaire were evaluated and commented on by these students, as well as the director of the Women's Center Dr. Chris Bobel, and my undergraduate advisor in the Sociology department, Dr. Marcia Bellas. Because the survey was anonymous, it was exempted from human subjects review.

Demographics While there is some variation in the sample characteristics, the respondents to the questionnaire do not accurately reflect the diversity of women at UC. For example, over 88% percent of the respondents are white. Of the 26 non-white respondents 18 were African American, 2 Hispanic, 4 Asian, and 2 claimed "other." By

contrast, students of color actually represent close to 30% of full time undergraduates: 21% African American, 5% Asian, and 2% Hispanic. Because the non-white race categories were so small I was forced to collapse the race categories into white and non-white. With a better response rate the true diversity of UC women would probably be represented, particularly if a follow up could have been arranged.

According to UC enrollment statistics, the average age of undergraduates is 23. The age range in the distribution in the sample was as to be expected for a university like UC: 74% were between the ages of 18 and 25 years of age, 17% between 26 and 30, and 34% over 30 years old. That the second largest age category was over 30 speaks to growing numbers of “re-entry women” that have been enrolling in colleges. The percentage of students with children was 17.5%.

The sample was largely heterosexual. However only 3.3% reported being bisexual or lesbian. Most estimates, Kinsey for example, guess that roughly 10% of the population is non-heterosexual. More recent studies find basically the same as Kinsey (Athanasίου, Rubinstein, and Shaver, 1972, cited in Laumann et al, 1994). One reason for the number of non-heterosexual subjects could be the lackluster response rate. Another possibility is fear of somehow being identified on the part of closeted lesbian and bisexual women, although it was made clear that the survey was anonymous.

It is also worth pointing out that many studies find that more people will report homosexual desire than report being homosexual. For instance, Laumann, Gagnon, Michaels and Michaels in their book The Social Organization of Sexuality that 8.6% of the women surveyed reported any adult same gender sexuality. Of this 8.6%, 59% reported same gender desire, 13% reported same gender behavior, and only 1% reported

a homosexual identity. (Laumann, Gagnon, Michaels, and Michaels, 1994). This phenomenon may be especially salient for college age women, who are still beginning to explore their sexuality. Hence, some of these students may be questioning their desire or sexuality but don't feel comfortable identifying as bisexual or lesbian.

Close to 40% of the women responding to the survey worked 20 or more hours a week. This fits the characteristic of a commuter school, where students are often juggling school and work. 93% of the respondents classified their socio-economic background as middle class; 11.8% chose lower middle class, 50.5% chose middle class, and 30.7% chose upper middle class.

Only 8.5% of subjects lived on campus, reinforcing the commuter status of the University. Of the students living off-campus 35% percent lived with parents, 25.9% lived with roommates, and 15% lived alone. 21.7% reported living with a spouse or partner, this measure is also used as a proxy for marital/partner status.

[Insert tables 1 and 2 here]

Characteristics of the Measures The questions were initially designed to measure four constructs: social support, procedural support, perceived discrimination, and perceived need for a mentoring program. A series of factor analysis and reliability tests revealed that the two social support constructs should be combined. This evolution will be explained in detail following a general discussion of the measures.

The questionnaire contained 4 items designed to measure social support:

I have a strong support network on campus;

If I have a personal problem I always have a friend to talk to,

I feel that, generally speaking, people on campus are friendly and helpful;

Table 1: Sample Characteristics

Variable	Percent	Mean	Standard Deviation
Race			
White	88.6	.11	.32
Non-White	11.4		
Age, years			
<17	1.4		
18-25	74.4	2.39	.77
26-30	8.1		
>30	16.1		
Sexual orientation			
Heterosexual	96.7	.03	.18
Lesbian/Bisexual	3.3		
Hours of employment			
0-10	28.8		
10-20	31.7	2.28	1.07
20-30	21.6		
>30	17.8		
Major			
Female dominated	38.6		
Neutral	49.1	1.26	.67
Male dominated	12.3		
Extracurricular activities			
Yes	38.3	.62	1.32
No	61.7		
Grade point average			
2.0-2.99	16.0	.84	.37
3.0-4.0	84.0		

Table 2: Sample Characteristics Continued

Variable	Percent	Mean	Standard Deviation
Socioeconomic background			
Lower class	2.4		
Lower middle class	12.0		
Middle class	51.7	3.19	.77
Upper middle class	31.6		
Upper class	2.3		
Resides on campus			
No	91.4	.91	.28
Yes	8.6		
Living situation			
Alone	15.4		
Roommates	26.4	2.65	.99
Parents	36.1		
Spouse/Partner	22.1		
Children			
No	82.5	.82	.38
Yes	17.5		
Year in School			
First	18.4		
Second	23.8		
Third	24.3	2.88	1.33
Fourth	18.0		
Fifth or more	15.5		

I sometimes wish I had a person on campus for advice.

The response set for these questions is a Likert type scale ranging from 1= strongly agree to 5 = strongly disagree.

There were 5 items concerning procedural support:

If I have a problem concerning classes, professors, or university procedures, I know where to go for help;

If I have a problem or question about academics, I have an academic advisor that I can turn to;

If I were to experience discrimination, I know the appropriate procedures for filing formal complaints and grievances on campus;

If I wanted to improve the campus environment, my actions could make a difference

The size and complexity of the university seem overwhelming at times. These questions also use the Likert response scale.

Three items were designed to tap into students' perceived discrimination:

I have experienced prejudice and/or discrimination on campus because I am female;

I have experienced prejudice and/or discrimination on campus because of my race/ethnicity;

I have experienced prejudice and/or discrimination on campus for another reason.

These questions also use the Likert type scale ranging from 1= strongly agree to 5 = strongly disagree. However, the 'another reason' variable also had a place to check any

additional ways that the respondent felt discriminated against including social class, age, disability, and sexual orientation. These measures form the discrimination scale.

Ten variables were intended to measure the subject's support for a mentoring program:

I believe that a mentoring program would be beneficial to women on campus;

It would be nice to have a mentor to listen when I need to get something off my chest;

I would talk to a mentor if I needed an objective opinion about a situation in my life;

It would be helpful to have a mentor to give advice about UC procedures;

It would be best to have older students mentoring younger students;

I believe a mentor should be a member of UC faculty or staff;

I would talk to a mentor about academic/career concerns;

I would talk to a mentor about my personal life;

Having a mentor would enhance my experience at the University of Cincinnati;

I do not believe that I would use a mentoring program but I think it is a valuable resource for other students.

These questions all followed the Likert scale response format with 1 being 'strongly disagree' and 5 being 'strongly agree.' Factor analysis and reliability tests eliminated some of these variables from the final mentoring scale.

The next step was an initial factor analysis pattern matrix containing all variables except for demographics. This first factor analysis actually revealed five separate factors. In four of the factors the variables clustered around a particular concept: mentoring, procedural support, social support, and discrimination. The last factor had no real link between the variables in the cluster. Two variables that measured something like campus climate: “if I wanted to improve the campus environment, my actions could make a difference” and “the size and complexity of the university seem overwhelming at times”. The other two were double barreled and/or unclear so it’s hard to say what they really measured. These measures are: “it would be best to have older students mentor younger students” and “I do not believe that I would use a mentoring program but I think it is a valuable resource for other students”. The variables in this last factor were dropped and another factor analysis was performed.

