

A COMPARISON OF MALE AND FEMALE COLLEGE STUDENT PRESIDENTS
ON SELF-ESTEEM, SEX-ROLE IDENTITY, ACHIEVING STYLES
AND CAREER ASPIRATIONS BY GENDER COMPOSITION OF
STUDENT ORGANIZATION

by

Jana Ellen Varwig

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Advisory Committee:

Assistant Professor Marylu K. McEwen,
Chairperson/Advisor
Professor George Marx
Associate Professor William Sedlacek
Assistant Professor William Thomas, Jr.
Associate Professor Bonnie Tyler

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Varwig
J.E.
Folio

ABSTRACT

Title of Dissertation: A COMPARISON OF MALE AND FEMALE COLLEGE STUDENT PRESIDENTS ON SELF-ESTEEM, SEX-ROLE IDENTITY, ACHIEVING STYLES AND CAREER ASPIRATIONS BY GENDER COMPOSITION OF STUDENT ORGANIZATION

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Dissertation directed by: Marylu K. McEwen, Assistant Professor, Counseling and Personnel Services

The purpose of this study was to explore gender differences in the self-esteem, sex-role identity, achieving styles and career aspirations of 164 male and female college student leaders. Also explored were potential differences between student leaders of single-sex and mixed-sex groups across the same dimensions. All presidents of registered student organizations were asked to participate in the study. Seventy-one percent of the presidents responded and were included in the study. Respondents were administered the Rosenberg Self-esteem Scale, the Bem Sex-role Inventory, the L-BLA Achieving Styles Inventory and a questionnaire containing items on career aspirations. No significant differences were found between male and female student

leaders on the self-esteem or sex-role identity variables. Significant gender differences were found on five of the nine achieving styles and on two of the indicators of career aspiration -- college major and preference for a full-time or interrupted career. No significant differences were found between student leaders of single-sex and mixed-sex groups.

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CHAPTER I: INTRODUCTION

Experts on higher education believe that students' involvement in activities outside the classroom is critical to their satisfaction with their college experience and is beneficial to their development as responsible and contributing adults (Abrahamowicz, 1988; Astin, 1984; Miller & Jones, 1981; Study Group on Excellence in American Higher Education, 1984). Many colleges and universities provide programs, staff and money to assist students as they pursue co-curricular activities during college (Miller & Jones, 1981). Most colleges and universities also subscribe to the notion that training leaders for the future is part of their mission, and so provide leadership training programs under the auspices of student affairs offices on campus (Miller & Jones, 1981).

Despite higher education's clear interest in providing developmental co-curricular and leadership activities for students, there is little research performed on the students who participate in such programs. Much of the current literature describes leadership training programs which have been developed through the trial and error efforts of student affairs staff rather than through any informed research (Golde, 1987). Other literature focuses on the long-term benefits

for students who become involved in campus activities (Downey, Bosco & Silver, 1984; Schuh & Laverty, 1983) or on the leadership styles of student leaders (Capelle, 1967; DeJulio, Larson, Dever & Paulman, 1981; Florestano, 1971). Only a few studies attempt to describe the students who choose to participate in leadership opportunities. However, the literature does suggest that this population may differ from the general student population. Astin and Kent (1983) found that student leaders "started college with a more favorable self-image than did students in general" (p. 314). Other studies indicate that a variety of methods could distinguish between students who ultimately chose leadership roles in college and those who did not (Boardman, Calhoun & Schiel, 1972; Karnes, Chauvin & Trant, 1984). Still, very little is known about this population.

Even less is known about gender differences between students who choose leadership roles. The larger literature on college students in general indicates that there are major differences in the ways that men and women experience college. Several studies suggested, for example, that men's self-esteem is higher than that of women's by the end of college (Astin & Kent, 1983); that women become less confident of themselves academically in college, while men become more confident (Arnold & Denny, 1985; El-Khawas, 1980); that women revise their career

aspirations and graduate school plans in a downward direction during their college years, while men's plans remain consistent (Arnold & Denny, 1985; Leland, 1980).

One study which looked at gender differences suggested that student leadership roles may be positive for women, particularly with relation to their self-esteem. Astin and Kent (1983) found that "relative to all women, female leaders made substantial gains in perceived academic ability, leadership ability, and public-speaking ability. Relative both to all women and to male leaders, they made substantial gains in popularity, popularity with the opposite sex, intellectual self-confidence, and social self-confidence" (p. 315). They concluded that "leadership experiences have more positive effects on women than they do on men" (Astin & Kent, 1983, p. 315).

Despite the value to women of assuming student leadership roles, suggested by Astin and Kent (1983), several studies indicate that the proportion of women college students choosing positions of leadership is less than that of men (Dion & Hartnett, 1980; Oltman, 1970). Nowhere has this been more dramatically demonstrated than at Brown University where, five years after the merger of a women's college, Pembroke, and a men's college, Brown University, the number of student leadership positions held by women had dropped to 22% from nearly 50% prior to

the merger (Dion & Hartnett, 1980).

Several researchers suggest that society's gender stereotypes contribute to the small proportion of women participating in student leadership roles. Hall and Sandler (1984) have argued that the environment in institutions of higher education discourages women from considering leadership positions. They have suggested that women students are not encouraged to consider these roles to the same degree as men students; women students do not have many female role models in positions of leadership; women students receive less advice and support when in positions of leadership; and women students are assumed to be inadequate in leadership roles.

Hall and Sandler (1984) also suggested that women's view of themselves holds them back from assuming leadership positions. They reported that women often do not engage in co-curricular activities until they are sure they can make "a substantial contribution" (p. 6) while men approach these same activities with more confidence and less concern about what they have to offer. Self-esteem, therefore, especially as it relates to women's view of their ability to contribute to leadership roles, seems to be an important element in understanding why women choose or do not choose leadership roles.

Leonard and Sigall (1989) have suggested that once

women assume student leadership positions they must deal with a variety of concerns which do not face men. First, women encounter biased treatment "including not being taken seriously, having to work harder, or be better than men to be respected or get ahead" (p. 220). Often the leadership role will require that a woman use skills which are not stereotypically feminine in nature. In reaction to a woman's appropriately assertive behavior, both men and women student peers may become threatened and rejecting. The woman leader then fears that her leadership role will cost her approval and relationships. Leonard and Sigall (1989) also suggested that those women who choose student leadership roles adopt a masculine model of leadership, and end up paying a heavy price by rejecting what is positive about being female. A woman's decision to assume a leadership role thus becomes a decision about one's relationships with others and about one's sex-role identity.

The picture for women students assuming leadership positions is complex. On the one hand, those women who do assume these roles seem to benefit from them tremendously, even more so than do men (Astin & Kent, 1983). On the other hand, once in these roles, women face environmental obstacles to their success and pay a price in terms of their relationships and identity (Hall & Sandler, 1984; Leonard & Sigall, 1989).

Although the research described above has helped to inform researchers about possible gender differences among the student leader population, it is a long way from providing comprehensive data on this population. In fact, much of the literature on gender differences and leadership was found in the management, psychology or women's studies literature, not in the student personnel literature (Bartol & Butterfield; 1976; Bartol & Martin, 1986). In many of these studies, the participants were college students in general, and not student leaders. Other research came from the large, statistical studies performed annually on national samples of students (Astin, 1978, 1987; Astin & Kent, 1983). These studies covered a wide range of topics and attempted to divide students into different categories, such as by major, year in school, and occasionally by co-curricular involvement, including student leadership as one variable. The difficulty with these studies is that they focused on many variables and did not go into depth on any one variable such as leadership. Clearly, more research is needed which focuses on the students who are choosing to participate in leadership roles before much can really be said about them.

The literature does suggest some general factors which may help to clarify the picture regarding male and female student leaders and how they experience their

leadership roles. Given the differences in self-esteem between men and women college students in general, with women's self-esteem decreasing during the college years, it would be informative to investigate this dimension for student leaders. Already some studies have indicated that student leaders' self-esteem is fairly high, compared with that of students in general, and that the self-esteem of women student leaders seems to benefit most of all from leadership experience (Astin & Kent, 1983).

Sex-role identity is another dimension indicated by the literature as relating to potential gender differences among student leaders. In their roles as leaders, women are postulated to confront a variety of role and identity conflicts including risking rejection by others if they step out of what is stereotypically expected behavior for women. Men are hypothesized as not experiencing these same conflicts. While role and identity conflicts are difficult to measure, an assessment of student leaders' sex-role identities and whether gender differences exist should provide important baseline data.

Achieving styles, that is, the characteristic way in which one approaches achieving, may provide some additional information on the student leader population. Since one must achieve in order to lead, the way one typically chooses to achieve may be of interest in understanding student leaders. The Achieving Styles

Inventory (Lipman-Blumen, 1987) was originally developed using both men and women participants, and includes styles that describe ways that women may achieve rather than describing behaviors which are normative only for men. Thus, it may be useful in exploring gender differences in the way student leaders approach achieving.

The career aspirations of student leaders is another factor which may help to understand the student leader population. The literature on college students in general has indicated that women tend to lower their career aspirations in college, have less ambitious plans for graduate school, and plan for more career interruptions than do men (Arnold & Denny, 1985; Leland, 1980). It is not clear whether women student leaders follow suit and also lower their career aspirations, or if they and their male counterparts pursue more ambitious career plans.

Some leadership studies suggest that the gender composition of groups may have an impact on men's and women's behavior in groups. Bartol and Martin (1986) concluded that particularly in leaderless coed groups, women tended to assume more passive roles, talked less and engaged in more expressive behaviors at the expense of task behaviors. Men also were found to behave differently in coed than in single-sex groups. For this reason, the gender make-up of students' groups was studied as well.

Statement of the Problem

The purpose of this study was to ascertain whether men and women presidents of student organizations differ from each other on several dimensions -- self-esteem, sex-role identity, achieving styles, and career aspirations. A second purpose was to ascertain whether presidents differ from each other if they are leaders of a mixed-sex or single-sex organization.

It was expected that this study would add to the knowledge on the population of presidents of student organizations on campuses, particularly with relation to the dimensions referred to above. There were several reasons to undertake such a study. First, very few studies have focused specifically on students who are elected leaders of their organizations. Given that student affairs professionals spend a great deal of their time working with these students, it makes sense to study this population specifically, rather than assuming that these students share characteristics and behavior in common with the college student population in general.

Secondly, women have been postulated to experience student leadership roles differently from men students. Again, little research has been done to address this. Since much attention is beginning to be focused on the separate experience of women students on campus, it makes sense to ascertain whether or not women are, in fact,

experiencing leadership roles differently from men.

This knowledge would be particularly helpful to those student affairs professionals designing leadership training programs for both men and women. Understanding if and how men and women presidents of student organizations differ on the above dimensions should help to determine the focus and approach of such training. If women presidents have lower self-esteem than their male counterparts, student affairs professionals could address this area in their training. If women presidents were found to have different sex-role identities from those of men, student affairs professionals could direct training to focus on potential conflicts or problems between a particular sex-role identity and the expectations of leadership roles. Knowing that women presidents were found to prefer different achieving styles than do men presidents, student affairs professionals could direct their training and advising sessions in such a way that they capitalize on each gender's strengths and pay attention to weaknesses. Understanding that women presidents may have different career aspirations than men do would enable student affairs staff to advise women presidents more sensitively on their career plans.

Research questions examined in this study include the following:

1. Do men and women presidents of student organizations

differ in their self-esteem, their sex-role identities, their achieving styles and their career aspirations?

2. Do presidents of student organizations involved in mixed-sex or single-sex groups differ in their self-esteem, their sex-role identities, their achieving styles and their career aspirations?

3. Is there a relationship between gender of president of student organization and gender composition of student organization with achieving styles?

It was expected that an accurate knowledge of the presidents of student organizations population on the dimensions described above would be helpful to student affairs professionals in order to train presidents more effectively; to promote student leadership in the general college student population; to identify potential student leaders; and to attain a better understanding of women presidents' experience in a university setting which may be less oriented to their needs than to those of men.

CHAPTER II: A REVIEW OF THE LITERATURE

This chapter reviews the relevant literature and includes sections on college student leaders, the self-esteem of college student leaders, sex-role identities of college students, achieving styles of college students and the career aspirations of college students.

College Student Leadership

Despite the staff time and money spent by colleges and universities on leadership training and advising programs for their students, very little research has been done on the student leader population (McEwen & Higgins, 1980). The literature that does exist falls into some general categories: descriptions of leadership training programs (Frigualt, Maloney & Trevino, 1986; Furr & Lutz, 1987); the benefits of involvement in extra- or co-curricular activities (Abrahamowicz, 1988; Keller & Chambers, 1975); personality traits of student leaders (Boardman, Calhoun & Schiel, 1972; Karnes, Chauvin & Trant, 1984); leadership styles used by student leaders (Capelle, 1967; DeJulio, Larson, Dever & Paulman, 1981; Florestano, 1971); and gender differences among student leaders (Butters & Glade, 1982; Earwood-Smith, 1985; Heft & Deni, 1984; McEwen & Higgins, 1980; Rice, Yoder, Adams, Priest & Prince, 1984; Vale & Riker, 1979; Welsh, 1979). Since not all of these

areas have relevance to the current study, this review will focus only on three topics: personality traits, leadership styles and gender differences.

Personality Traits and Leadership Styles
of Student Leaders

Research indicates that student leaders may have characteristics or traits which separate them from the general college population. Astin and Kent (1983) found that student leaders, defined as students who had been editor of a campus publication, president of one or more student organizations, or a member of a university or departmental committee, had more favorable self-images than did students in general, and their self-images, positive to begin with, increased during their college experience.

In a study of honor students, Karnes et al. (1984) found that the Sixteen PF (Cattell, 1972) could distinguish between individuals who held at least one elected leadership position and those who held no such position. Elected leaders scored as more mature and stable than individuals holding no elected positions of leadership.

Boardman et al. (1972) divided freshman students into groups according to factor score profiles, then compared the groups in the students' junior year on the number of leadership positions held. While there were

no significant differences among the women's subgroups, 59% of the male leaders were found in 5 of the 23 male groups. They concluded that a relationship may exist between students' experiences prior to college and college leadership behavior, and that potential student leaders may eventually be identifiable by these experiences. No explanations were given with regard to the gender differences reported.