For the second pattern matrix, the four strong factors remained from above, mentoring, procedural support, social support, and discrimination. However, it was clear that 3 measures which I had intended to measure support, did not load on the support factor. These variables were eliminated. This analysis also showed that the social support factor accounted for little variance and was moderately correlated with the procedural support factor. For the next analysis, the two support factors were combined.

(Insert table 3 here)

The third pattern matrix with the support factors combined was moderately strong. The variables clearly fit together well and the factor loadings were moderate to high (.45 and up). This analysis determined 3 measures (social support, discrimination, and mentoring) and is the basis for the scale formation, described in detail below.

Table 3: Pattern Matrix From Initial Factor Analysis

Variable	Factor				
	1	2	3	4	5
Can turn to academic advisor		.689			
Mentoring is beneficial	.767				
Need mentor for career concerns	.674				
Know procedure for formal complaints					
Experienced racial discrimination			.567		
Experienced gender discrimination			.580		
Experienced homophobia					
A mentor would enhance UC experience	.770				
People on campus are friendly					-.341
Know where to go for help		.668			
Can make a difference on campus	.333				-.354
Need mentor for objective opinion	.786				
Experienced other discrimination			.733		
Mentor should be an older student	.323				.491
Need mentor to discuss personal life	.661				
Campus size can be overwhelming					.374
Mentor should be a staff member				-.361	
I have a strong support network		.473		.355	
I always have someone to talk to				.651	
Need to get things 'off my chest'	.849				
Need advice about UC procedures	.697				
Would not use mentor but good for others	-.348			.365	
Wish I had a person on campus for advice	.353			-.302	

Extraction Method: Principal Axis Factoring
 Rotation Method: Oblimin with Kaiser Normalization

T

The individual social support measures and their factor loadings are: I have a strong support network on campus (.748); If I have a problem I have a friend to turn to (.450); If I have a problem concerning classes, professors or university procedures I know where to go for help (.648); If I have a question or problem about academics, I have an academic advisor that I can turn to for advice (.651); I feel that, generally speaking, people on campus (faculty, staff) are friendly and helpful (.495). The scale reliability is .73 (standardized alpha) and the average inter-item correlation is .32.

Table 4 illustrates the growth and transformation of the social support scale throughout the series of factor analyses. Here the five item scale is clearly superior with a reliability of .72. The three item scale merits a .73 reliability, however the additional items make the five item scale more appropriate having a broader range of content.

(Insert table 4 and 5 here)

The next scale is a general discrimination scale. This scale was designed to measure the extent to which the respondent feels that she has been discriminated against on campus. The measures and factor loadings for this scale are as follows: I have experienced prejudice and/or discrimination on campus because I am female (.524), I have experienced prejudice and/or discrimination on campus because of my race (.526), I have experienced prejudice and/or discrimination on campus for some other reason (.490). The scale reliability is .65 and the average inter-item correlation is .38.

(Insert table 6 here)

The last scale involves mentoring. This scale measures support for and potential use of a mentoring program. The measures and factor loadings here are: I believe that a mentoring program would be beneficial to women on campus (.702); It would be nice to

Table 4: Evolution of the Support Scale

Variable	Number of Items			
	Six	Five	Four	Three
Strong support network	.70	.74	.69	.59
Can turn to academic advisor	.58	.65	.66	.71
Know where to go for help	.65	.65	.71	.76
You have a friend to talk to	.46	.45	.37	-
People on campus are helpful	.52	.50	-	-
Wish I had a person on campus for advice	.46	-	-	-
Reliability (standardized alpha)	.70	.72	.69	.73

Table 5: Support Scale

Variable	Factor Loading	Average Inter-Item Correlation	Reliability
Strong support network	.748		
Have a friend to talk to	.450		
Know where to go for help	.648	.32	.72
Can turn to academic advisor	.651		
People on campus are helpful	.495		

Table 6: Discrimination Scale

Variable	Factor Loading	Average Inter-Item Correlation	Reliability
Basis of race	.524		
Basis of gender	.526	.38	.65
Some other reason	.490		

have a mentor when I need to get something off my chest (.863); I would talk to a mentor if I needed an objective opinion about a situation in my life (.814); It would be helpful to have a mentor to give advice about UC procedures (.712); I would talk to a mentor about academic/career concerns (.712); I would talk to a mentor about my personal life (.682); Having a mentor would enhance my experience at the University of Cincinnati (.811); I wish I had a person on campus to turn to for advice (.423). The reliability of the scale is .90 (standardized alpha). The average inter-item correlation is .56.

(Insert table 7 here)

Control Variables Because background variables like race or class affect nearly every aspect of our lives, I included questions in the survey that may reveal a link between certain background variables and the perceived need for a campus mentoring program. I also included items about the participants' academic backgrounds that may tell us something about students' level of support for mentoring. These background variables include: racial/ethnic background, class background, marital status, sexual orientation, parental status, hours of employment per week, year in school, and grade point average.

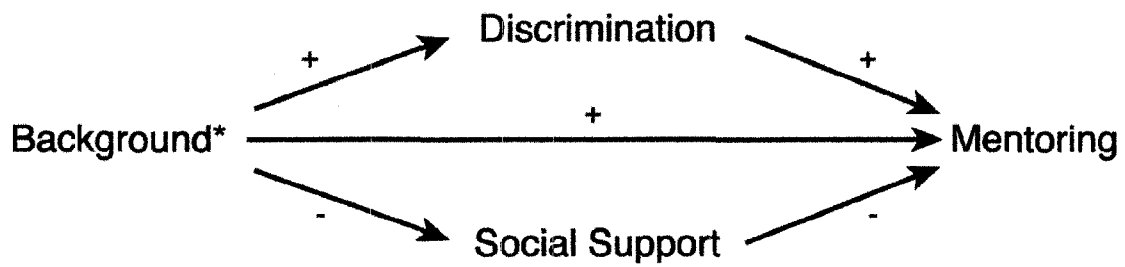
Analysis Plan The analysis includes inspection of frequencies, correlations, and multivariate analyses employing OLS regression. The variables being examined are social support, discrimination, and support for a mentoring program. A regression analysis will be performed using the above dependent variables regressed with other independent variables such as; race, age, sex, year in school, and major. For a diagram of the conceptual model, please refer to table 8.

(Insert table 8 here)

Table 7: Mentoring Scale

Variable	Factor Loading	Average Inter-Item Correlation	Reliability
Mentoring is beneficial	.702		
Would be nice to have a mentor	.863		
If I needed an objective opinion	.814		
To give advice about UC procedures	.712	.56	.90
To talk about career concerns	.692		
To talk about personal issues	.682		
Would enhance my experience at UC	.811		
Wish I had person on campus for advice	.423		

Table 8: Conceptual Model



* Background variables considered in the model are: race, class, sexual orientation, age, hours of employment, major, parental status, whether or not the student lives on campus, and the student's living situation (with roommates, partner/spouse or family)

Because the sample size small, all analyses will use a significance level of .05 ($p > .05$). The analysis focuses on OLS analysis of continuous endogenous variables. There will be special attention given to nested models where each successive model adds variables that will potentially expand the analysis.

The reader may remember that the research questions for this study are:

Will female students in general report that a mentoring program will be beneficial to women on campus?

Will women in male dominated majors or colleges perceive a stronger need for a mentoring program?

Will women who are also members of racial or ethnic minority groups recognize a powerful need for mentors?

Will women who are lesbian, bisexual, or transgender perceive a need for mentors?