Other studies have compared student leaders with non-leaders on the dimensions of initiating structure and consideration, two independent measures of leadership style (Hersey & Blanchard, 1982). The "initiating structure" leadership style provides direction and structure for a group in the accomplishment of the group's tasks, while the "consideration" style provides support for group members in the accomplishment of group tasks. Capelle (1967) found significant differences between male college leaders and nonleaders on both dimensions. In contrast, Florestano's (1971) results indicated differences only on the initiating structure dimension. Interestingly, both of these studies used only male participants.

In a more recent study using both male and female students, DeJulio et al. (1981) found significant differences between leaders and nonleaders on both initiating structure and consideration. No differences

were found between men and women with relation to the two leadership styles for either leaders or nonleaders.

Gender Differences Within the Student

Leader Population

Very little is written on possible gender differences within the student leader population. Even so, the literature spans a variety of topics including leadership training programs for women (Britton & Elmore, 1979; Pomrenke, Dambrot & Hazard, 1983); research investigating gender differences in leadership style (Heft & Deni, 1984; Rice et al., 1984; Stake, 1981; Vale & Riker, 1979); small group research focusing on students' reactions to male and female leaders (Welsh, 1979); research on the differences in the proportion of male versus female leaders (Dion & Hartnett, 1980; Oltman, 1970); and theories about differential treatment of women in higher education, sex-role stereotyping, and implications for women students' leadership (Hall & Sandler, 1984; Leonard & Sigall, 1989).

The areas of literature most pertinent to this study include those focusing on the differential proportions by gender of student leaders and the theories exploring women's experience of leadership as it might differ from that of men's.

Differential Proportions of Men and Women

College Student Leaders

Several studies indicate that the proportion of women

student leaders is less than that of men. Oltman's 1970 study of 454 colleges found women held only 5% of the student body presidencies and among coed institutions, women held only 6.1% of the class president positions. Oltman's study also pointed out that women tended to be in appointive positions rather than elective ones.

Following the merger of a women's college, Pembroke, and a men's college, Brown University, the proportion of women in leadership positions decreased dramatically (Dion & Hartnett, 1980). Prior to the merger, almost half of the total number of student leadership positions were held by women. In 1972, the year following the merger, only 15% of the leadership positions were occupied by women. By 1974, the percentage had risen to 25% but dropped again to approximately 22% in 1976, five years after the merger. While it might have taken women students time to gain access to the leadership positions in Brown's pre-existing organizations, five years after the merger women were still not in leadership positions anywhere near the degree they had been at Pembroke.

Using longitudinal data on college students from over 300 institutions collected by CIRP (Cooperative Institutional Research Program), Astin (1978) reported that while a woman's chances of being elected to student leadership positions were better at a women's college, a man's chances were better at a coeducational institution

than a men's college. This seems clearly to be the case at Brown. Astin asked whether women may be "less likely to be aggressive when they are competing with men" (p. 117), and found support for his hypothesis in data which suggested that women are less verbally aggressive in the classroom at coeducational institutions.

The small proportion of women leaders in relation to that of men may be changing. Astin and Kent (1983) reported in a 1980 CIRP follow-up study of people who had been freshmen in 1971, that 13% of the women had been presidents of one or more student organizations, compared with 16% of the men, and that 5% of the women had been editors of a campus publication, compared with 4% of the men. Finally, 26% of the women had been members of a university or department committee, compared with 25% of the men. While many of these latter positions may have been appointive rather than elective positions, the percentages of men and women in all of these leadership positions were comparable.

In a study of leadership in honor societies which had recently changed from single-sex organizations to coeducational organizations, Earwood-Smith (1985) reported that women held 59.1% of the memberships, and the total number of women officers exceeded that of the men. Interestingly, only in one of the formerly male organizations, Omicron Delta Kappa, did men hold the

office of president in a significantly larger proportion than women. In the other three societies, there was no significant relationship between the sex of the officer and the office being held, except for the office of secretary which was held by women almost entirely. Leadership in honor societies may not be representative of leadership in student organizations generally, however.

College Women's Experience with Leadership Roles

Hall and Sandler (1984) suggested that the smaller numbers of women in leadership positions may be a result of the "chilly climate" with which women are treated in institutions of higher education. They believed that women face barriers in their environment which keep them from seeking out leadership experiences. Some of these barriers are as follows:

Women students may be less likely to be encouraged to seek leadership positions than men, and may need to have 'extra' qualifications to be nominated, elected or appointed.

Women who do hold such positions may find that their credentials are systematically doubted while men's tend to be presumed adequate.

Women may receive less mentoring, help and information so that they function less effectively.

Women may hold top positions, but men of lower organizational status may dominate meetings and make

policy decisions.

Student leaders may be chosen on the basis of gender stereotypes. (Hall & Sandler, 1984, p.11)

Leonard and Sigall (1989) agreed that women student leaders face problems presented by the environment which men do not face. They addressed the psychological pressure these women face as leaders: In being assertive leaders, women must take stands, sometimes using behavior usually and stereotypically reserved for men. In reaction to a woman's appropriately assertive behavior, both men and women peers may feel threatened and become angry or rejecting. Many women student leaders believe that they must decide between maintaining their roles as leaders and their desire for social affiliation, popularity and friendship. Many women students may resolve this conflict of roles by simply choosing not to participate as leaders. If they do choose to lead, despite the consequences, Leonard and Sigall (1989) believed women may choose to follow a masculine leadership model. Women do so, they argued, at the heavy price of rejecting what is positive about being female, and ultimately threatening their feminine identity and self-esteem.

Leonard and Sigall (1989) proposed a model to study women student leaders which included two independent dimensions: awareness of women's issues and leadership skills. Women students may fall into one of four

quadrants based on these two dimensions. The first quadrant is composed of students who are low in leadership skills and awareness of women's issues, the second quadrant is composed of students who are high in leadership skills but low in awareness of women's issues. The third quadrant is populated by students who are aware of women's issues but low in leadership skills, and the final quadrant focuses on those remaining few students who are both aware of women's issues and high in leadership skills.

Gender Composition of Students' Organizations

Bartol & Martin (1986), in their extensive review of research on women and men in task groups, concluded that in leaderless coed groups, women tended to assume a more passive role and engaged in more expressive behaviors at the expense of task behaviors. When women were in same sex groups, however, they were more likely to engage in leadership behaviors. Moreover, they reported, behavior by men in task groups was also influenced by the gender ratio in the group. Men were found to exhibit more competitive instrumental behavior when in all-male groups, yet in mixed-sex groups used more expressive behaviors. While much of this research was done on college students, none of it was performed on the college student leader population. It makes sense, therefore, to include gender composition of group as an important variable in exploring

gender differences between student leaders.

Summary

While some research exists on student leaders in general, very little exists on potential gender differences between men and women student leaders. What is known, however, is that fewer female than male college students choose to participate in leadership roles while in college. Researchers have speculated that women's lower participation rates may be due to barriers they face in the college environment including receiving less encouragement to assume leadership roles than men; receiving less advice, information and support than men in leadership positions; dealing with others' negative and stereotypical views of women leaders; and fearing the loss of approval from friends and others in the campus community. Research also indicates that gender composition of the student leaders' organization may play a part in student leaders' behavior.

Clearly, the environmental barriers women face, the experience they have in their organization, and the gender composition of their group may have an impact on college women's self-concept as leaders and their self-esteem. The next section of the review of literature discusses self-esteem as one variable in college women's experience with leadership roles.

Self-esteem of College Student Leaders

There are many definitions of self-esteem in the literature, and some researchers argue that self-esteem cannot even be defined by a single measure (Stake & Orlofsky, 1981). Because the literature is so vast, this review covers those studies which focused on the self-esteem of college students, with emphasis on those which discussed the self-esteem of student leaders.

For the purposes of this study, self-esteem is defined by the Rosenberg Self-esteem Scale (Rosenberg, 1965), a measure of global self-esteem. Robinson and Shaver (1973) contended that the scale measures the self acceptance aspect of self-esteem. High self-esteem as indicated by the Scale means that an individual believes that he or she is "good enough", and that "the individual respects himself [or herself], considers himself [or herself] worthy; he [or she] does not necessarily consider himself [or herself] better than others, but he [or she] definitely does not consider himself [or herself] worse; he [or she] does not feel that he [or she] is the ultimate in perfection but, on the contrary, recognizes his [or her] limitations and expects to grow and improve" (Rosenberg, 1965, p. 31).

Gender Differences in Self-esteem
of College Students

One of the classic studies pointing to gender differences in self-esteem of college students was conducted by researchers at Brown University. (Several different researchers contributed chapters to this study; therefore it will be referenced using different researchers depending on the topic addressed). The study surveyed approximately 3000 male and female students attending one of six institutions: Barnard College, Brown University, Dartmouth College, Princeton University, the State University of New York at Stony Brook, and Wellesley College (Leland, 1980). Because these institutions are highly selective in their admissions' standards, the survey results may not be entirely generalizable to all college students; however, they are likely to reflect the direction of the measured dimensions. The study was not longitudinal so that causation cannot be inferred. However, students at all four grade levels were surveyed and their responses compared, with the implied assumption that the study measured differences in development across the four year time span. Researchers asked students to rate themselves on 21 traits "as compared with other students your own age" (Leland, 1980).

The Brown study found that both men and women increased in their self-concept over the four year period

they were in college (Astin & Kent, 1980). Equal proportions of men and women rated themselves in the top 10% of college students on several dimensions of self-concept: drive to achieve; social self-confidence; artistic ability; and assertiveness. On other dimensions, however, students' responses reflected sex-role stereotypes. Men were more likely than women to rate themselves highly on such stereotypically masculine dimensions as athletic ability, mathematical ability, mechanical ability, and competitiveness. Women, on the other hand, rated themselves more highly on dimensions focusing on relationships with others: popularity with the same and opposite sex; understanding of others; sensitivity to criticism; and being physically attractive (Astin & Kent, 1980).

Men had more positive views of themselves overall than did women. In particular, although women increased over the four years in intellectual self-confidence and academic ability, they still rated themselves several points lower than men rated themselves (12 and 15 points difference, respectively, on the two dimensions). And, while women's high school grades were higher than those of men, women's grade point averages had decreased in college and were lower than those of men. In fact, the percentage of women rating themselves as highly motivated to achieve actually declined from the freshman to the senior year.

Moreover, while similar proportions of men and women aspired to graduate degrees, women were more likely than men to put off graduate study and to plan on a master's degree rather than a doctoral degree (Astin & Kent, 1980).

Arnold and Denny (1985), in their study of male and female high school valedictorians, found results similar to those of the Brown study. Specifically, the women high school valedictorians in their study showed a sharp decline in their self-estimated report of their intelligence between high school and their sophomore year in college. This same decline did not occur for the men valedictorians. Even more puzzling, the women's decline in confidence occurred in spite of continuing high grades in college and high achievement generally. Arnold and Denny (1985) noted especially that women's loss of academic self-esteem was accompanied by a lowering in their plans for participation in the work force.

Self-esteem was a focus of Astin and Kent's (1983) follow-up study of men and women who entered college in 1971 as well. Using data on over 50,000 students from the Cooperative Institutional Research Program (CIRP), they asked if the college experience raised self-esteem, and if men and women were similar with regard to self-esteem and other goals and values. Their results were similar to those found in the Brown study (Astin & Kent, 1980).

While both men's and women's self-esteem increased over time, "especially with respect to perceived leadership ability, writing ability, intellectual self-confidence, and social self-confidence" (Astin & Kent, 1983, p. 313), women still gave themselves lower ratings than men on ten out of eleven traits. Also mirroring the Brown study's results was the finding that while more female than male freshmen students rated themselves high on drive to achieve, men overcame their initially lower ratings and gave themselves higher ratings than did women (El-Khawas, 1980).

Hall and Sandler (1984) have attempted to explain the process by which they believed women's self-esteem is lowered in college. They argued that women's tendency to de-value themselves because of their gender is reinforced by their college experience. According to "A Chilly Climate", a report published by the Project on the Status and Education of Women and written by Hall and Sandler (1984), most colleges reflect the larger society in the way that women are treated and subsequently made to feel. Hall and Sandler reported that faculty and staff treat women differently and expect less than they do from men. They suggested that higher education is, and has been, an institution intended for and populated by men, and the dominant culture, therefore, is male. In such a culture, women's opinions, which may be different because of a

difference in perspective, are not valued as highly.

Hall and Sandler (1984) also argued that human nature is such that people feel more comfortable working with those who are like themselves. Since the vast majority of faculty and staff in powerful positions are men, women do not receive the same time and attention men receive. Women perceive this differential treatment and interpret it to mean that they do not have as much to offer, thereby lowering their self-esteem and confidence. When little is expected of them they turn this inward as well, believing that they should not expect much of themselves either.

Hall and Sandler's (1984) thesis is supported by the studies reported earlier which indicated that while women enter college better prepared academically than men, by the end of college their grades, their drive to achieve, their career aspirations and some aspects of their self esteem are lower than those of men and may have, in fact, decreased from the time that they entered college (Arnold & Denny, 1985; Astin & Kent, 1983; El-Khawas, 1980; Leland, 1980).

Self-esteem of Women Student Leaders

Astin and Kent (1983) reported that data on the self-esteem of women student leaders did not correspond to that of women college students in general. They stated that student leaders of both sexes (whom they defined as students who had been editor of a campus publication,

president of one or more student organizations, or member of a university or departmental committee) started college with higher self-concepts than did students in general. Moreover, their self-esteem, and especially women's self-esteem, improved over the nine-year time span.

Comparing women student leaders to women students in general, Astin and Kent (1983) found that women student leaders "made substantial gains in perceived academic ability, leadership ability, and public speaking ability" (p. 315). When they compared them with male student leaders, women student leaders "made substantial gains in popularity, popularity with the opposite sex, intellectual self-confidence, and social self-confidence" (p. 315). They concluded that leadership experiences in college have "more positive effects on women than they do on men" (p. 315), and that women's self-esteem and confidence in their interpersonal skills is "enhanced" (p. 315).

Astin and Kent's (1983) findings correspond with those of the Brown study in which El-Khawas (1980) concluded that women's academic development and self-confidence seemed to be related to the opportunity to demonstrate leadership. Men's intellectual and academic self-confidence were not related to leadership experiences to the same degree.

Summary

Studies on college students in general have indicated that while women students enter college better prepared academically than men, their self-esteem in general does not keep pace with that of men. In several studies women rated themselves significantly lower than did men on measures of self-esteem. Women appear to lose ground particularly in the area of academic self-confidence, ranking themselves even lower than they did when they entered college. This decrease in self-esteem is accompanied by a decrease in the proportion of women describing themselves as highly motivated to achieve, as well as amended graduate school and career plans (Arnold & Denny, 1985; Astin & Kent, 1980).

Hall and Sandler (1984) have attempted to describe the process which they believe encourages women's lowered self-esteem in college, suggesting that the college environment holds stereotypical expectations of women and is therefore less supportive of women's achievement. This lack of support is communicated to women students subtly but with impact, causing women to de-value their abilities.

Leadership experiences seem to break the lowered self-esteem cycle for women. Astin and Kent (1983) found that women who were student leaders in college increased in self-esteem over the college years, and in fact, that

leadership experiences appeared to benefit their self-esteem even more than that of male student leaders.

If leadership experience has such a dramatic effect on women's self-esteem, such knowledge would be valuable to the student affairs professionals who work with these students, particularly in designing leadership training programs. Therefore, the present study uses a measure of global self-esteem to compare the self-esteem of women presidents of student organizations with that of men involved in similar activities.

Sex-role Identities of College Student Leaders

Sex-role identity refers to the degree to which an individual tailors one's identity and behavior to fit the culture's definitions of appropriate behavior for his or her gender (Bem, 1974). A traditionally sex-typed individual would be one who attempts to behave in line with an "idealized image of femininity or masculinity" (Bem, 1981, p.4), and selects behaviors which are consistent with that image, and avoids behaviors which are inconsistent with it. A feminine-typed woman, therefore, would be a woman whose behavior fell in line with what society believes to be feminine.

An individual may have a sex-role which is inconsistent with his or her gender. An androgynous sex-role is one which allows an individual to select attributes and behaviors from both masculine and feminine sex-typed behaviors, depending on the situation. Individuals who are cross sex-typed are those who choose behaviors which are culturally and stereotypically more appropriate for the opposite sex than their own gender (Bem, 1974).

Leonard and Sigall (1989) postulated that women may experience conflict between their identity as women and their leadership roles. Men, on the other hand, would not be postulated to experience the same degree of conflict since leadership is consistent with stereotypically

appropriate roles for men. Given that sex-role identity is essentially an individual's self-concept in relation to society's views of appropriate behaviors for men and women, it may be helpful to explore the sex-role identities of students involved in leadership activities and to look for gender differences. Because the gender composition of the student organization may have an impact on a student leader's experience, it would also be important to investigate if there are differences in the sex-role identities of student leaders of single-sex groups as opposed to leaders of mixed-sex groups.

The present study used the Bem Sex-Role Inventory (1974) to measure sex-role identity. The review of the literature will focus primarily on studies involving this instrument.

The Bem Sex-Role Inventory

In 1974 Sandra Lipsitz Bem published the Bem Sex-Role Inventory (BSRI) as an instrument designed to conduct empirical research on sex-roles and the concept of psychological androgyny. Until her instrument was developed, the concepts of masculinity and femininity were generally thought to be two opposite ends of the same continuum, indicating that an individual could be defined as either masculine or feminine but not both (Bem, 1974; Bieger, 1985). Bem (1974) suggested that the concepts masculinity and femininity might be dimensions which were

independent of each other, thereby allowing for individuals to be defined as having combinations of both masculinity and femininity. An individual who integrated both masculine and feminine traits into his/her self-concept was defined as being psychologically androgynous. Individuals who had predominantly masculine traits were defined as masculine, and likewise, individuals who possessed predominantly feminine traits were defined as feminine. These definitions were assigned without regard to the individual's biological gender and were referred to as an individual's sex-role identity.

Originally, Bem (1974) proposed that androgynous individuals were more flexible and potentially better adjusted than masculine and feminine individuals. Individuals with traditional sex-roles, that is, those whose genders corresponded with their sex-role, were thought to be concerned with keeping their behavior in accord with internalized definitions of society's prescriptions for appropriate behavior for their sex. In order to maintain appropriate behavior, it was theorized, one would have to suppress any behavior which might be considered undesirable for one's sex by society. This reasoning led to the assumption that by keeping their actions appropriate to their sex, masculine and feminine individuals would have a limited repertoire of behaviors from which to choose in all situations. Androgynous

individuals, by virtue of having a wider repertoire of behaviors from which to choose, i.e., both masculine and feminine behaviors, would be more flexible and adaptable.

Inherent in Bem's logic were the definitions of masculine and feminine traits. Masculine traits, or those which society views as stereotypically masculine, were predominantly instrumental in nature -- ambitious, self-reliant, independent, assertive. Feminine traits, on the other hand, were primarily expressive in nature -- affectionate, gentle, understanding, sensitive to the needs of others. While both masculine and feminine traits (or instrumental and expressive traits) were regarded as positive attributes by society, Bem (1974) believed that truly healthy human functioning demanded an integration of both instrumental and expressive traits in one personality -- the androgynous personality. The androgynous person could draw on both kinds of behaviors and respond appropriately, depending on the demands of the situation.

Bem and her associates designed several experiments using her instrument to see whether or not sex-typed individuals were, indeed, more restricted in their behavior than androgynous individuals (Bem & Lenny, 1976; Bem, Martyna, & Watson, 1976). In an experiment which asked participants of both sexes to choose between tasks which were masculine, feminine or neutral in nature, she found that sex-typed participants chose the task which

corresponded to their gender significantly more often than the opposite-sex task, despite the fact that the opposite sex-typed tasks had higher rewards attached to them. Androgynous and sex-reversed participants (those individuals with a sex-role identity opposite to their gender) were significantly less stereotyped in their choices. Participants were then photographed performing tasks which were masculine, feminine and neutral in nature and asked to rate their comfort level with the task. Sex-typed individuals were significantly more uncomfortable and reported more negative feelings about themselves when performing cross-sex activities than were androgynous or cross-sexed individuals (Bem & Lenny, 1976).

In a series of studies involving the two dimensions of instrumentality and expressiveness, Bem (1975) and her associates attempted to explore further the hypothesis that androgynous individuals would perform well on both "masculine" and "feminine" tasks, while sex-typed individuals would perform well only on those tasks which they considered congruent with their gender. In an experiment on independence and conformity, participants were asked to rate how humorous they found a particular set of cartoons while listening to the opinions of other "participants" (actually a tape being played which gave false answers to the humor judgments). Bem (1975) found

that both the masculine and androgynous participants were significantly more independent in their ratings than the feminine participants, regardless of biological gender.

To test the expressive dimension Bem et al. (1976) designed a series of experiments intended to elicit emotional responsiveness to three different conditions: a kitten, a human baby and a fellow student expressing lonely, however, not dependent feelings. Both the feminine and androgynous men were significantly more responsive in all three conditions than were masculine men. Bem and her associates were surprised, however, by the results for the women. Rather than responding to all three conditions, feminine women were lower in their response rate to the kitten and showed no more responsiveness to the baby than the androgynous and masculine women. However, when responding to the lonely student they were significantly more responsive than any of the other groups. Masculine males were the least responsive, while androgynous and cross-sex participants fell in the middle. Bem et al. (1976) suggested that the conditions of the lonely student situation were such that participants played a passive role, while with the kitten and the baby, participants were forced to play a more active role. They hypothesized that feminine women are so restricted in their behavior that they are inhibited in expressing even gender congruent behavior in situations

"where the 'appropriate' behavior is left ambiguous or unspecified" (Bem, 1987, p. 221).

Bem (1981) used these studies to confirm her hypothesis that "non-androgynous individuals restrict their behavior in accordance with cultural definitions of desirable behavior for women and men significantly more often than do androgynous individuals" (p.16). She also used these results to support her contention that the BSRI identifies the sex-role groups it purports to identify.

Methodological and Psychometric

Critiques of the BSRI

Bem's (1974) work opened the door for much work and related research on the concept of androgyny and sex-roles. By the late 1970's and early 1980's, her instrument and constructs had incurred much theoretical and methodological criticism. Of particular interest is the work relating androgyny to psychological adjustment and flexibility. While some researchers supported Bem's initial belief that androgyny is related to better adjustment than masculinity or femininity, (Wiggins & Holzmuller, 1981), others disagreed. Many researchers found, in fact, that both androgynous and masculine sex-role identities predicted better adjustment than did feminine or undifferentiated sex-role identities, and that androgyny was associated with self-esteem or better adjustment only for women. This led them to conclude that

the masculine qualities associated with both masculine and androgynous sex-roles were responsible for the better adjustment of these individuals (Adams & Sherer, 1982; Deutsch & Gilbert, 1976; Jones, Chernovetz & Hansson, 1978; Kelly & Worell, 1977; Silvern & Ryan, 1979).

If, in fact, masculine traits are those responsible for better adjustment, what does this say about those individuals who are high in feminine characteristics but low in masculine traits? Deutsch and Gilbert (1976) suggested that this is the case with the average college undergraduate woman who finds herself in a double bind. On the one hand, she believes she should be more androgynous, i. e., have more of the instrumental, assertive characteristics valued by society. On the other hand, she is concerned that if she chooses to become more androgynous, she will be less desirable to men. Deutsch and Gilbert believed that women's conflict on this variable clearly predicted poorer adjustment for women than for men, especially since the majority of men (who would score either masculine or androgynous) do not experience a similar conflict between their self-concept and role.

A few researchers have not found that the feminine sex-role is associated with poorer adjustment in women. Orlofsky and Windle (1978) found that feminine-typed women appeared as well adjusted as androgynous women.

They did not find this surprising given the strong cultural messages women and men receive about appropriate sex-role behavior. They suggested that conformity to society's standards produces a subjective sense of well-being in these women; however, it also contributes to lower self-esteem. Kleinke and Hinrichs (1983) agreed, suggesting that feminine sex-typing may be helpful to college women in adapting to peer pressures and the demands of college social life. They suggested further that the value to the individual of the various sex-role identities may vary depending upon the demands of the situation and environment.

Serious questions have also been raised regarding the psychometric properties of the BSRI. Several studies in the late 1970's questioned the way in which the instrument was developed, and suggested that the constructs which Bem (1974) intended to measure might not be measured by her instrument. One study argued, for example, that the two constructs measured by the BSRI are dominance and nurturance (Wiggins & Holzmueller, 1981). Pedhazur and Tetenbaum (1979), in a scathing critique of the empirical construction of the instrument, suggested that the BSRI is atheoretical and asked "how can one assess the validity of a measure when the construct it is supposed to be measuring is undefined?" (p. 1012). Others criticized the notion of the orthogonality of the two dimensions,

masculinity and femininity, suggesting that they are not independent. Factor analytic studies suggested that the BSRI has four factors rather than Bem's three (masculine, feminine and neutral) (Gaudreau, 1977; Moreland, Gulanick & Montague, 1978; Pedhazur & Tetenbaum, 1979). Bem's strategy for selecting items has also been criticized by Pedhazur and Tetenbaum (1979), who stated that while the masculine traits used were relatively high in desirability, some of the feminine traits used were lower in desirability. (This criticism is mitigated by using the short form of the BSRI because the low desirability feminine traits were left out). Pedhazur and Tetenbaum (1979) also argued that Bem treated nonindependent t tests as if they were independent, and thus ran "the risk of overlooking the distinction between statistically significant and substantively meaningful findings" (p.998).

Sex-role Identity of College Student Leaders

Despite the criticism of Bem's theory and instrument, studies stemming from Bem's research on sex roles are many and various. Many studies using Bem's instrument and focusing on college students have looked at relationships between sex-roles and other constructs such as self-esteem, fear of success, achievement, attitudes toward women, and choice of major and occupation. Very few, however, have looked at leadership as a dimension.

One study by Astley and Downey (1980) looked at sex-role identity and ratings of leadership potential in college students. They found that while past leadership experience correlated with all three sex-role identities -- masculine, femininine and androgynous, it correlated most highly with androgyny (.53) followed closely by masculinity (.48) and less highly with femininity (.27). When comparing sex-role identity with several different forms of leadership potential ratings, they discovered that the masculinity score was positively correlated with a self-rating of leadership potential for both men and women, i.e., if individuals had masculine sex-roles, they were likely to rate themselves as having leadership potential. Interestingly enough, there were no significant relationships between the masculine score and others' ratings of leadership potential, including ratings done by group leader or peers.

Astley and Downey (1980) also found differences in the relationships between sex-role identity and leadership potential ratings for men and women. For women, all three sex-role identity categories were significantly related to evaluations by male (but not female) peers. The feminine sex-role identity was also related to evaluations of leadership potential by female peers and the group's leader. Androgyny in women was related only to evaluations of leadership potential by the group's leader.

For men, none of the sex-role identity categories was related to evaluations of leadership potential by others, either peer or leader.

Astley and Downey (1980) interpreted their results to give some support to the argument that androgynous individuals would be the most effective leaders, although the masculine characteristics were the "principal predictive characteristics" (p. 425). They further suggested that masculine individuals rate themselves higher in leadership because they have a higher self-concept than others. Finally, they suggested that androgynous individuals who have previous leadership experience are rated higher in leadership potential by themselves, by leaders and in a limited way, by their peers.