Will women who are reentering the university recognize the potential benefits of a mentoring program?

Will students who have strong support networks not perceive a need for a mentoring program?

Will controlling for background variables lessen the effect of discrimination and social support?

Chapter 4 Findings

As indicated, the sample represents a cross-section of women students at UC. For example, the sample is mostly white, traditional age, middle class students. However, almost 12% of respondents are women of color, roughly 24% are older than 25, nearly 20% are raising children, and almost half work more than 20 hours per week. Here we'll examine univariate statistics, as well as bivariate and multivariate analyses that illustrate how these factors relate to social support, discrimination, and mentoring.

Univariate Statistics Do women at UC find the campus environment generally supportive? For many students, the answer is no. On questions designed to tap into the interpersonal aspects of campus social support, results were somewhat mixed. For instance, only 20.3% of respondents agreed to the statement "I feel that I have a strong support network on campus", with 34.9% of students responding neutrally (mean 2.64, standard deviation 1.11). However, 67.5% do agree to the statement "if I have a personal problem, I always have a friend to talk to", with 13.7% responding neutrally (mean 3.45, standard deviation 1.32). Perhaps indicating that students who may not have any formal support networks off campus at least have informal peer networks to turn to.

There were three questions designed to measure the administrative or procedural side of campus social support. The results of the questions were much more consistent. For example, 40% disagreed that "If I have a question problem concerning classes, professors, or university procedures I know where to go for help" (22.7% neutral, mean 2.92, standard deviation 1.31). Only 43% agree that they "have an academic advisor they can turn to for advice" (15.5% neutral, mean 3.02, standard deviation 1.5). Additionally,

only 41% agree that “people on campus are friendly and helpful”, with 36.8% giving a neutral response (mean 3.23, standard deviation 1.06). These 5 questions comprise the general social support scale (standardized alpha .73). The scale is designed to measure the level of social support, interpersonal and procedural, that female students perceive on campus. The mean for the social support scale is 3.18 (out of a maximum of 5 with a minimum of 1), indicating that most women feel indifferent, on the verge of negative, about campus social support.

(Insert table 9 here)

Do women on campus perceive that they are being discriminated against? It does not appear to be so at this level of analysis. On a 1 to 5 Likert type scale, with 1 being strongly disagree and 5 being strongly agree, only 8.5% agree that they have been discriminated against because of their gender (mean 1.8, standard deviation 1.03) and 7.1% agree that they have been discriminated against because of their race (mean 1.5, standard deviation 1.00). Assuming that women of color experience this race-based discrimination, this figure is somewhat alarming- that would be more than half of non-white respondents reporting racial discrimination. This will be examined more clearly in the bivariate results.

Further, 8% agree that they have been discriminated against for another reason (mean 1.7, standard deviation 1.1). In this last question, respondents who answered that they have experienced any other type of discrimination besides race or gender were given an opportunity to classify the discrimination as age-ism, able-ism, classism, or homophobia. Of those who reported some other form of discrimination, the percentage breakdown, by type of discrimination is: disability (3.3%), age (17%), class (8.5%), and

Table 9: Social Support

Variable	Percent	Mean	Standard Deviation
Strong support network			
Agree	20.3	2.64	1.11
Disagree	44.8		
Neutral	34.9		
Have a friend to talk to			
Agree	67.4	3.88	1.35
Disagree	18.9		
Neutral	13.7		
Know where to go for help			
Agree	36.8	2.92	1.31
Disagree	40.5		
Neutral	22.7		
Can turn to academic advisor			
Agree	43.0	3.02	1.48
Disagree	41.5		
Neutral	15.5		
People on campus are helpful			
Agree	41.0	3.23	1.06
Disagree	22.2		
Neutral	36.8		
Statistics for scale		15.70	4.33

sexual orientation (4.2%), these totals do not add up to 100% because not all respondents who reported another form of discrimination attributed the source of extent to which respondents feel discriminated against on campus. The mean for the discrimination scale is 1.7, indicating that most students strongly disagree when asked if they've been discriminated against.

(Insert table 10 here)

Is there a perceived need for a campus mentoring program? Early results indicate that this may be the case. For instance, 66% of respondents agree that “a mentoring program would be beneficial to women on campus”, with 26.5% giving a neutral response (mean 4.0, standard deviation 1.0). Likewise, 56% feel that “It would be nice to have a mentor to listen when I need to get something off my chest” (28.7% neutral, mean 3.7, standard deviation 1.2). In addition, 50% agree that they would “talk to a mentor if they needed an objective opinion about a situation in their life” (24.5% neutral, mean 3.5, standard deviation 1.3). Further, fully 80% feel that it would “be helpful to have a mentor to give advice about UC procedures” (14.1% neutral, mean 4.21, standard deviation .93). Subsequently, 51% agree that “I sometimes wish that I had a person on campus to turn to for advice” (23% neutral, mean 3.46, standard deviation 1.32). Also, 75.5% would “talk to a mentor about academic and/or career concerns (17.4% neutral, mean 4.2, standard deviation 1.0) and 30% would talk to a mentor about her personal life (23.2% neutral, mean 2.7, standard deviation 1.4). Lastly, 52% feel that a “having a mentor would enhance my experience at UC” (35.9% neutral, mean 3.65, standard deviation 1.1).

Table 10: Discrimination

Variable	Percent	Mean	Standard Deviation
Basis of race			
Agree	7.1	1.50	1.01
Disagree	85.9		
Neutral	7.0		
Basis of gender			
Agree	8.5	1.77	1.03
Disagree	80.2		
Neutral	11.3		
Some other reason			
Agree	8.0	1.69	1.08
Disagree	77.9		
Neutral	14.1		
Statistics for scale		4.94	2.36

These questions comprise the mentoring scale. This scale is designed to measure the extent to which women on campus perceive a need for a mentoring program. The reliability of the scale is .9 (standardized alpha). The scale mean for mentoring is 3.7, indicating that most students do not have a strong desire for a mentoring program. However, as a score of 4 would denote agreement and support for a mentoring program, it is important too that a large number of respondents clearly do agree that a mentoring program on campus will benefit female students.

(Insert table 11 here)

Correlations Here we'll explore the bivariate statistics, or correlations. Though many of the correlations are small, they are statistically significant ($p=.05$ except where indicated otherwise). That said, there are several correlational relationships that are worth discussing here. Specifically, I will look at relationships involving social support, mentoring, and discrimination.

The background variables that correlate strongest with the support measure are age (-.22), participation in extra-curricular activities (-.27, $p=.001$), and whether the student lives alone (-.22). Other significant correlations include: sexual orientation (-.18), number of hours of employment (-.15), and having a child (-.14). The support measure is also significantly related to the discrimination scale (-.22), and), perceived need for a mentoring program (-.27, $p=.001$).

Summarized simply, these figures mean that students who feel that they have a strong campus support network are more likely to be of traditional student age (18-24 years old), more likely to participate in extra-curricular activities, less likely to live alone, and less likely to have felt discriminated against, less likely to report a need for mentoring.