Two other studies (Inderlied & Powell, 1979; Korabik, 1982) examined relationships between sex-role identity and style of leadership in college students. Both studies defined leadership style as consisting of one or both of two orientations: an initiating structure (instrumental) approach, a consideration (expressive) approach, or a combination of the two. Because these definitions are so similar to the constructs underlying Bem's sex-roles the studies asked if there would be some correspondence between leadership style and sex-role identity. The researchers were also interested to see if sex-role

identity predicted leadership style better than biological sex. Inderlied and Powell (1979) found that study participants preferred an ideal leader who is masculine yet uses a "team" leadership style, that is, a combination of structuring and consideration leadership behaviors. They found a relationship only between participants' masculinity and initiating structure scores. There was little support for the existence of a relationship between femininity and consideration. Korabik's (1982) results were different. She found that an initiating structure style of leadership was positively related to masculinity, and that a consideration leadership style was positively correlated with femininity. Androgyny was positively correlated with both structure and consideration styles of leadership. Korabik's study also suggested that sex-role orientation was a better predictor of leadership style than was biological sex.

Other studies which may illuminate how sex roles affect students' choice of activity are those which relate sex-role identity to their choice of major and career. Stockton, Berry, Shepson and Utz (1980) indicated that for men, having a masculine or feminine sex-role did little to differentiate the number of men in male and female dominated majors; however, for women, having a masculine sex-role correlated with a higher proportion of females in male dominated majors. Also, having an androgynous or

feminine sex-role for men did not mean that men chose female dominated majors; however, having an androgynous sex-role as a woman did mean that one was almost as likely to select a male dominated as a female dominated major. In other words, androgynous women chose from the full range of options, rather than limiting their choices because of gender prohibitions.

Perhaps having a masculine or androgynous sex-role would increase the probability of women being involved in leadership roles (a stereotypically masculine activity) as well. Yanico, Hardin and McLaughlin (1987) reported that feminine-typed women who elected an engineering major were significantly less satisfied with and tended to be less certain of their choice of major than either masculine or androgynous women. They suggested that the feminine women felt a conflict between their sex-role identity and the nature of the major they chose.

This conflict may be similar to the conflict Leonard and Sigall (1989) postulated women student leaders experience with their leadership roles. They suggested that many women student leaders struggle with their roles, needing to meet the demands of the leadership role on the one hand, and achieve acceptance as a woman on the other.

If men and women are found to differ in their sex-role identity, it may mean that women experience leadership differently than do men. Since sex-role

identity as measured by the BSRI is an individual's self-image regarding his or her degree of conformity to society's stereotypical sex-role standards, sex-role identity may be helpful in exploring the conflict women may feel.

Summary

This researcher found no studies on the sex-role identities of college students engaged in leadership activities. Given Korabik's (1982) finding that sex-role identity is a better predictor of leadership style than is biological sex, it would seem interesting to explore the sex-role identities of this population in relation to gender and gender composition of student leaders' primary organization. Since leadership is generally thought of as a activity considered appropriate for the masculine sex-role, it seems reasonable to assume that more college men than women would participate in leadership roles, particularly in male or coeducational organizations. It also follows that those women who have sought out leadership roles will be more likely to have masculine or androgynous sex-role identities. Feminine women who have chosen leadership roles may be more likely to be leaders in same-sex groups. The purpose of this study was to provide data about these hypotheses.

Achieving Styles of College Students

In 1953, McClelland, Atkinson, Clark and Lowell put forth a theory of achievement motivation which focused on the motive or need for achievement. This ground-breaking work set the stage for much of the achievement related research performed over the next two decades. Their work relied in part on Murray's (1938) theory of a taxonomy of human needs which motivated people to act, and which used a projective test to tap these needs since they were theorized to be unconscious. McClelland et al. (1953) suggested that the motive to achieve was characterized by a concern with achieving standards of excellence and competing with them in achieving a goal. This concern was learned very early in life, provided that an individual's achievement directed behavior met with positive consequences, that is, if the individual was successful in meeting the goal. If so, the individual then learned a goal orientation characterized by striving for success against a standard of excellence. This goal orientation became a stable personality characteristic which could be aroused by appropriate environmental cues (Sutherland & Veroff, 1985). Thus, achievement motivation was a learned drive toward standards of excellence which could be aroused by cues from the environment.

Many studies were performed on this model in which researchers attempted to engage an individual's need for

achievement by creating a state of arousal using competitive tasks. Most of the research at this time was performed on male study participants. While their attempts to engage male participants' achievement need were successful, they were unable to engage women's need for achievement using the same methods (Lipman-Blumen, Handley-Isakson & Leavitt, 1983; Sutherland & Veroff, 1985). Little light was shed on women's achievement needs, therefore, until Horner's (1968) popular work on women and the fear of success. Recognizing that McClelland's et al. (1953) theory seemed to explain men's behavior but not women's, Horner suggested that some people, particularly women, were characterized by a motive to avoid success. This motive would be aroused when an individual believed that to achieve would mean to risk affiliative success (Horner, 1968).

There has been much controversy surrounding Horner's motive to avoid success (Lipman-Blumen et al., 1983; Sutherland & Veroff, 1985). Subsequent researchers have been unable to replicate her results to the same degree, and her theory has been called into serious question. Nonetheless, her work brought the attention of researchers back to the question of achievement in women, and suggested that the achievement motive could be a more complex problem for women than for men.

Many researchers then and since have postulated other

dimensions of the achievement problem for women including the possibility that women might have differential expectations for success when confronted by an achievement situation; that women may be motivated by social approval and affiliative needs rather than the need for excellence or mastery (Hoffman, 1972); or that men and women do not differ in the factors which motivate them, but they do differ in the degree to which those factors are motivating to them (Spence & Helmreich, 1983).

The Lipman-Blumen-Leavitt Achieving Styles Model

The Lipman-Blumen-Leavitt model of achieving styles (Lipman-Blumen & Leavitt, 1976) differs from that of traditional achievement research in that it does not focus on the motive for achievement but rather on how an individual achieves. The model began with Lipman-Blumen's doctoral dissertation relating "mode of achievement satisfaction to sex-role ideology and educational aspirations among highly-educated married women" (Lipman-Blumen, 1972). In it she postulated a continuum of active to passive modes of achievement. The active end of the continuum involved achieving actively and directly through one's own efforts. The passive end defined a mode of achieving which satisfied the achievement outcome by identifying with and achieving vicariously through another's achievements. Lipman-Blumen believed that her conceptualization of vicarious achievement could provide

an explanation for what Horner described as behavior which indicated a motive to avoid success.

With the help of several years of empirical research, Lipman-Blumen et al. (1983) reconceptualized the early model and replaced it with its current design -- nine styles of achieving falling within three major domains conceptualized as a circular pattern rather than a linear continuum. The circular pattern is intended to show the closeness of the relationship of one style to another.

The three major domains of achieving, according to the model, are direct styles, instrumental styles and relational styles. Direct styles of achieving are characterized by taking action directly or through controlling the actions of others in order to get a particular task accomplished. Instrumental styles of achieving involve a two step process whereby the achiever uses either a characteristic of his or her person or previous achievement, or other people and their achievements, in the accomplishment of a particular goal. Relational styles of achieving focus on achieving through contributing to relationships.

Several assumptions are made by the model:

1. There are three major needs -- physical, social and egoistic needs. Physical needs are assumed to be innate, beginning with birth; social and egoistic needs are learned early on as the individual attempts to get his or

her physical needs met by others. If the individual has difficulty in getting these needs met, he or she then learns to prefer either a direct style of achieving or an instrumental style of achieving. If the individual finds little difficulty in getting his or her needs met through others, he or she will generally prefer a relational style of achieving.

2. Individuals prefer some styles over others and may use one or more characteristic style(s) to achieve goals in a variety of situations, sometimes without considering whether the style characteristic of them is an appropriate approach for the situation.

3. The concepts of flexibility, range and intensity are several different dimensions of achieving styles and will affect how an individual acts.

4. Some individuals may have access to a wide range of achieving styles and therefore choose the most appropriate style for the situation. Others do not have such a range, and use one or two styles for all situations, even those for which the preferred style is not appropriate.

5. None of the achieving style domains or the substyles are mutually exclusive or independent. However, some combinations of the styles are more similar to each other than others, with those located closely together on a circular pattern as more similar than those located further apart.

6. While preferred styles are learned early in life, individuals may learn additional styles later in life.

7. No one style is any better or has more intrinsic value than any other style. However, some styles may be more appropriate when matched to specific situations

(Lipman-Blumen, Leavitt, Patterson, Bies & Handley-Isaksen, 1980, pp. 147-148).

The Nine Achieving Styles

Briefly, the nine styles are described below:

The Direct Domain

Intrinsic Direct: Individuals demonstrating this style enjoy acting directly upon a task for the sheer satisfaction the task offers. They use internal standards of excellence to measure their success.

Competitive Direct: Individuals with this style act directly upon a task but differ from those using an intrinsic direct style by deriving a sense of satisfaction from competing with others. It is not enough to do the task well, instead one must do better than others to feel a "thrill" of satisfaction.

Power Direct: Individuals with this style accomplish tasks through the direction and delegation of tasks to others. They continue to maintain firm control over both the goals needing to be accomplished and the means by which they will be achieved. They seek out situations which they believe need organizing and leadership and feel

satisfaction by controlling the work necessary to get the task done.

The Instrumental Domain

Personal Instrumental: Individuals with this style use attributes of their personal self (background, position, status, talents, skills, etc.) or prior achievements to accomplish additional achievements. Personal attributes or prior accomplishments are valued primarily for their usefulness in achieving further accomplishments.

Social Instrumental: Individuals using this style regard the relationships they are able to make as the way to accomplish further goals. They generally are confident of their ability to make acquaintanceships easily and may have vast social networks. They appreciate their relationships primarily for their use in achieving. These individuals are generally cognizant of using this style; however, their use of relationships to accomplish their goal may be hidden from other individuals rather than being overt. At other times, especially when dealing with another social instrumentalist, the use of the relationship may be an overt agreement.

Reliant Instrumental: Individuals using this style are, at least in American culture, generally less confident of their own efficacy to achieve, and therefore, achieve through the help of others. They rely on others

to accomplish the task, however, they generally set their own goals.

The Relational Domain

Collaborative Relational: Individuals using this style value teamwork above all else. They participate with others equally to achieve a task, and expect to share equally in the credit from accomplishing the task as well. They derive their satisfaction from being actively involved as part of the team, and accept the group's goal as their own.

Contributory Relational: Individuals using this style achieve by working actively toward the accomplishments of others with whom they identify. While they help others achieve the goals the others have set, they are able to distinguish between their accomplishments and those of the achiever. They do not usurp the achiever's victory; however, they do share in the pleasure of the success.

Vicarious Relational: Individuals using this style derive satisfaction from the achievements of others with whom they identify closely. Because of their close identification, they are able to feel satisfaction through the achiever's accomplishments as though the accomplishments were their own.

Gender Differences with the Achieving
Styles Inventory

Possible gender differences in the styles chosen have interested Lipman-Blumen from the beginning of her research. Her work is unusual in that from its original conceptualization it focused on both women's and men's approaches to achieving. The research performed on the concept and instrument reflects this, using both women and men as study participants.

In reporting her research, Lipman-Blumen et al. (1983) used data collected from several separate studies in which she explored the question of gender differences in achieving styles. They combined data from studies of senior male executives and their wives, upper male managers, middle male managers, technical male managers, male staff managers, career women (generally women in traditional female careers), women managers and homemakers. They also used data from high school students and college students. In the sense that their subject pool was not randomly selected across the general population, it cannot be considered generalizable. Nonetheless, it does point to some general differences along gender and age lines.

They hypothesized that because of early sex-role socialization, women are more likely to use relational and instrumental styles of achieving (while men would be more

likely to use the direct styles of achieving, particularly competitive direct and power direct). They also hypothesized that because American culture has such a strong work ethic, both genders would score highly on the intrinsic direct style.

Looking at their population overall, Lipman-Blumen et al. (1983) found differences which reflect sex-role stereotyping. Gender differences were more pronounced in the older group (thirty years old and older) yet were sustained in the younger group (less than thirty) as well. For those thirty and over, women showed significantly higher contributory and vicarious relational scores than did men, while men scored higher than women on all the direct scales. Like their seniors, younger men were separated from younger women by their higher competitive direct scores. They were also separated by higher social instrumental and lower vicarious relational scores.

While the differences in gender may generally follow sex-role stereotypes, they seem to be confounded by differences in age as shown above, and occupation. As Lipman-Blumen et al. (1983) have pointed out, a study by Awad (1980) found no significant differences across gender for MBA students. Moreover, in studies of women managers, Lipman-Blumen et al. (1983) found that women managers scored similarly to male managers with the exception of the competitive and power direct scales -- the men had

significantly higher means on these scales.

In a study of student affairs professionals and students participating in student activities, Beardsley, Stewart and Wilmes (1987) found significant gender differences in the Competitive Direct and Power Direct styles, the Social Instrumental style and the Contributory Relational style. They also found significant differences in the Direct and Instrumental Domains. Using the ASI to describe the student sample, they found students who were "primarily task oriented...feel comfortable in aspects of power to achieve, yet possess a secondary filter of supportiveness for the goals and achievements of others" (p. 417).

Summary

The limited literature available on students' achieving styles indicates that there may be some differences in the achieving styles of men and women students participating in activities, particularly in the Competitive Direct and Power Direct styles, the Social Instrumental style and the Contributory Relational style. Additional research on the population of students involved in leadership activities using achieving styles will add to student affairs professionals' knowledge of potential gender differences in this population. Given changing sex-role socialization, it may be that there will be fewer differences between male and female student leaders in

their choices of achieving styles. It may also be that students who choose leadership positions in college will have similar achieving styles. The present study explored these gender differences for student leaders.

The Career Aspirations of Men and Women College Students

Much has been written on the career development of college students. As with achievement, more seems to be known about men's career development than women's. With the dramatic increase of women in the work force over the last twenty years, however, researchers have shown more interest in women's career development and decision-making. Some researchers have hypothesized that college women's career development is different from that of college men because of women's sex-role socialization (Fitzgerald & Crites, 1980). In their extensive review of the literature on women's career psychology, Betz and Fitzgerald (1987) reported that researchers have looked at relationships between women's career development and their sex-role identity, attitudes toward work roles for women, self-esteem, performance expectations, and women's possible fear of success or failure. Several of these variables seem to play a part in women's career decision-making. With the reality of women currently constituting over half of the work force, and with both men's and women's attitudes toward working women changing (Phillips & Johnston, 1985), it seems important to look at the career aspirations of women and men student leaders at this point in time.

Career aspirations for college students, or what

college students intend to do in their futures, can be measured in several different ways. A review of the literature shows that researchers have investigated career aspirations by looking at the level and nature (in relation to one's gender) of self-reported occupational choices, the nature (in relation to one's gender) of choice of college major, the level and timing of plans for post-graduate study, and plans for a full-time, continuous or interrupted career after graduation.

Several studies over the last two decades give attention to the level of career aspirations for college students. Not surprisingly, women's aspirations have lagged behind those of men's on several indicators. With the rise of the women's movement in the late 1960's and early 1970's, women's career aspirations and plans began to increase dramatically, while men's stayed stable (Wilson & Lunneborg, 1982; Zuckerman, 1981). As Zuckerman (1981) stated, "The men continued to aspire to higher education goals, (and) to be more likely to aspire to male-dominated careers" (p. 1122).

Level and Nature of Occupational Choice

One measure of career aspiration is students' self report of careers they are planning. Astin, Green and Korn's (1987) study of trends of American freshmen college students from 1966 through 1985 suggested that women students have shifted away from aspiring to the

traditional career fields of elementary and secondary school teaching, nursing, social work and homemaking, and toward such nontraditional fields for women as business, law, medicine, science and engineering. Zuckerman (1980) reported that 51% of the women in her study showed interest in male-dominated career fields; Kingdon and Sedlacek (1982) reported that 42% of their freshman women sample aspired to careers nontraditional for women, while an additional 22% indicated interest in gender neutral careers.

Another indicator which is used to shed light on career aspirations is the proportion of students planning to work in full-time careers. While almost all male college students indicate that they plan on working full-time, an increasing proportion of women college students are indicating that they also plan full-time work after college. Zuckerman (1981) reported that 72% of the college women in her sample preferred full-time careers. Data from the Brown study (Leland, 1980) indicated that 68% of its women students preferred a full-time career in ten to fifteen years, and Harmon (1981) reported that 47% of the women participants in her study planned to work most of their lives despite marriage and family responsibilities.

Unfortunately, these findings on the increasing proportions of women aspiring to non-traditional careers

and of women considering full-time careers mask the current reality of the disparity between men's and women's career aspirations. While Leland (1980), in the Brown study, found that students of both genders were interested in fields nontraditional for women, she also found that more men preferred traditionally male-dominated fields, and more women preferred traditionally female-dominated fields. Thus, in the Brown study, occupational aspirations still tended to follow traditional gender lines.

Kingdon and Sedlacek's (1982) research on the career aspirations of women students presents some puzzling findings. In a study of freshman students, 42% of the women indicated that they were considering careers in nontraditional fields, while only 14% indicated that they would prefer careers traditional to women. However, the researchers point to another study of graduates from the same university which found that upon graduation women actually entered careers which were more traditional for women (Knight, Sedlacek & Bachhuber, 1983). In a replication of the Knight et al. (1983) study four years later, Martinez, Sedlacek & Bachhuber (1985) found again that despite their stated wishes as freshman to enter nontraditional careers, women were found entering traditional careers in education, the social sciences, and clerical fields.

Harmon's (1981) findings concur. Her longitudinal study of women entering college in 1968 shows that while many women considered a wide range of careers in their late teens, they actually chose careers in areas traditional for women. She also found that the career choices women gave as college freshmen in 1968 were not accurate indicators of what the women were doing seven years later.

Choice of Undergraduate Major

Another indicator of career aspiration is the choice of students' undergraduate major, which assumes that undergraduate major and career aspiration are related. There are conflicting data on this dimension. Data from the Brown study (Leland, 1980) indicates that, like their career aspirations, choices of major for men and women students followed traditional gender lines. Women were more likely to major in the social and behavioral sciences, history/civics and English language, and men were more often found in engineering or physical sciences, mathematics or biology/medicine. This is true of the findings of three additional studies (Randour, Strasburg, & Lipman-Blumen, 1982; Subcommittee on Undergraduate Women's Education, 1987; Zuckerman, 1981).

Other studies, however, emphasize the increasing numbers of women who are broadening their options and choosing nontraditional majors. Wilson and Lunneborg

(1982) reported that 40% of their women participants elected a nontraditional major, and although Arnold and Denny (1985) discussed lowered career aspirations for their sample as a whole, 73% of their women study participants chose to study in male-dominated or equal-gender representation majors.

Plans for Graduate Study

Educational aspirations, or plans for graduate study, is another indicator of career aspiration used in the literature. Of the 50% of the students in the Brown study interested in earning a doctoral degree, more were men than women (Leland, 1980). More women than men planned on completing a master's degree, and a very small percentage of both genders planned to end their education with the bachelor's degree. Zuckerman (1981) reported that among the women attending a four-year coed university, 55% intended to get a master's degree compared with 33% of the men, while 18% of the women planned on a doctoral or professional degree, compared with 39% of the men. Interestingly, among women respondents at a seven sisters' college which was formerly a women's college but is now coeducational, a much larger percentage of women planned to pursue doctoral work. Forty-seven percent planned doctoral or professional degrees, while 45% planned master's degrees. No data were presented on men at that institution (Zuckerman, 1980).

The Brown study (Leland, 1980) also indicated that a larger proportion of men (43%) than women (35%) planned on beginning their graduate studies immediately after completing their bachelor's degree. Data from the University of Maryland showed similar differences in the proportion of men (26.4%) compared to women (20.5%) who began their graduate studies within a year after graduation from college (Subcommittee on Undergraduate Women's Education, 1987). Of the women attending a seven sisters' college, however, 70% of the large proportion of women students planning on graduate study expected to begin their post-graduate study within one year of graduating from college (Zuckerman, 1980).

Changes in Career Aspirations during College

Several studies were either longitudinal in nature or surveyed several class levels to see whether or not change occurred over the four years men and women were in college. The Brown Report collected data from all four class levels and so made inferences about differences which seemed to have occurred over time. Leland (1980) reported that "from a relatively even distribution of the ten career clusters between men and women, each successive class shows trends toward more traditional sex-typed preferences" (p.113). Leland suggested that while women may start out with nontraditional career interests, they become more traditional in their aspirations as they

progress through college. By their senior year they have weaker commitments to male-dominated career fields and commit instead to fields more traditional for women.

Kingdon and Sedlacek (1982) suggested that women may have nontraditional career goals as freshman students, yet when they enter the workforce they choose traditional jobs. Blaska (1978) postulated that women's "early choices are not reliably related to post college vocational behavior" (p. 304). She suggested that women may experience a conflict between career and marriage which does not surface until the women actually must make a career decision -- more often in the later years of college or at graduation. This would have implications for the reliability of much data that uses only the career aspirations of freshman women to ascertain women's career commitment.

Data from the Brown study (Leland, 1980) also suggested that women are more likely than men to change their career plans during college. Forty-four percent of the women compared with 38% of the men indicated that they had changed their career plans. This suggests that women's initial career plans are not as firm as those of men or that other variables come into play during the college years which affect women's career decisions and not men's.

Plans for Interrupted or Continuous Careers

Arnold and Denny (1985) conducted a longitudinal study of high school valedictorians. Even though the majority of women in this study chose to study in male-dominated or gender-neutral majors, Arnold and Denny still found that the women tended to lower their career aspirations during college. Their most dramatic indication of this phenomenon occurred during the sophomore year when, despite equally outstanding academic achievement on the part of the women valedictorians, six of the eight women interested in medical school changed their majors to other fields which they perceived as less demanding on their potential future roles as wives and mothers.

In exploring this phenomenon further, Arnold and Denny (1985) found that despite the traditional or non-traditional nature of the women's individual career goals, 30 out of 45 women in the study planned to interrupt their careers or to work part-time while raising children. Arnold and Denny (1985) concluded from this finding that the women in their study lowered their occupational aspirations not by choosing female-dominated professions but by lowering their plans for full-time continuous participation in the workforce.

Two other studies found similar proportions of women planning to interrupt their careers for child-rearing and

family responsibilities. Zuckerman (1981) reported that while 72% of the women in her sample preferred full-time careers, usually in addition to marriage and family, only 29% would prefer to both have children and work continuously, without taking time off for child-rearing. Phillips and Johnston (1985) indicated that over two-thirds of the women in their sample preferred an equal emphasis on both career and family. Yet, when asked about their level of preferred career involvement, nearly two-thirds of the women expected to interrupt their career to have children. Phillips and Johnston (1985) expressed surprise at this finding, and suggested that the women seem to be "selecting a career option inconsistent with their stated intention" (p. 337), and recommended that further research be devoted to the costs and benefits of interrupting a career.

Several studies emphasized that women now plan on having both a career and a marriage and family (Blaska, 1978; Phillips & Johnston, 1985; Zuckerman, 1980, 1981). Knight et al. (1983) suggested that women's career decisions are related to a focus on marriage, and speculated that "it may be that the primary focus of college women is on whether to have a career and a marriage, rather than on the choice of a career and appropriate planning for it" (p. 155).

In contrast to Arnold and Denny's (1985) study on

high school valedictorians, Zuckerman (1980) found that women students attending a seven sisters' college had what she termed "extremely unrealistic expectations" (p. 318), that is, combining graduate study at the doctoral or professional level immediately after graduation, early marriage and family, and challenging careers in nontraditional fields. She suggested that "as women continue their education, they maintain their preferences for nontraditional careers, but lower their expectations in terms of careers, degrees, and immediacy of graduate school plans, marriage, and motherhood" (p. 318). She speculated further that these changes are caused by women's increased maturity and pragmatism, or possibly by poor career counseling. Given that these women were attending college at an institution which formerly had been a women's college, it may also be that attending college at an institution focusing on women encouraged women to maintain their high expectations. Data collected by Tidball (1980) would suggest that this might be true of women attending women's colleges. Since the Brown study (Leland, 1980) included several women's colleges and did not note differences in career choices between those women and others attending coed colleges, the women's original high expectations in Zuckerman's (1980) study remain unexplained.

Career Aspirations of College Student Leaders

There are few data on the career aspirations of student leaders. A study of former student leaders indicates that the majority of them (64%) believed that their leadership experience had influenced their choice of occupation, but did not say how this occurred. No gender differences were indicated (Schuh & Laverty, 1983). A second study which looked at long-term outcomes of participation in student government suggested only that "students who were satisfied with their jobs had experienced a high level of student activity in college" (Downey et al. 1984, p. 244). Because the limited literature on student leaders does not indicate whether there will be differences by gender or group make-up in career aspirations for student leaders, one must rely on the data generated on college students in general.

Summary

While data from studies of freshman aspirations show increasing interest on the part of women toward nontraditional careers, other studies which use data from several class levels including college seniors still show decreasing career aspirations for women over the four years. The most significant indicator of women's lowered career aspirations is the large number of women planning on interrupting their careers for marriage and family obligations. Other indicators include the smaller

proportion of women versus men planning on doctoral/professional level postgraduate study, the large proportion of women and men still in majors considered traditional for their gender, and the larger proportion of men than women who intend to pursue graduate studies within one year after graduation from college.

Career aspiration is measured using several different indicators including the level and nature (in relation to one's gender) of self-report career aspirations, whether one chooses a traditional or non-traditional major in relation to one's gender, plans for post-graduate study, and plans for a full-time, continuous or interrupted career after graduation.

Chapter Summary

As discussed in Chapter II, the literature shows only limited research on college student leaders. Given that this literature suggests that student leaders may differ in characteristics and traits from college students in general, a study of this population seems appropriate. Given also that the literature on leadership in general indicates that women and men experience leadership roles differently, it stands to reason that college students in leadership roles might also experience these roles differently along gender lines. Research in the field of small group research indicates that the gender makeup of the group also has an impact on the leadership experience for men and women (Bartol & Martin, 1986). Therefore, both gender of the student leader and gender composition of the leaders' group would seem to be important dimensions which may relate to student leaders' self-esteem, sex-role identities, achieving styles and career aspirations.

CHAPTER III: METHODOLOGY

Purpose of Study

It was the purpose of this study to investigate gender differences in the self-esteem, sex-role identity, achieving styles and career aspirations of presidents of student organizations. A second purpose was to investigate whether, on these same dimensions, presidents differ if they are involved primarily with a mixed-sex or single-sex student organization. Accordingly, male and female presidents of student organizations were administered a battery of instruments and a demographic questionnaire. The instruments included the LB-L Individual Achieving Styles Inventory (Lipman-Blumen, 1987), the Rosenberg Self-esteem Scale (Rosenberg, 1965), and the Bem Sex-role Inventory (Bem, 1981). The demographic questionnaire included items relating to students' career aspirations, information on students' leadership role(s) and the gender makeup on their student organization(s), as well as general demographic information. Students received the instruments in the mail and were asked to complete them.

Sample

Student leaders were defined as undergraduate students who were presidents of student organizations registered with the Office of Campus Activities at the

University of Maryland at College Park. All 313 presidents of student organizations were mailed a survey package. Of this number, 64 had moved or graduated with no forwarding address, 11 were graduate students, five returned unusable results, and two returned the questionnaire well after the data were analyzed. Of the total 231 remaining presidents, 164 (71%) returned usable questionnaires and instruments.

Demographic data on the study's participants showed that 95 (58%) were male and 69 (42%) were female. These proportions were similar to the proportions of men (53%) and women (47%) undergraduate students at the same institution. Table 1 shows the racial breakdown of the sample population with comparable proportions for the undergraduate student population at the same institution. Proportions were similar for each race or ethnic background with the exception of international students who were well represented in the sample population (8%) compared with their proportion (3%) in the undergraduate student population. Since international student organizations were registered with the Office of Campus Activities and would generally have presidents of a corresponding heritage, this slightly larger proportion is not surprising. The vast majority of study participants indicated that they were Caucasian/White Americans. All but 18 participants were American citizens.