Table 11: Mentoring

Variable	Percent	Mean	Standard Deviation
Mentoring is beneficial			
Agree	66.9	3.98	1.0
Disagree	6.6		
Neutral	26.5		
Would be nice to have a mentor			
Agree	56.2	3.71	1.15
Disagree	15.1		
Neutral	28.7		
If I needed an objective opinion			
Agree	50.5	3.45	1.27
Disagree	25.0		
Neutral	24.5		
To give advice about UC procedures			
Agree	80.2	4.21	.94
Disagree	5.7		
Neutral	14.1		
To talk about career concerns			
Agree	75.5	4.16	1.01
Disagree	7.1		
Neutral	17.4		
To talk about personal issues			
Agree	30.6	2.77	1.35
Disagree	46.2		
Neutral	23.2		
Would enhance my experience at UC			
Agree	52.8	3.65	1.07
Disagree	11.3		
Neutral	35.9		
Wish I had a person on campus for advice			
Agree	51.5	3.45	1.32
Disagree	25.5		
Neutral	23.0		
Statistics for scale		29.50	6.92

Additionally, those with a strong support network are more likely to be heterosexual, to work 20 hours or less per week, and to have no children. Also, students who report feeling discriminated against are more likely to report that the campus environment is unsupportive than those who have not been discriminated against.

For the discrimination measure there were also several significant correlations. For the background variables, significant relationships with discrimination are race (.20), class (.14), participation in extra-curricular activities (-.13), and grade point average (-.25, $p=.01$). This means that more women of color report discrimination than white women, and that working and lower class women report feeling discrimination more than middle to upper-class women, and that women who participate in extra-curricular activities feel less discrimination than women who do not.

Likewise, the mentoring measure also had some interesting relationships with the background variables. Mentoring is significantly related to class (-.14), participation in extra-curricular activities (.14), and grade point average (-.20). Women who participate in extra-curricular activities, working and lower class women, and women with lower grade point averages are more likely to perceive a need for a mentoring program.

The discrimination measure is also correlated with the support measure (-.22) and the mentoring measure (.30, $p=.001$). Students who feel discriminated against are less likely to say that they have a strong support network on campus and more likely to support a mentoring program than students who do not feel discriminated against.

Lastly, this measure was correlated with the discrimination measure (.30, $p=.001$) and the support measure (-.27, $p.001$). Here we see that women who feel discriminated against are more likely to say that they support the establishment of a campus mentoring

program than women who do not feel discriminated against. Likewise, women who report an inadequate support network are more likely to perceive a need for mentoring program than those who feel they have a strong support network.

(Insert table 12 here)

Regression The above results show how pairs of variables are related to each other. Below, we'll explore the relationships between multiple variables by using Ordinary Least Squares Regression. Three regression analyses were performed which used social support, discrimination, and mentoring as the respective dependent variables. The first analysis regresses social support on background variables, the second regresses discrimination on the background variables, and the third regresses mentoring on the background variables plus discrimination and social support. Some explanation of these findings is included here; the full ramification of these statistics will be discussed in the next section.

The first regression analysis looks at the effects of the background variables on social support. The background variables used in this model include demographic variables like age, sexual orientation, class, race, hours of employment per week, whether or not the student has children and as well as whether the student lives alone, with roommates, with parents, or with a spouse or partner. Also included are school related variables such as whether or not the student lives on campus, her year in school, major, grade point average, and participation in extracurricular activities.

Table 12: Correlations

Background	Support	Discrimination	Mentoring
Age	-.22**	.09	.12
Race	-.10	.21**	.11
Sexual orientation	-.18**	.06	.03
Hours of employment	-.15*	.02	.08
Major	-.09	-.02	-.01
Class	.05	-.14*	-.12*
Live alone	-.22**	.09	.04
Live with roommates	.14*	.12	.04
Live with parents	.10	-.18*	-.09
Live with spouse	-.08	.00	.03
Live on campus	-.19**	-.10	.04
Have children	-.14**	.05	.07
Year in school	-.05	.11	.03
Extracurricular	-.27***	-.13*	.14*
Grade point average	.09	-.25***	-.20**
Support	1.0	-.22**	-.27***
Discrimination	-.22**	1.0	.30***
Mentoring	-.27***	.30***	1.0

*p= .05
 **p= .01
 ***p=.001

Here the results indicate that roughly 20% of the variance is explained (R Square .19, sig. .003). Three of the variables are shown to have a significant relationship to social support. (Throughout this discussion, b refers to the unstandardized regression coefficient.) The significant variables are: sexual orientation ($b = -4.92$, sig. .03), the student living alone ($b = -3.10$, sig. .02), and participation in extra-curricular activities ($b = -2.31$, sig. = .02). In short, this tells us that lesbian or bisexual students, students who live alone, and students who participate in extra-curricular activities are less likely to report having a strong support network on campus. This may indicate that students who participate in extra-curricular activities don't have time to connect with the campus in other ways.

When comparing the correlations and the regressions, the constellation of significant relationships to social support changes somewhat. To illustrate, in the bivariate analysis age (-.22), hours of employment per week (-.15), and whether the student has children (-.14) are all correlated with social support and significant at the .05 level. However, when controlling for additional background variables, these relationships become non-significant.

The next analysis examines the effects of background variables on discrimination. The same background variables are used in this analysis as were used in the previous analysis. The results of this analysis are summarized below.

This model explains 17% of the variance in responses concerning discrimination on campus (R Square .17, sig. .008). In this model, two of the independent variables are statistically significant. These are race ($b = 1.40$, sig. .05) and grade point average ($b = -1.26$, sig. .01). This means that women of color and women who have lower grade point

averages feel more discriminated against than white women and women with higher GPA's.

Here too, the relationships change from the bivariate results. In the bivariate analysis, class (.14) and participation in extra-curricular activities (-.13) are significantly related to discrimination. Though, again, these relationships become non-significant when other background variables are controlled for.

In the third analysis perceived need for a mentoring program was regressed on the social support, discrimination, and the background variables. Here, the variance explained 19% (R Square .19) and is statistically significant (sig. .01). The only variables in the analysis with a statistically significant relationship to mentoring are discrimination $b = .684$, sig. .01 and social support $b = -.23$, sig. .04. By this we can tell that students have score low on social support and students who score high on discrimination feel more strongly that a mentoring program is needed on campus than women with high social support and low discrimination scores.

As with the other analyses, the regression results for the mentoring scale differ from the bivariate results. In the bivariate analysis class (-.14), grade point average (-.20), and participation in extra-curricular activities (.14) are significantly correlated with the mentoring scale. When controlling for background variables, only the discrimination scale and support scale remain significantly related to the mentoring scale. This means that the effects of the background variables on a student's perceived need for a mentoring program operate indirectly through discrimination and social support.