Table 1

Racial/ethnic Groups of Presidents of Student Organizations Compared with Undergraduate Students at Same Institution

| Racial/ethnic Group | Presidents | | All Undergraduates |
|--------------------------------------|------------|----------|--------------------|
| | <u>n</u> | <u>%</u> | <u>%</u> |
| Afro-American/ Black American | 17 | 10 | 10 |
| American Indian or Alaskan Native | 2 | 1 | 0 |
| Caucasian/White American | 112 | 68 | 76 |
| Mexican-American | 2 | 1 | 3 |
| Asian-American | 16 | 10 | 9 |
| Other/Inter- national student | 13 | 8 | 3 |
| No response | 2 | 1 | |

Table 2

Age of Presidents

| Age | <u>n</u> | <u>%</u> |
|---------|----------|----------|
| 18 | 2 | 1 |
| 19 | 14 | 9 |
| 20 | 20 | 12 |
| 21 | 46 | 28 |
| 22 | 39 | 24 |
| 23 | 22 | 13 |
| 24 | 8 | 5 |
| 25 - 36 | 13 | 8 |

Table 3

Grade Point Averages of Presidents of Student Organizations

| GPA | <u>n</u> | <u>%</u> |
|-------------|----------|----------|
| 4.0 | 3 | 2 |
| 3.5 - 3.9 | 23 | 14 |
| 3.0 - 3.4 | 57 | 35 |
| 2.5 - 2.9 | 54 | 33 |
| 2.0 - 2.4 | 22 | 13 |
| 1.5 - 1.9 | 2 | 1 |
| No Response | 3 | 2 |

Table 4

Gender of Presidents by Gender Composition of Student Organization

| Gender Composition of Group | Male <u>n</u> = 90 | | Female <u>n</u> = 72 | |
|-----------------------------|-----------------------|----------|-------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Same sex | 35 | 39 | 32 | 44 |
| Mixed-sex | 51 | 57 | 33 | 46 |
| Opposite sex | 4 | 4 | 7 | 10 |

This sample appears slightly older than traditional college students. Table 2 shows an age range of 18 to 36 years, with 74% of the participants being 22 years of age or younger. The mean age for undergraduate students at the same institution was 22.3 years, very similar to the age of the sample population. The majority of students (68%) were seniors, 19% were juniors, 10% were sophomores, 1% were first year students, and 2% indicated they were "other". As Table 3 shows, students' grade point averages ranged widely also, from 1.6 to 4.0 on a 4.0 scale with a mean of 2.96.

Table 4 gives the gender of the student leaders by the gender composition of their student organization. Women student leaders were divided evenly between mixed-sex (46%) and single-sex (44%) groups, while more men were presidents of mixed-sex (57%) than single-sex (39%) groups. While results for presidents of opposite-sex groups were not used in the statistical analysis, it is interesting to note that 10% of the women were presidents of opposite-sex groups as compared to 4% of the men.

Procedure

Presidents of student organizations registered with the Office of Campus Activities were mailed a survey packet containing a letter of introduction, a questionnaire and two instruments to complete -- the Bem

Sex-role Inventory and the L-BL Achieving Styles Inventory. The questionnaire also included the Rosenberg Self-esteem Scale. Enclosed in the packet was a self-addressed, stamped envelope in which participants were to return the results. Appendix A contains the survey packet. The survey packet took participants approximately 20-35 minutes to complete.

The survey packets were mailed the first week in November, 1988. Three days after the initial mailing presidents were mailed a reminder postcard (Appendix B). A week after the initial mailing students were called on the telephone at home and encouraged to return the questionnaire. A telephone protocol was used for the calls (Appendix C). Another survey packet was also mailed to students who had lost their first packet. Presidents of student organizations who had not returned their questionnaires by the second week were called at home a week later, using the same telephone protocol. A final telephone call was made to students not returning their survey the week after Thanksgiving. If students were met by Campus Activities staff informally during the workday, they were also encouraged to return their surveys.

Instrumentation

Rosenberg Self-esteem Scale

The Rosenberg Self-esteem Scale (Rosenberg, 1965) is

a ten-item Likert scale measuring self-esteem. Each item reflects a favorable or unfavorable attitude toward oneself. Individuals answer each item using a six point scale ranging from strongly disagree (1) to strongly agree (6) to indicate how they view themselves. The scale was intended to be unidimensional, was designed for ease and speed of administration, and was originally used on a sample of high school juniors and seniors.

Rosenberg (1965) stated that high self-esteem as indicated by the Self-esteem Scale means that an individual believes that he or she is "good enough", and that "the individual respects himself [or herself], considers himself [or herself] worthy; he [or she] does not necessarily consider himself [or herself] better than others, but he [or she] definitely does not consider himself [or herself] worse; he [or she] does not feel that he [or she] is the ultimate in perfection but, on the contrary, recognizes his [or her] limitations and expects to grow and improve" (Rosenberg, 1965, p. 31). Robinson and Shaver (1973) suggested that the scale measures the self acceptance aspect of self-esteem.

The Rosenberg Self-esteem Scale has high reliability. Silber and Tippet (1965) found a test-retest correlation over a two-week period of .85. Rosenberg (1965) reported a reproducibility coefficient of .92.

With regard to validity, Silber and Tippet (1965)

found convergent validity with several other measures to range from .56 to .83. Robinson and Shaver (1973) reported that the scale correlated .59 with Coopersmith's Self-esteem Inventory (Coopersmith, 1967).

Rosenberg (1965) reported that predictive validity was found with the Rosenberg Self-esteem scale and other constructs which are typically related to self-esteem such as depression, physiological indicators of neurosis, and peer-group reputation.

Bem Sex-Role Inventory

The Bem Sex-Role Inventory (BSRI) (Bem, 1981) is intended to categorize individuals into one of three sex-role classifications: masculine, feminine or androgynous. The long form of the BSRI consists of 60 personality characteristics, mostly in adjective form. Twenty of the items have been defined by Bem (1974) as stereotypically masculine in nature, 20 as stereotypically feminine in nature, and 20 are neutral, filler items. Respondents indicate on a seven-point Likert scale how well each of the characteristics describes them. The scale ranges from "Never or almost never true" to "Always or almost always true". The short form of the BSRI (Bem, 1981), which is the form used in this study, consists of 30 items from the original BSRI, selected through factor analyses to maximize the internal consistency of the Masculine and Feminine scales and to improve the

orthogonality between them. The feminine items which had low social desirability were dropped, several masculine items which had low item-total correlations were discarded, the terms "masculine" and "feminine" were left off (both terms were sources of much criticism from other researchers), and 10 filler or neutral items were not included on the short form. According to several reviewers, the short form, therefore, is a psychometric improvement on the BSRI long form, since it has greater internal consistency, increased purity of factors and greater orthogonality (Lippa, 1985; Payne, 1985). Bem (1981) reported that the long form and the short form are highly correlated, the correlation ranging from .87 to .94.

Originally, Bem (1974) classified individuals by sex-role groups by using a t-ratio for the difference between the total points assigned to the feminine and masculine attributes. An androgynous sex role, therefore, was assigned when an individual indicated an equal number of feminine and masculine personality characteristics. As Spence, Helmreich, and Stapp (1975) indicated, however, this approach did not differentiate between those individuals scoring high on both femininity and masculinity and those individuals scoring low on femininity and masculinity. Taking the suggestion of Spence, Helmreich and Stapp (1975), Bem (1981) has

recommended that individuals be classified into sex-role groups on the basis of a median split on both the femininity and masculinity scales, thus generating four categories: masculine, feminine, androgynous and undifferentiated.

Bem (1974) reported test-retest reliability correlation scores after a four-week period of .90 for masculinity, .90 for femininity, and .93 for androgyny. Internal consistency coefficients were computed separately for females and males on the masculinity, femininity and difference scores and ranged from .75 to .87 (Bem, 1981).

With regard to validity, Bieger (1985) contended that the BSRI has construct validity based on the convergent findings of several studies which used the BSRI to identify sex roles. In his review of the inventory, Lippa (1985) agreed, stating that several studies have suggested that the BSRI scales are correlated with gender-related behaviors, including "conformity, nurturance and interpersonal sensitivity, the avoidance of cross-sex behaviors, nonverbal femininity and masculinity, styles of social interaction, and the cognitive processing of gender-related information" (p. 137).

Critics of the BSRI have disagreed. As stated in Chapter II, several researchers argued that it is not clear what the BSRI actually measures (Payne, 1985; Pedhazur & Tetenbaum, 1979; Wiggins & Holzmuller, 1981).

Moreover, factorial studies of the BSRI items have generated four factors rather than the three Bem has acknowledged (Gaudreau, 1977; Moreland, Gulanick & Montague, 1978; Pedhazur & Tetenbaum, 1979). Payne (1985) suggested that since the short form of the BSRI "does not suffer from these faults" (p. 178) it should be used instead.

The L-BLA Achieving Styles Inventory

The L-BLA Individual Achieving Styles Inventory (ASI-Form 13) (Lipman-Blumen, 1987) was designed to measure the extent to which an individual uses nine different styles or modes in achieving his or her goals. The nine styles are organized into three major domains -- Direct styles, Instrumental styles, and Relational styles -- which are composed of three styles each. The inventory consists of 45 items, five items for each style. Individuals are asked to respond to each item using a seven point Likert scale ranging from (1) "never" to (7) "always". The ASI was scored by summing an individual's responses over the five items for each style and dividing by the number of items answered. Individuals receive a score from 1-7 for each of the nine achieving styles.

Lipman-Blumen et al. (1983) reported 15 week test/retest reliability on the L-BLA Individual Achieving Styles Inventory (ASI-Form 10) ranging from .58 to .73 for the individual scales, while test/retest reliability for

the three domains ranged from .73 to .75.

Validity was established using factor analysis, with oblique rotation, of both items and scales. The validities of the individual style scales were estimated using the reliability of difference scores. Predictive validity was established using discriminant function analyses on gender, age and occupation (Lipman-Blumen, 1987). Lipman-Blumen et al. (1983) found "good to excellent" internal scale consistency and adequate stability over a fifteen-week interval (p. 179). While these tests were done using ASI-Form 10, Lipman-Blumen (1987) indicated that only minor changes were made in ASI-Form 13, and the same reliability and validity data should apply.

Career Aspirations

As indicated in the literature review, career aspirations can be measured by several different indicators. This study attempted to combine four different measures to assess gender differences in presidents of student organizations. These measures were assessed on the demographic questionnaire each student completed.

To measure level of students' future occupational choice students were asked to indicate the career they would choose for themselves right now from a list of

occupations on the Scale of Occupational Prestige (1947) generated by the National Opinion Research Center. Each occupation was coded using a five digit code which represented the actual occupation and its prestige level. The prestige levels ranged from most (01) prestigious to least (11), and were coded as follows:

Government officials - 01

Professional and semi-professional workers - 02

Proprietors, managers, and officials (except farm) --
03

Clerical, sales, and kindred workers - 04

Craftsmen, foremen, and kindred workers - 05

Farmers and farm managers - 06

Protective service workers - 07

Operatives and kindred workers - 08

Farm laborers - 09

Service workers (except domestic & protective) - 10

Laborers (except farm) - 11

Other/miscellaneous - 12

Students' choice of major was also an indicator of career aspiration. Choice of major was assessed by asking students to list their current University of Maryland major on the demographic questionnaire. Using the proportions of male and female students in each major at the University of Maryland at College Park, each major was then categorized as predominantly male, predominantly

female or gender neutral. Sixty-one percent or more of one gender or the other constituted the definition of predominantly male or female (Kingdon & Sedlacek, 1982). Students' choice of major was analyzed, therefore, according to the nature of the choice it represents for the gender of the student -- either a traditional choice, that is, a major typically chosen by students of the same sex; a non-traditional choice, a major chosen predominantly by students of the opposite sex; or a gender neutral choice, a major chosen by both men and women with equal frequency. This item was also analyzed for possible differences for gender makeup of students' group.

Students were also asked to indicate their plans for graduate study by checking the highest academic degree that they intend to obtain from a list of the following options:

1. None
2. Bachelor's degree (BA, BS, etc.)
3. Master's degree (MA, MS, etc.)
4. Ph.D. or Ed.D.
5. M.D., D.O., D.D.S., or D.V.M.
6. LL.B. or J.D. (Law)
7. B.D. or M.Div. (Divinity)
8. Other

These options were analyzed for gender differences.

Respondents were also asked when they plan to begin

graduate study (in terms of years), and this measure was analyzed for gender differences and differences in gender makeup of students' groups.

The fourth indicator of career aspiration used in this study focused on respondents' plans for a full-time or interrupted career. Respondents were asked to check their choice of the following:

1. I plan to work full-time most of my life without interruption for family responsibilities.
2. I plan to work full-time, then part-time while raising children.
3. I plan to work full-time, taking time off for child-raising responsibilities.
4. I plan to work part-time for reasons other than raising children.
5. I do not plan to work at all.

The responses were analyzed for gender differences, and differences in gender makeup of students' groups.

Demographic Questionnaire

A demographic questionnaire was administered to respondents along with the other instruments. In addition to the items used to reflect student leaders' career aspirations, respondents were also asked a variety of general demographic questions including age, race, gender, citizenship, grade point average and year in college.

The demographic questionnaire also included a series of questions on students' leadership roles and organizations. They were as follows: a list of the University of Maryland student organizations in which respondents are or have been members; the student organization a respondent considers to be that with which he/she is or has been most actively involved; and the positions or offices they hold or have held in the past in their most active organization. Gender composition of the student's organization was assessed by asking respondents to indicate whether that group was one of the following:

1. More than 75% of my sex
2. 25% - 75% of my sex
3. Less than 25% of my sex

In order to use the Office of Campus Activities mailing list of student presidents, a final question was included on degree of use of the Office of Campus Activities. This information was used only by Campus Activities staff and not by this study.

Hypotheses

To investigate gender differences and gender make-up of group among presidents of student organizations on the dimensions of achieving styles, self-esteem, career aspirations and sex-role identity, the following null hypotheses were tested:

1. No differences will be found between male and female

presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups on the dimension of achieving styles.