(Insert tables 13 and 14 here)

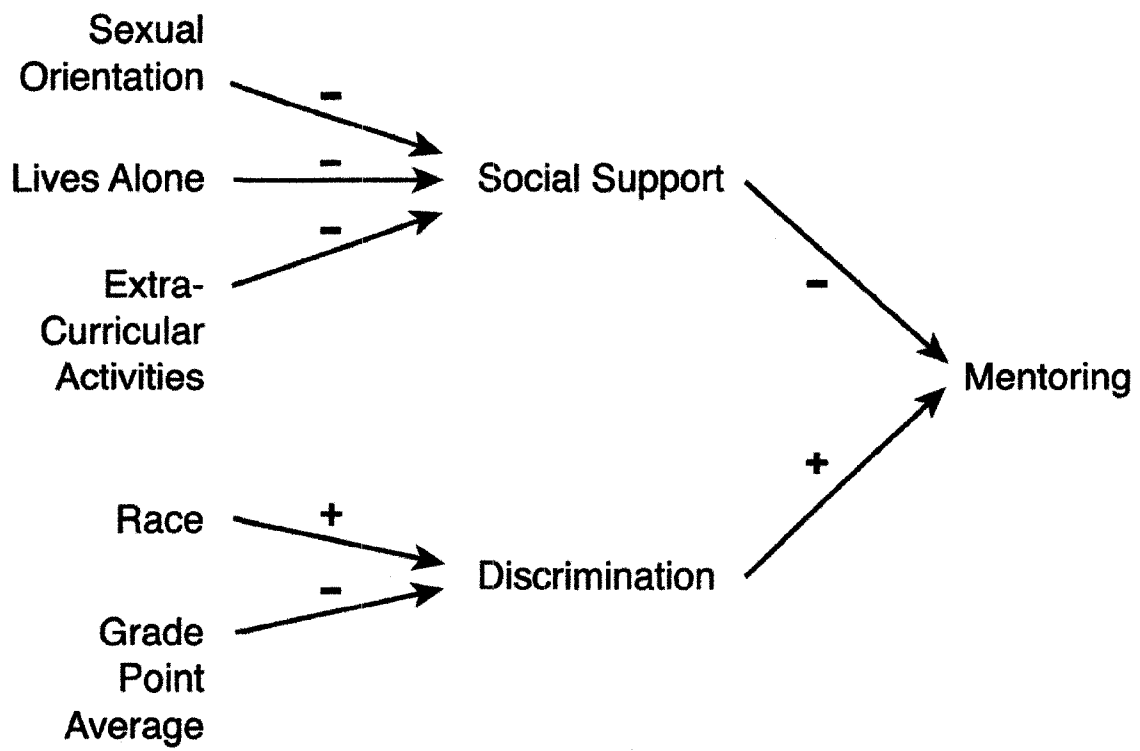
Table 13: OLS Regression (Unstandardized coefficients)

Background	Support	Discrimination	Mentoring
Age	-1.85	.96	1.89
Race	-.32	.14*	-.54
Sexual orientation	-4.92*	.59	-2.26
Hours of employment	-.08	.04	.08
Major	-.48	.03	-.51
Class	-.27	-.34	-.61
Live alone	-3.10*	.26	-.55
Live with roommates	-.81	.61	1.59
Live with spouse	-.59	-.47	-.68
Live on campus	-2.53	-.52	.83
Have children	.08	-.20	-.41
Year in school	-.06	.27	.12
Extracurricular	-2.31*	-.69	2.03
Grade point average	1.10	-1.26**	-2.66
Support	—	—	-.23*
Discrimination	—	—	.68**
R ²	.20**	.17**	.19**

*p= .05

**p= .001

Table 14: Path Analysis



Chapter 5

Discussion

In this thesis data was collected from a random sample of female undergraduates at the University of Cincinnati. These data were then analyzed to determine the relationship between a student's background, level of social support, reported feelings of discrimination, and perceived need for a mentoring program. Here the findings will be discussed and directions for future research will be recognized.

Seven research questions are explored in this thesis. These questions are: 1) will female students in general report that a mentoring program will be beneficial to women on campus, 2) will women in male dominated majors or colleges perceive a stronger need for a mentoring program, 3) will women who are also members of racial or ethnic minority groups recognize a powerful need for mentors, 4) will women who are lesbian, bisexual, or transgender perceive a need for mentors, 5) will women who are reentering the university or entering at a non-traditional age recognize the potential benefits of a mentoring program, 6) will students who have strong support networks not perceive a need for a mentoring program, and 7) will controlling for background variables lessen the effect of discrimination and social support? The answers to these questions are discussed below.

Clearly female students perceive that there is a need for a mentoring program on campus. For example, close to 70% of respondents agree that a mentoring program would be beneficial to women on campus. Additionally, 50% or more of subjects respond positively to all measures designed to tap into support for a campus mentoring program. This perceived need cuts across all demographic categories. Variables that directly

predict whether or not a respondent will show support for a mentoring program are social support and discrimination. Respondents who feel that they have weak social support networks are more likely to feel a need for a mentoring program, as well as students who report feeling discriminated against.

Some of the background variables are related indirectly to a student's perceived need for a mentoring program. For example, race, class, sexual orientation and age are all areas where students reported feeling a lack of support and/or feeling discriminated against. Further, lacking a strong support network and feeling discriminated against makes a student more likely to support a mentoring program. So, while being a particular race, class, sexual orientation or age doesn't necessarily predict that a subject will perceive a need for a mentoring program, if a subject feels discriminated against for being a particular race, class, and/or age then they are more likely to feel a need for mentoring.

Women in male dominated majors did not report feeling less support or more discrimination than their counterparts in neutral or female dominated majors. This particular variable does not appear to be either directly or indirectly related to support for a mentoring program. Respondents in male dominated majors support mentoring at the same rate as respondents from other majors.

As stated above, the relationship between race and mentoring is indirect. Subjects who are members of racial and/or ethnic minority groups are more likely to support a mentoring program if they feel discriminated against and/or feel that they have a weak social support network. Because women of color are more likely to feel discriminated

against, they are indirectly more likely to support a mentoring program than white women.

Similarly, the relationship between sexual orientation and mentoring is also indirect. Students that identify as lesbian or bisexual are less likely to report a strong support network. Here, sexual orientation operates indirectly through social support to make lesbian and bisexual women more likely to support a mentoring program.

It is interesting that lesbian and bisexual women did not report high levels of discrimination. There could be several reasons for this. One is that most sexual minority students may remain in the closet, thereby avoiding discrimination. Another reason may be that even when LGBT people are 'out', others still tend to assume they are heterosexual unless told otherwise. This means that there are many interactions where a person of color would be likely to be discriminated against, such as being tailed in a store, that an LGBT person could easily avoid (barring they fit any prominent stereotypes about LGBT people). Lastly, it could mean simply that overt discrimination is uncommon among the respondents and that lack of social support is a more pressing issue.

Again, the relationship is indirect for non-traditional women's support for a mentoring program. The univariate analysis shows that students over 25 and students with children are both more likely to report a weak social support system. Though this relationship becomes non-significant in the regression analysis, the correlational relationship is worth paying attention to.

Finally, what about students who have a strong support network already? Will these students still see a need for a mentoring program? Although these students are less

likely to report needing a mentor, given that a full 80% of respondents feel a need to have a mentor to give advice about UC procedures and that 75.5% want a mentor to help them through academic and career concerns it appears that the answer is yes. With these services in particular, even students who have a support network can benefit.

Some unexpected findings include the strength of the relationships between grade point average and participation in extra-curricular activities to social support, mentoring, and discrimination. In the regression analysis focused on discrimination, grade point average and race have a strong effect on whether a student feels discriminated against. White students and students with a higher grade point average are less likely to feel discriminated against.

So what's going on with these surprise findings? Well, one possibility for the relationship between grade point average and discrimination may be that as students who have lower grade point averages interpret things differently. It could be possible that students with lower grade point averages come from poor or working class backgrounds and feel discriminated against because of that.

Though this interpretation violates the ordering of the causal model, I feel it is worth mentioning. This phenomenon may be related to a chain reaction whereby a student feels discriminated against, which lowers morale and the student's grades drop. It is no secret that discrimination has a negative impact on self-esteem which can lead to depression, making it hard for a student to concentrate on how well she is doing in school. Also, feeling discriminated at school can weaken a student's connection to campus and college in general, leading to less effort going into school work.

Another surprise finding was that students' extra-curricular participation is negatively related to social support ($b = -2.31^*$, $p < .05$). Intuitively, it makes sense that students should feel greater levels of social integration and support if they participate in extra-curricular activities. However, the questionnaire made no distinction between university sponsored extra-curricular activities or those unrelated to the university. So this finding may mean that students who participate in off campus activities feel less social support on campus.

Directions for future research The most significant gap in the current research on this subject is the dearth of studies that focus on undergraduate women and mentoring. Many studies report on women's undergraduate college experience generally, and many of these suggest the establishment of mentoring programs as a way to alleviate whatever problems they have found women in college contend with (Hall and Sandler 1988, Jacobi, 1991, Moss et al 1999). However, barely a handful explore undergraduate mentoring programs for women in any depth.

The research that focuses specifically on mentoring is usually focused on women in the corporate world or women in graduate school (Kearney, et al 1997). While these studies report positive effects for women who participate in mentoring programs, there is no discussion about how the experiences of corporate women and women in grad school differ from those of undergraduate women students. There is no discussion about what different approaches might need to be considered when developing a program for undergraduate women.

Further, most studies on undergraduates focus mostly on "traditional" students (Jacobi 1991). Even studies on women students often fail to adequately address

differences in the college experience based on class, race/ethnicity, age, hours of employment and a host of other background variables (Hall and Sandler 1988, Moss et al 1999). It is imperative that this gap in research be closed if higher education is made a welcoming place to all students

The first direction for future research is to fill in some of the gaps mentioned above. College students now are more diverse than ever, in many ways. For example, the number of women enrolled in college is now equal or greater to that of men, racial minorities and first generation students are completing degrees in record numbers, there has been a steady increase in the number of adult students returning to complete their education, and more students have work and family commitments than ever before (Pearson et al 1989; Gmelch 1998). To retain these students and help them get the most out of their education, schools need to understand their experience.

It is also important that research is done in the area of program evaluation for mentoring programs that are already in place. What draws students to participate in a mentoring program? What makes a program successful? What kind of programs are already in place for students, in particular for students who may be at risk? How are mentors and protégé's recruited? Is it important that mentors be matched on as many background variables as possible? What specific needs do mentors fill for the students? All of these are questions that must be answered if effective mentoring programs are to be established.

Many studies make a connection between mentoring and student success. In an era where college and universities compete for students like businesses compete for customers, an effective mentoring program can offer a competitive edge. More

importantly, they have the potential to improve student's college experience and subsequent success.

Conclusion This research clearly shows that women students at the University of Cincinnati feel that a mentoring program would be beneficial to students. While students who have weak social support networks and students who feel discriminated against are somewhat more likely to support the establishment of a mentoring program, a clear majority of subjects indicate that a mentoring program would enhance their college experience.

It is important to note also that students from all backgrounds believe in the advantages that a mentoring program could offer them. White women, women of color, women from lower class to upper class, heterosexual women and lesbian or bisexual women, new students and returning students, all respondents agree that it would be helpful to have a mentor. There were differences in the strength of support networks and in levels of perceived discrimination but support for a mentoring program is very high regardless of these relationships.

What respondents reportedly wanted most from their mentoring was guidance about UC procedures, academic advice, and career concerns. These are issues that all students share concerns about and can benefit from. For minority students, an effective mentoring program could provide a campus connection that encourages retention for "at risk" students. Also, mentors can help ease the transition from college to the working world by giving students a jump-start on their networking. After all, we all know there is a grain of truth in the expression "It's not what you know, it's who you know". One of

the most important indicators of where a student will end up, may be the support she gets along the way.

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Appendix A: Copy of Questionnaire and Cover Letter

September 1998

Dear student,

Hi, my name is Jaime McCauley and I am a student at UC in Sociology and Women's Studies. As part of an internship at the University of Cincinnati Women's Center I am conducting a survey about the need for a mentoring program for women students. The survey is completely anonymous. Your name was chosen from a computer generated random selection of female undergraduate students at UC and you are not required to put any identifying information on the survey. There is no way that your responses can be traced back to you.

Some of the questions focus on discrimination or other aspects of your experience that may be less than positive. Should you experience any strong negative feelings or reactions please feel free to call the Psychological Services Center on campus at 556-0812. My advisors for this project are Dr. Marcia Bellas, Department of Sociology, and Chris Bobel of the UC Women's Center. If you have questions about the research you can reach Dr. Bellas at 566-1017 or Chris Bobel at 556-3279. Also, you can reach me at 470-4825. Thank you!

Sincerely,

Jaime McCauley

Some women find the campus environment at the University of Cincinnati to be friendly and supportive while others experience feelings of isolation and alienation. On a scale of 1 to 5, 1 being strongly disagree and 5 being strongly agree, please evaluate the following statements:

1. I feel that I have a strong support network on campus.
Strongly disagree 1 2 3 4 5 strongly agree

2. If I have a problem concerning classes, professors, or university procedures I know where to go for help.
Strongly disagree 1 2 3 4 5 strongly agree

3. If I have a problem or question about academics, I have an academic advisor that I can turn to for advice.
Strongly disagree 1 2 3 4 5 strongly agree

4. If I have a personal problem, I always have a friend to talk to.
Strongly disagree 1 2 3 4 5 strongly agree

5. I feel that, generally speaking, people on campus (faculty, staff, and students) are friendly and helpful.
Strongly disagree 1 2 3 4 5 strongly agree

6. I have experienced discrimination and/or prejudice on campus because I am female.
Strongly disagree 1 2 3 4 5 strongly agree

7. I have experienced discrimination and/or prejudice on campus because of my race/ethnicity.
Strongly disagree 1 2 3 4 5 strongly agree

8. I have experienced discrimination and/or prejudice on campus for another reason.
Strongly disagree 1 2 3 4 5 strongly agree
Please check all that apply:
 Social Class
 Age
 Disability
 Sexual Orientation

9. If I were to experience discrimination, I know the appropriate procedures for filing formal complaints and grievances on campus.
Strongly disagree 1 2 3 4 5 strongly agree
10. I feel that if I wanted to improve the campus environment, my actions could make a difference.
Strongly disagree 1 2 3 4 5 strongly agree
11. I sometimes wish that I had a person on campus that I could turn to for advice.
Strongly disagree 1 2 3 4 5 strongly agree
12. The size and complexity of the university seems overwhelming at times.
Strongly disagree 1 2 3 4 5 strongly agree
13. I believe that a mentoring program would be beneficial to women on campus.
Strongly disagree 1 2 3 4 5 strongly agree
14. It would be nice to have a mentor to listen when I need to get something off my chest.
Strongly disagree 1 2 3 4 5 strongly agree
15. I would talk to a mentor if I needed an objective opinion about a situation in my life.
Strongly disagree 1 2 3 4 5 strongly agree
16. It would be helpful to have a mentor to give advice about UC procedures.
Strongly disagree 1 2 3 4 5 strongly agree
17. It would be best to have older students mentoring younger students.
Strongly disagree 1 2 3 4 5 strongly agree
18. I believe that a mentor should be a member of the UC faculty or staff.
Strongly disagree 1 2 3 4 5 strongly agree

19. I would talk to a mentor about academic/career concerns.

Strongly disagree 1 2 3 4 5 strongly agree

20. I would talk to a mentor about my personal life.

Strongly disagree 1 2 3 4 5 strongly agree

21. Having a mentor would enhance my experience as a student at the University of Cincinnati.

Strongly disagree 1 2 3 4 5 strongly agree

22. I do not believe that I would use a mentoring program but I think it is a valuable resource for other students.

Strongly disagree 1 2 3 4 5 strongly agree

Now, please answer a few questions about your background...