2. No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups on the presidents' self-esteem.

3. No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups on the dimension of sex-role identity.

4. No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups in their career aspirations.

Design/Analysis

Using a quasi-experimental design, this study investigated two independent variables, gender of president of student organization and gender composition of the presidents' organizations, and four dependent variables (presidents' self-esteem, sex-role identities, achieving styles and career aspirations). ANOVA was used to analyze self-esteem; chi-square was used to analyze sex-role identity because the data is categorical; MANOVA was used to analyze achieving styles; and chi-square was used to analyze all categorical career aspiration data

except for "time between baccalaureate and graduate study" which was analyzed using ANOVA. Standard SSPS-X programs were used in these analyses.

Of the 164 presidents who completed the survey package, only 11 indicated that they were presidents of student organizations which had less than 25% of their own sex, and three other presidents had not answered this item. This small proportion created cell sizes so small that analyzing the data with this group included would present difficulties. Specifically, the chi square statistic requires that each cell contain a minimum of five participants (Siegel, 1956), and analyzing such small cell sizes with MANOVA increases the chances of finding between group differences which may not truly be there (Type I error). Including the 11 individuals who were essentially leaders of opposite sex groups in either of the other two categories -- "more than 75% of my sex" (essentially single-sex groups) or "25-75% my sex" (mixed-sex groups) would confound the results. Therefore, these 11 participants were not included in the analyses, and the independent variable, gender composition, was analyzed as containing the two dimensions: single-sex groups with the president being the same sex as the other members, and mixed-sex groups.

CHAPTER IV: RESULTS

Introduction

This chapter presents the results of the analyses for the two independent variables, gender and gender composition of president's group, on the four dependent variables, self-esteem, sex-role identity, achieving styles and career aspirations.

Null Hypotheses

Self-esteem

H01: No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups on the presidents' self-esteem.

A two-way analysis of variance (ANOVA) was conducted using gender and gender composition as independent variables with self-esteem, using the Rosenberg Self-esteem Scale scores, as the dependent variable. The results are seen in Table 5. Neither the two main effects, gender and gender composition, nor their interaction was significant at the .05 level of significance. Thus, the null hypothesis stated above could not be rejected. There appears to be no difference between the level of self-esteem for male and female presidents of student organizations. There also appears to be no difference in self-esteem between those who are

Table 5

Analysis of Variance for Gender and Gender Composition of
Presidents' Self-esteem Scores

N = 154

| Sources of Variation | <u>SS</u> | <u>DF</u> | <u>MS</u> | <u>F</u> | <u>P</u> |
|-------------------------|-----------|-----------|-----------|----------|----------|
| Gender | .92 | 1 | .92 | 2.39 | .12 |
| Gender Composition | .30 | 1 | .30 | .79 | .37 |
| Interaction | .04 | 1 | .04 | .09 | .75 |
| Error | 56.39 | 146 | .39 | | |
| Total | 57.79 | 149 | .39 | | |

| Gender Composition of Group | Gender | | | | Mean score for Gender Composition | |
|-----------------------------|---------------|-----------|---------------|-----------|-----------------------------------|-----------|
| | Male | | Female | | | |
| | <u>n</u> = 88 | | <u>n</u> = 62 | | | |
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> |
| Single-sex | 4.96 | .53 | 5.16 | .61 | 5.06 | .57 |
| Mixed-sex | 4.90 | .72 | 5.03 | .54 | 4.95 | .66 |
| Mean score for Gender | 4.92 | .65 | 5.09 | .57 | | |

$p > .05$

presidents of single-sex groups and those of mixed-sex groups. Table 6 gives the means and standard deviations for these analyses. Both sexes scored very close to five on a six point scale, (mean score for women was 5.09; mean score for men was 4.92) indicating that the self-esteem of this group of students is relatively high.

Sex-role Identity

H02: No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups on the dimension of sex-role identity.

The sex-role identity of participants was determined using the short form of the Bem Sex-role Inventory (1981) which assigned participants into one of four separate categories -- masculine, feminine, androgynous or undifferentiated. Chi-square was the statistic used to perform the analyses. Table 7 gives the results of this analysis. No differences were found among the sex-role identity categories for male and female presidents of student organizations, $\chi^2(3, N = 164) = 7.00, p > .05$, although this analysis approached significance with a probability level of .07. (Scores were weighted in the analyses in order to account for unequal proportions of men and women). Interestingly, the sample was evenly divided among the four sex-role identity categories with an almost equal number of participants falling into each

Table 7

Sex-role Identity of
Male and Female Presidents

| Sex-role Identity | Male <u>n</u> = 95 | | Female <u>n</u> = 69 | | Total Sample <u>n</u> = 164 | |
|-----------------------|-----------------------|----------|-------------------------|----------|--------------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Feminine | 18 | 19 | 22 | 32 | 40 | 25 |
| Masculine | 30 | 32 | 11 | 16 | 41 | 25 |
| Androgynous | 22 | 23 | 19 | 28 | 41 | 25 |
| Undifferent- iated | 25 | 26 | 17 | 25 | 42 | 26 |

$$\chi^2(3, N = 164) = 7.00, p > .05$$

Table 8

Sex-role Identity of Presidents of
Single-sex and Mixed-sex Groups

| Sex-role Identity | Single-sex <u>n</u> = 65 | | Mixed-sex <u>n</u> = 85 | | Total Sample <u>n</u> = 150 | |
|----------------------|-----------------------------|----------|----------------------------|----------|--------------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Feminine | 19 | 29 | 18 | 21 | 37 | 25 |
| Masculine | 15 | 23 | 24 | 28 | 39 | 26 |
| Androgynous | 17 | 26 | 21 | 25 | 38 | 25 |
| Undifferentiated | 14 | 22 | 22 | 26 | 36 | 24 |

$$\chi^2(3, N = 150) = 1.67, p > .05$$

category, although distribution by gender differed. While not significant, men were slightly more likely to be categorized as masculine (32%) than as any of the other three categories, and least likely to be classified as feminine (19%). Similarly, women were slightly more likely to be classified as feminine (32%) and were least likely to be classified as masculine (16%). The remaining participants fell into the androgynous and undifferentiated categories. Again, none of these differences was statistically significant.

Chi-square was also used to test for differences in sex-role identity between presidents of single-sex and mixed-sex groups. No differences were found among sex-role categories for presidents of groups of different gender composition, $\chi^2(3, N = 150) = 1.67, p > .05$. Table 8 gives the results. Very similar proportions of presidents of single-sex and mixed-sex groups were categorized in each of the four sex-role identities.

Achieving Styles

H03: No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups on the dimension of achieving styles.

A two-way Multivariate Analysis of Variance (MANOVA) was performed using gender and gender composition as the two independent variables and achieving styles as the

dependent variables (Table 9). The interaction of gender and gender composition on achieving styles was not significant using Wilks' Lambda criterion ($F = .95$, $df = 9$, $p > .05$). The independent variable, gender composition, was not significant using Wilks' Lambda criterion ($F = .92$, $df = 9$, $p > .05$). The independent variable, gender, was found to be significant using Wilks' Lambda criterion ($F = .81$, $df = 9$, $p < .05$). Given this significant F statistic, univariate F -tests were conducted to find potential gender differences. Of the nine scales of the ASI (1983), significant gender differences were found on the competitive direct scale, the power direct scale, the social instrumental scale, the collaborative relational scale and the contributory relational scale at the .05 level significance. Table 10 gives the F -statistics for these scales. If the Bonferroni procedure were used to adjust the alpha rate for Type I error, thus producing a much more conservative alpha rate of .005, only the competitive direct scale would be significant.

Table 11 gives the means and F -ratios of the individual scales for men and women. Men had higher scores on all significant scales. Men's highest score was power direct, followed by intrinsic direct and collaborative relational. Women's highest score, by contrast, was intrinsic direct (this was a non-significant

Table 9

Multivariate Analysis of Variance of Gender and Gender
Composition of Presidents' Achieving Styles

| | Wilks Lambda Value | Hypo. DF | Error DF | Approx. F | P |
|-----------------------|--------------------------|-------------|-------------|--------------|------|
| Interaction | .95 | 9 | 138 | .82 | .59 |
| Gender | .81 | 9 | 138 | 3.57 | .00* |
| Gender Composition | .93 | 9 | 138 | 1.24 | .27 |

* = $p < .05$

Table 10

Significance of Univariate F-tests for Gender
Differences Among Individual Achieving Styles

| Achieving Style | Significance of <u>F</u> |
|--------------------------|-----------------------------|
| Intrinsic Direct | .48 |
| Competitive Direct | .00* |
| Power Direct | .01* |
| Personal Instrumental | .82 |
| Social Instrumental | .01* |
| Reliant Instrumental | .98 |
| Collaborative Relational | .05* |
| Contributory Relational | .02* |
| Vicarious Relational | .21 |

* = $p < .05$

Wilks' Lambda = .81, $df = 9$, $p = .001$

Table 11

Achieving Styles of Male and Female Presidents

| Achieving Style | Male <u>n</u> = 88 | | Female <u>n</u> = 62 | | <u>F</u> |
|-----------------------------|-----------------------|-----------|-------------------------|-----------|----------|
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | |
| Intrinsic Direct | 5.21 | .79 | 5.11 | .68 | .48 |
| Competitive Direct | 4.60 | 1.24 | 3.70 | 1.18 | .00* |
| Power Direct | 5.35 | 1.02 | 4.87 | 1.00 | .01* |
| Personal Instrumental | 4.51 | 1.19 | 4.39 | 1.06 | .82 |
| Social Instrumental | 4.29 | 1.17 | 3.70 | 1.22 | .01* |
| Reliant Instrumental | 4.70 | .99 | 4.70 | .90 | .98 |
| Collaborative Relational | 5.11 | 1.03 | 4.77 | 1.01 | .05* |
| Contributory Relational | 4.89 | .85 | 4.57 | .96 | .02* |
| Vicarious Relational | 4.84 | .87 | 4.65 | .95 | .21 |

* = $p < .05$

Wilks Lambda = .81, df = 9, p = .001

difference, however) followed by power direct, then, like men, collaborative relational. Competitive direct ranked at the low end of all the styles for both men and women, meaning that participants preferred it less than their higher scored styles. Social instrumental was the least preferred style by both sexes, yet there was still a statistically significant difference between men and women on this scale.

Career Aspirations

H04: No differences will be found between male and female presidents of student organizations nor between the presidents of mixed-sex groups and presidents of single-sex groups in their career aspirations.

Career aspirations were measured using several indicators including prestige level of future career choice, the traditional or non-traditional nature of future career choice, the traditional or non-traditional nature of college major, their plans for graduate study, when participants planned to begin graduate studies, and plans for full-time, continuous or interrupted careers.

Career Prestige Level

The prestige level of presidents' career choice was determined using the Scale of Occupational Prestige (1947) generated by the National Opinion Center. Of the 164 presidents in the study, 17 did not list a career. Of the 147 remaining participants, only seven (5%) listed career

choices which were not categorized by the first three levels of the twelve-level scale, and only 13 (9%) were categorized in the third level. The first three prestige levels are defined as follows:

Government officials - 01

Professional and semi-professional workers - 02

Proprietors, managers, and officials (except farm) -
03

Clearly, for the purposes of this study, no reasonable distinctions can be made between the prestige levels described above, and given the very small proportion of participants falling into other categories (5%), no further analyzes were performed. The null hypothesis could not be rejected for prestige level of potential career choice.

Gender Nature of Career

Each career choice was classified as a predominantly male career, predominantly female career or a gender-neutral career using statistics from the U. S. Bureau of Labor Statistics (1987) and classifying a career as predominantly male or female if the proportion of one sex was 61% or greater. Career choices were categorized as gender neutral if neither sex met this criterion. Chi-square was used to determine if gender differences existed for those choosing predominantly male, female or gender-neutral careers. No significant differences were

found between the choices of men and women presidents of student organizations $\chi^2(2, N = 150) = 3.45, p > .05$.

Table 12 shows the results of the analysis.

Interestingly, the majority of both genders (63%) chose careers which were predominantly male (68% of men and 58% of women). Only 13% chose predominantly female careers, with more women (18%) than men (8%) choosing these careers. Twenty-four percent of both sexes chose gender neutral careers.

A chi-square analysis of presidents of single-sex and mixed-sex groups showed no differences between them in the nature of their career choices $\chi^2(2, N = 136) = 4.97, p > .05$ (Table 13).

Gender Nature of College Major

Presidents' college majors were classified as predominantly male, predominantly female or gender-neutral using statistics for University of Maryland at College Park undergraduate students, fall semester, 1988 (University of Maryland, 1988). Majors were classified predominantly male or female if the proportion of one sex in the major was 61% or greater. Majors were classified as gender neutral if neither sex predominated. Chi-square was used to test for gender differences in the majors presidents indicated. A significant difference was found at the .05 level of significance $\chi^2(2, N = 164) = 15.00, p < .05$ (Table 14). Fifty-one percent of the men were

| Dominant Gender of Career | Male <u>n</u> = 84 | | Female <u>n</u> = 66 | | Total Sample <u>n</u> = 150 | |
|---------------------------|-----------------------|----------|-------------------------|----------|--------------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Male | 57 | 68 | 38 | 58 | 95 | 63 |
| Female | 7 | 8 | 12 | 18 | 19 | 13 |
| Gender neutral | 20 | 24 | 16 | 24 | 36 | 24 |

$\chi^2 (2, N = 150) = 3.45, p > .05$

Table 13

Career Choice by Dominant Gender for Presidents
of Single-sex and Mixed-sex groups

| Dominant Gender of Career | Single-sex | | Mixed-sex | | Total Sample | |
|---------------------------------|---------------|----------|---------------|----------|----------------|----------|
| | <u>n</u> = 59 | | <u>n</u> = 77 | | <u>n</u> = 136 | |
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Male | 31 | 53 | 53 | 69 | 84 | 62 |
| Female | 11 | 19 | 6 | 8 | 17 | 13 |
| Gender neutral | 17 | 29 | 18 | 23 | 35 | 26 |

$$\chi^2 (2, N = 136) = 4.97, p > .05$$

Table 14

Major by Dominant Gender for Male and
Female Presidents

| Dominant Gender of Major | Male | | Female | | Total Sample | |
|--------------------------------|---------------|----------|---------------|----------|----------------|----------|
| | <u>n</u> = 95 | | <u>n</u> = 69 | | <u>n</u> = 164 | |
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Male | 48 | 51 | 17 | 25 | 65 | 40 |
| Female | 18 | 19 | 30 | 44 | 48 | 29 |
| Gender neutral | 29 | 31 | 22 | 32 | 51 | 31 |

$$\chi^2 (2, N = 164) = 15.00, p < .05$$

Table 15

Major by Dominant Gender for Presidents
of Single-sex and Mixed-sex Groups

| Dominant Gender in Major | Single-sex <u>n</u> = 65 | | Mixed-sex <u>n</u> = 85 | | Total Sample <u>n</u> = 150 | |
|--------------------------------|-----------------------------|----------|----------------------------|----------|--------------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Male | 22 | 34 | 36 | 42 | 58 | 39 |
| Female | 22 | 34 | 20 | 24 | 42 | 28 |
| Gender neutral | 21 | 32 | 29 | 34 | 50 | 33 |

$$\chi^2 (2, N = 150) = 2.13, p > .05$$

in male-dominated majors, compared with 25% of the women. Forty-four percent of the women were found in female-dominated majors while only 19% of the men chose these majors. Almost equal proportions of men and women were in the gender-neutral majors -- 31% of the men and 32% of the women.