1. What is your age? [] 17 or younger

[] 18 to 25

[] 25 to 30

[] 30 or older

2. What is your race/ethnicity?

[] African American

[] Caucasian

[] Hispanic/Latina

[] Asian

[] Other (please specify _____)

3. What is your sexual orientation?

[] Heterosexual

[] Bisexual

[] Lesbian

4. On average, how many hours are you employed per week?

- 0-10
- 10-20
- 20-30
- 30 or more

5. Do you have access to other forms of income? (please check all that apply)

- No
- Yes, from parents
- Yes, from financial aid
- Yes, from another source

6. How would you classify your socioeconomic background?

- Lower Class
- Lower Middle Class
- Middle Class
- Upper Middle Class
- Upper Class

7. Do you live on campus?

- Yes
- No

8. Do you live...

- alone
- with roommates
- with parents
- with spouse/partner

9. Do you have children?

Yes

No

If yes, do you live with your children?

Yes

No

10. What is your year in school?

1st

2nd

3rd

4th

5th or more

11. What is your major?

12. What is your overall GPA?

13. Do you participate in any extracurricular activities?

Yes

No

Thank you for your assistance, and finally:

If you would like to talk about your feelings and ideas concerning a mentoring program at UC please provide your name, address, phone number, and/or email. You only need to provide this information if you would like to be interviewed.

Appendix B: Literature Review Tables

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>Reisberg, Leo, <i>Latest UCLA Higher Education Research Institution Survey Details Gender Differences among Students Attending Two and Four Year Colleges</i></p>	<p>University of California at Los Angeles Higher Education Research Institute National Survey of 261, 217 students at two and four year institutitons</p>	<p>Questions on feelings of anxiety, depression, and being overwhelmed, drinking and smoking habits and community involvement</p>	<p>Does student worry about paying for college, student's academic major, whether student interested in affecting social values, raising families, and getting involved in the community</p>	<p>39 % of women report feeling overwhelmed, as do 19% of men; 11% of women are frequently depressed, compared to 7% of men, more women smoke than men,women report more community involvement</p>
<p>Jacobs, Jerry A., <i>Gender inequality in Higher Education</i></p>	<p>Review of literature concerning gender and higher education</p>	<p>Analysis of college experience in relation to field of study, percent of women faculty, harassment, and coeducational vs. women's colleges</p>	<p>Access to higher education, college experiences, postcollegiate outcomes</p>	<p>Women fare relatively well in the area of access, less well in terms of the college experience, and are particularly disadvantaged with respect to the outcomes of schooling. Women are underrepresented in science and engineering, male faculty outnumber female faculty, women lack role models, sexual harassment and assault contribute to a hostile climate for women.</p>
<p>Ferron, Robbie; <i>American Indian Women in Higher Education: Common Threads and Diverse Experiences</i></p>	<p>Assessment of obstacles common among American Indian women students</p>	<p>Obstacles to higher education include: economic difficulties, lack of adequate child care, discrimination,</p>	<p>Also considered is the amount of conflict the American Indian woman experiences between her tribal culture and the predominant "American" culture</p>	<p>Indian women in leadership roles find the dynamics of heterosexual relationships troubling, a deeper concern for Indian women leaders is necessary for the survival of Indian tribes and cultures</p>

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>Hall, Roberta M. and Bernice R. Sandler. <i>Academic Mentoring for Women Students and Faculty: A New Look at an Old Way to Get Ahead</i></p>	<p>Report on mentoring sponsored by the Project on the Status and Education of Women</p>	<p>Explores issues such as why men may hesitate to mentor women, why female mentors are hard to find, how mentoring benefits the protege, the mentor, and the institution</p>	<p>It is postulated that women in nontraditional fields, "older" women, minority women, and disabled women may have more acute mentoring needs</p>	<p>Newcomers to academia have much to gain from having a mentor including access to important, often informal, social networks, "women need mentors not only of their own race and sex, but of the race and sex that commands the environment in which they are trying to become competent"</p>
<p>Jacobi, Maryann. <i>Mentoring and Academic Success: A Literature Review</i></p>	<p>Review of scholarly literature on the topic of mentoring and undergraduate academic success</p>	<p>Effectiveness of cross race and cross gender mentoring is addressed; mentors assist in emotional and psychological support, assistance with professional development, and by role modeling</p>	<p>Also considered is prevalence of mentoring in higher education</p>	<p>Students who participate in mentoring programs report more satisfaction with the university environment and showed greater developmental gains, women and students of color may experience difficulty relating to and/or learning from mentors of a different race or gender.</p>
<p>Kraig, Beth. <i>Faculty and Staff Mentors for LGBT Students: Key Responsibilities and Requirements</i></p>	<p>An openly lesbian faculty member dicusses what she has learned from mentoring students of various sexual orientations</p>	<p>Considers what the term role model really means, how she has affected her students, how her students have affected her</p>	<p>What are the needs and risks of the LGBT student population, as well as the needs and risks of mentors for these students, how to interact with LGBT students</p>	<p>The author sees her role as a mentor in terms of "simply trying to clear some debris from the paths that these students are so well prepared to travel".</p>

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>McNaron, Toni A.H. <i>Mapping a Country: What Lesbian Students Want</i></p>	<p>The author dicusses how to address the particualr needs of lesbian students, as articualted by students themselves in focus groups</p>	<p>Heterosexist language and presumptions make the college environment uncomfortable for many lesbian students, for many of these students safety is a primary concern, as well as discrimination</p>	<p>Lesbian and gay history and culture is omitted from curriculum, whther examples used in class reflect the LGBT experience/ community, do graduate students have "gay friendly" examing committees and research panels</p>	<p>"Lesbian students desperately need women faculty to read this and other essays, consider their own personal lifestyles (whether lesbian or heterosexual), and, most centrally, map the connection between those lifestyles, the cultural message attendant on each, and the resultant emphases in their courses research and writing".</p>
<p>Melendez, Sara E. and Janice Petrovich. <i>Hispanic Women Students in Higher Education: Meeting the Challenge of Diversity</i></p>	<p>Commentary on the unique issues and problems facing Hispanic women students in academia</p>	<p>Programs in place to assist Hispanics largely focus on assimilation and downplay the student's own cultural heritage</p>	<p>Study focuses on the limits to access, culture and communication, and institutional barriers.</p>	<p>Hispanic cultural values of cooperation, respect for people's feelings, intrinsic motivation, interdependence and zest for life can positively influence the campus environment, a more caring campus environment is an asset to the university as a whole and encourages involvement, excitement, and success from all students</p>
<p>Nieves-Squires, Sarah. <i>Hispanic Women: Making their presence on Campus Less Tenuous</i></p>	<p>Draws on information from the files of the Project on the Status and Education of Women, published materials, informal interviews, and anecdotal material collected through an informal questionnaire</p>	<p>A Project on the Status and Education of Women report that examines some of the experiences that Hispanic women have as students, faculty members, and administrators</p>	<p>Degree of racism, degree of adaptation to dominant culture and ties to native culture, proficiency in English, and financial need</p>	<p>Many suggestions for improvement are offered in the areas of administration, institutional data gathering, curriculum, faculty, students, and professional associations and organizations</p>

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>O'Barr, Jean F. 1989. <i>Reentry Women in the Academy: The Contributions of a Feminist Perspective</i></p>	<p>The author recounts her experiences as a founder of Women's Studies and former Director of Continuing Education at Duke University.</p>	<p>Non-traditional students may not fit faculty and administration member's ideas of what a student is, therefore the needs of these students may be neglected and they may face discrimination.</p>	<p>Assesses needs and concerns of women reentering higher education.</p>	<p>Returning women students are found in every type of institution, pursuing every kind of degree, while continuing to face patterns of discrimination in some areas of study and in classroom expectations generally.</p>
<p>Renn, Kristin A. 1998. <i>Lesbian, Gay, Bisexual, and Transgender Students in the Classroom.</i></p>	<p>The author cites numerous studies which report high percentages of LGBT students saying that violence, harassment, and discrimination are prevalent on their campuses.</p>	<p>On some campuses as many as 66% of LGBT students fear harassment or discrimination by students and 60% did not feel safe being open about their sexual orientation.</p>	<p>Dependent variables include level of involvement, emotion, and construction of meaning.</p>	<p>Overt victimization of LGBT students is clearly a problem; students also suffer a passive acceptance of this treatment by faculty and administration. These problems may be alleviated by being more inclusive of lesbian and gay material, research, and issues.</p>
<p>Rowe, Mary P. 1989. <i>What Really Works: The One-To-One Approach</i></p>	<p>Review and assessment of different strategies that have been successful in integrating women and minorities into academe</p>	<p>The institutional level mandates regarding equal access and anti-discrimination have little effect on the campus environment without a committed administration</p>	<p>Variables considered include commitment to action of institution, recruitment issues, mentoring, and network building.</p>	<p>Women and minorities face problems in academe such as: overt discrimination, subtle discrimination, and red tape when trying to deal with these officially. Strategies to deal with these are one-to-one recruitment of women and minorities, one-to-one mentoring of women and minorities, and an adequate complaint system set up for these individuals.</p>

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>Sadker, Myra and David Sadker. 1994. <i>Higher Education: Colder by Degrees</i></p>	<p>The authors use evidence from their research on observing classroom interaction as well as anecdotal evidence to explore the campus climate for women in higher education</p>	<p>Women see themselves represented less in faculty and administration, sexual harassment and rape on campus contributes to a "chilly climate" for women</p>	<p>Also considered are issues like how often women are called on in the classroom, whether women given the same amount of attention as men, whether women encouraged as much as men</p>	<p>The evidence mounts in support of the "chilly climate" assessment of college campuses. Men are called on more than women and are taken more seriously. Rape and sexual harassment are prevalent.</p>
<p>Schneider, Beth E. 1987. <i>Graduate Women, Sexual Harassment, and University Policy</i></p>	<p>837 questionnaires were sent to a random sample of female graduate students at a major East Coast public university, of this 356 were returned completed</p>	<p>The purpose of the study was to measure incidents of sexual harassment of graduate women by male faculty, graduate students, and undergraduate students</p>	<p>Other issues were whether or not students experienced "everyday" harassment, concerns around consensual dating and sex and coercive dating and sex</p>	<p>Sexual harassment proved to be only one of graduate women's problems. Others include gender harassment, invidious comparisons to male counterparts, disparagement of their research interests, and the inability of male advisors to understand female students</p>
<p>Seymour, Elaine. 1995. <i>Revisiting the "Problem Iceberg": Science, Mathematics, and Engineering Students Still Chilled Out</i></p>	<p>75 % of data were gathered by personal interviews, and the remaining 25% from focus groups of three to five members. Sample consisted of current and former science, math, and engineering (SME) majors</p>	<p>SME faculty were reported to be difficult to approach, curve grading seen as an attempt to drive students away, some majors expressed feeling betrayed by their college</p>	<p>Variables also considered are loss of interest in science, poor teaching, feeling overwhelmed by the pace and load of curriculum demands</p>	<p>Poor teaching was a major concern of students who switched from SME majors, many "switchers" level of ability and application should have predicted success in an SME major yet lack of an encouraging learning environment led them away from SME related fields</p>

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>Sullivan, Patricia. 1998. <i>Sexual Identity Development: The Importance of Target or Dominant Group Membership</i></p>	<p>Meta-analysis of literature from the late 1970's through the early 1990's</p>	<p>In a climate that is often marked by homophobia, heterosexism, and marginalization of sexual minorities, most students, including straight students, struggle with issues of sexual identity development.</p>	<p>Student's identification with gay culture and community and the climate of societal heterosexism, societal fear of homosexuality, denigration of gay persons and cultures, and level of invisibility or outright oppression of gay relationships</p>	<p>There are several stages of Sexual Identity Development that most young adults go through. These include naivete, acceptance, resistance, redefinition, and internalization.</p>
<p>Watkins, Brian L. 1998. <i>Bending Towards Justice: Examining and Dismantling Heterosexism on College and University Campuses.</i></p>	<p>Meta-analysis of literature from the 1990's</p>	<p>Of 3000 institutions of higher education only 250 include sexual orientation in their Affirmative Action statements, many schools do not respond seriously to anti-gay violence</p>	<p>The impact of heterosexism on the campus community, how heterosexism hurts everyone, defining heterosexism</p>	<p>A 1994 study found that 57% of gay students do not feel safe on their campuses, a 1992 study reports that heterosexism and homophobia marginalize gay students but also affect straight students by locking them into rigid gender roles. Suggestions are offered to reduce heterosexism on campuses.</p>
<p>Widnall, Sheila E. 1988. <i>AAAS Presidential Lecture: Voices from the Pipeline</i></p>	<p>Statistical research is combined with the authors experience as president of the AAAS</p>	<p>Feelings of frustration and discouragement at "the system", "pressures and roadblocks experienced", undervaluation of women's achievements, subjection to inappropriate treatment</p>	<p>lowering of career aspirations, perceptions of preparation for graduate study</p>	<p>Women are more likely to be assigned to teaching assistant positions which hurts their opportunities for future research positions, women report that their self esteem lowers in college, men report a rise in self esteem, women students feel that they are seen as women first and students second</p>

Author/Title	Data and Sample	Measures of "Campus Climate"	Dependent Variables	Results/Significant Findings
<p>Woo, Sheila E. 1997. <i>Asian Americans in Higher Education: Issues of Diversity and Engagement.</i></p>	<p>Methodology not included in this article, see The Diversity Project, 1991 and Woo, 1996.</p>	<p>Subtle experiences of exclusion, tug of war for group affiliation, stereotypes</p>	<p>Learning to be an Asian-American</p>	<p>There are four major recommendations for racial diversity: 1) addressing problems of orientation, adjustment and integration, 2) accommodating student needs for ethnic support groups, 3) widely publicizing information on the admissions policy, 4) establishing a greater role for faculty in encouraging student interaction</p>
<p>Yamauchi, Joanne Sanae and Tin-Mala. 1989. <i>Undercurrents, Maelstrom, or mainstream: A Profile of Asian Pacific American Female Students in Higher Education.</i></p>	<p>Reviews literature of Asian Pacific American (APA) women in higher education</p>	<p>Influence of societal myths and stereotypes on the experience of APA women students, proportionately less APA women in higher education</p>	<p>Cultural value orientations, current educational initiatives, and implications for institutional change.</p>	<p>Recommendations include implementation of multicultural education courses, recognition of the accomplishments of APA students, assessment of institutional discrimination against APA students</p>