Chi-square was used to test for differences between presidents of single-sex and mixed-sex groups with regard to the nature of their choice of major. No differences were found $\chi^2(2, N = 150) = 2.13, p > .05$ (Table 15).

Plans for Graduate Study

Presidents' plans for advanced degrees did not differ significantly by gender, $\chi^2(4, N = 161) = 7.99, p > .05$ (Table 16). Twenty-five percent of the total sample planned on receiving only their baccalaureate degree; 42% wished to complete a master's degree; 17% planned on doctoral degrees; 3% were interested in medical or dental degrees, and 11% indicated law. With regard to gender differences, somewhat similar proportions of men (22%) and women (29%) planned on receiving their baccalaureate degree and no further education. Men and women were also similar in their interest in pursuing a master's degree (43% and 41% respectively). Very few of the participants planned on education beyond the master's degree, and the proportions doing so were very similar, with only 17% of

Table 16

Plans for Graduate Study for
Male and Female Presidents

| Graduate Degree | Male | | Female | | Total Sample | |
|--------------------|---------------|----------|---------------|----------|----------------|----------|
| | <u>n</u> = 93 | | <u>n</u> = 68 | | <u>n</u> = 161 | |
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| BA, BS | 20 | 22 | 20 | 29 | 40 | 25 |
| MA, MS | 40 | 43 | 28 | 41 | 68 | 42 |
| Ph.D, Ed.D | 16 | 17 | 12 | 18 | 28 | 17 |
| MD, DO, DDS | 1 | 1 | 4 | 6 | 5 | 3 |
| Law or Other | 16 | 17 | 4 | 6 | 20 | 12 |

$$\chi^2 (4, N = 161) = 7.99, p > .05$$

Table 17

Plans for Graduate Study for Presidents
of Single-sex and Mixed-sex Groups

| Graduate Degree | Single-sex | | Mixed-sex | | Total Sample | |
|--------------------|---------------|----------|---------------|----------|----------------|----------|
| | <u>n</u> = 63 | | <u>n</u> = 85 | | <u>n</u> = 148 | |
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| BA, BS | 19 | 30 | 17 | 20 | 36 | 24 |
| MA, MS | 26 | 41 | 36 | 42 | 62 | 42 |
| Ph.D, Ed.D | 10 | 16 | 15 | 18 | 25 | 17 |
| MD, DO, DDS | 1 | 2 | 4 | 5 | 5 | 3 |
| Law or Other | 7 | 11 | 13 | 15 | 20 | 14 |

$$\chi^2(4, N = 148) = 3.12, p > .05$$

the men and 18% of the women planning on pursuing a doctoral degree. Interestingly, more women were interested in a medical or dental degree (6%), compared with 1% of the men, while 6% of the women were interested in law or other, compared with 17% of the men. (The "Law" and the "Other" categories were combined in the statistical analysis. In reality, "Other" included only two participants). From these results, one can conclude that men and women presidents of student organizations do not seem to have different plans for further education.

Presidents' plans for advanced degrees did not seem to differ by gender composition of their group as well, $\chi^2(4, N = 148) = 3.12, p > .05$ (Table 17). Presidents of single-sex groups were slightly more likely to plan only on a baccalaureate degree than were presidents of mixed-sex groups (30% single-sex versus 20% mixed-sex groups), while the proportions were essentially similar for every other category.

Time between Baccalaureate and Graduate Study

An analysis of variance (ANOVA) was conducted on those participants who planned on graduate study to test for differences in the time between their undergraduate degree and the date they proposed to start their graduate work. No interaction effect was significant using the two independent variables, gender and gender composition of the groups, and no main effect was found for gender or for

Table 18

Analysis of Variance for Gender and Gender
Composition of Time between Baccalaureate
Degree and Graduate Study for Presidents

N = 102

| Sources of Variation | <u>SS</u> | <u>DF</u> | <u>MS</u> | <u>F</u> | <u>P</u> |
|-------------------------|-----------|-----------|-----------|----------|----------|
| Gender | .56 | 1 | .56 | .28 | .59 |
| Gender Composition | .11 | 1 | .11 | .05 | .81 |
| Interaction | .23 | 1 | .23 | .11 | .73 |
| Error | 196.82 | 98 | 2.00 | | |
| Total | 197.81 | 101 | 1.96 | | |

Table 19

Means and Standard Deviations for Time between
Baccalaureate and Graduate Study by Presidents'
Gender and Gender Composition of Group

| Gender Composition of Group | Male <u>n</u> = 62 | | Female <u>n</u> = 40 | | Mean score for Gender Composition | |
|-----------------------------------|-----------------------|------|-------------------------|------|---|------|
| | <u>M</u> <u>SD</u> | | <u>M</u> <u>SD</u> | | <u>M</u> <u>SD</u> | |
| | | | | | | |
| Single-sex | 1.85 | .99 | 1.58 | 1.35 | 1.72 | 1.17 |
| Mixed-sex | 1.83 | 1.59 | 1.76 | 1.45 | 1.81 | 1.53 |
| Mean score for Gender | 1.84 | 1.42 | 1.67 | 1.38 | | |

$p > .05$

gender composition (Table 18). The mean number of years planned between men's baccalaureate degree and graduate study was 1.84, while the mean number of years for women was 1.67. (Table 19). Thus, men and women presidents of student organizations do not seem to differ significantly in the number of years they plan on taking to begin their graduate work, nor do presidents of single-sex and mixed-sex groups differ on this aspect as well.

Plans for Full-time, Continuous or Interrupted Career

There was a significant difference in plans for interrupted or continuous careers between men and women presidents of student organizations, $\chi^2(3, N = 163) = 46.18, p < .05$ (Table 20). No participants indicated that they did not plan to work at all. Forty-four percent of the entire sample planned on working full-time throughout their lives without interruption for family responsibilities, while the remaining 56% planned on various combinations of full-time work and either part-time or no work. With regard to gender differences, 64% of the men and 15% of the women planned on working full-time continuously. Twelve percent of the men and 43% of the women planned on working full-time, then part-time while raising children. Interestingly, a larger proportion of men (21%) planned on taking time off for child-raising responsibilities than planned on working part-time for the same reasons (12%). Forty-three percent

Table 20

Plans for Full-time or Interrupted Career
for Male and Female Presidents

| Career Plans | Male <u>n</u> = 95 | | Female <u>n</u> = 68 | | Total Sample <u>n</u> = 163 | |
|---|-----------------------|----------|-------------------------|----------|--------------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Full-time | 61 | 64 | 10 | 15 | 71 | 44 |
| Part-time for family | 11 | 12 | 29 | 43 | 40 | 25 |
| Full-time, then time off for family | 20 | 21 | 29 | 43 | 49 | 30 |
| Part-time for reasons other than family | 3 | 3 | 0 | 0 | 3 | 2 |

$$\chi^2 (3, N = 163) = 46.18, p < .05$$

Table 21

Plans for Full-time or Interrupted Career
for Presidents of Single-sex and Mixed-sex Groups

| Career Plans | Single-sex <u>n</u> = 64 | | Mixed-sex <u>n</u> = 85 | | Total Sample <u>n</u> = 149 | |
|---|-----------------------------|----------|----------------------------|----------|--------------------------------|----------|
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Full-time | 27 | 42 | 37 | 44 | 64 | 43 |
| Part-time for family | 18 | 28 | 20 | 24 | 38 | 26 |
| Full-time, then time off for family | 19 | 30 | 25 | 29 | 44 | 30 |
| Part-time for reasons other than family | 0 | 0 | 3 | 4 | 3 | 2 |

$\chi^2 (3, N = 149) = 2.58, p > .05$

of women planned on taking time off for child-raising responsibilities, the same proportion of women planning to work part-time. No women indicated that they would limit their full-time work for any reason other than family responsibilities; however, 3% of the men indicated that they would do so for reasons other than raising children.

No significant differences were found between the presidents of single-sex and mixed-sex groups for full-time, continuous careers, $\chi^2(3, N=149) = 2.58, p > .05$ (Table 21). The results are quite similar for both groups for all working arrangements. It is worth noting, however, that the final option, "working part-time for reasons other than raising children", was selected by a few presidents of mixed-sex groups while no presidents of single-sex groups did so.

Summary

Men and women presidents of student organizations were found to have similarities and differences on the four dependent variables studied. No differences were found for men and women presidents on the dimension of self-esteem, with both groups having relatively high self-esteem. No differences were found, as well, in the sex-role identities of men and women presidents. Significant gender differences were found, however, on several of the achieving styles scales including the competitive direct, power direct, social instrumental,

collaborative relational, and contributory relational styles.

Similarities and differences were also found among the indicators of career aspirations. Men and women presidents were found to have similar interest in professional level careers which were predominantly populated by men. However, significant gender differences were found in the presidents' interest in majors, with men favoring predominantly male or gender neutral majors while women favored predominantly female or gender neutral majors. Men and women presidents were also found to have similar interests and plans for graduate study, and planned to attend graduate school relatively soon after graduating with their baccalaureate degree. They differed, however, in their plans for balancing full-time careers with marriage and family responsibilities. The majority of women planned on taking time off from full-time careers for family responsibilities, while the majority of men did not plan to take time off.

No differences were found on any of the dependent variables for presidents of single-sex or mixed-sex groups.

CHAPTER V: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

In this chapter each dependent variable is discussed and conclusions are drawn, recommendations are given for practice, and limitations and directions for future research are discussed.

Discussion

Self-esteem

This study's results suggest that the self-esteem of women presidents of student organizations may be as positive as that of men presidents. Both men and women presidents' self-esteem scores indicated high self-esteem -- very close to five on a six-point scale. In fact, while not significant, women's self-esteem was actually slightly higher than that of men's.

Several studies (Astin & Kent, 1980, 1983; Arnold & Denny, 1985) have found that although the self-esteem of both men and women college students increased over their four years in college, women's self-esteem has lagged behind that of men. However, when women have had the opportunity for leadership, their self-esteem has increased substantially compared both to college women in general and to male student leaders (Astin & Kent, 1983). While this study gives no indication of the self-esteem of women college students in general, this study's results lend support to the premise, made by Astin and Kent (1983)

and El-Khawas (1980), that leadership experience appears to have a very positive effect on college women's self-esteem.

It may be that it also has a positive effect on the self-esteem of men student leaders. However, the literature suggests (Astin & Kent, 1980, 1983; Arnold & Denny, 1985) that both male student leaders and male college students in general are very likely to have higher self-esteem than women at the beginning of their college career, thus it seems likely that leadership experience may not have as powerful an effect on male student leaders' self-esteem as it does on women's.

While not statistically significant, it is interesting to note that presidents of single-sex organizations had slightly higher self-esteem than those of mixed-sex organizations. Perhaps leading an organization of their own sex allows presidents to feel better about themselves. Nonetheless, these differences were not significant and the hypothesis which predicted no difference between these two groups can not be rejected.

Sex-role Identity

Because leadership has typically been thought of as a masculine activity (Bem, 1981), it was hypothesized that women choosing presidential roles would choose to identify themselves using adjectives consistent with traditional leadership characteristics. That is, women in presidents'

roles would be more likely to have masculine or androgynous sex-role identities. Feminine-typed women, who, by definition, are very much aware of cultural definitions of sex-appropriate behavior and attempt to keep their behavior consistent with it, would not be as likely to choose leadership roles (Bem, 1981). Similarly, it was hypothesized that male presidents would choose adjectives consistent with traditional leadership behaviors and therefore have predominantly masculine or androgynous sex-role identities.

Interestingly, the results do not confirm these hypotheses, although significance of differences by gender was approached. Essentially equal proportions of the total sample scored in each of the four sex-role categories, indicating that no one sex-role identity can be construed as the leadership profile for this sample of student leaders. Overall, the presidents in this sample seem as likely to identify with "feminine" sex-role adjectives as they do "masculine" adjectives. Slightly more women were likely to have feminine sex-role identities (32%), indicating comfort with describing themselves using stereotypically feminine adjectives yet, this view of themselves did not prevent them from assuming positions of leadership. Perhaps these women are finding leadership roles in same-sex groups where they are comfortable using assertive leadership skills without

risking men's disapproval for breaking with traditional sex-roles.

Combining androgynous sex-typed women (28%) with masculine sex-typed women (16%) brings the proportion of women indicating comfort with masculine adjectives to 44% of the women's sample. These women were hypothesized to be the most comfortable with leadership roles and therefore more likely to pursue them. Since they do not constitute the majority of the women presidents this was not the case.

Perhaps some presidents, especially androgynous and feminine-typed women and men, do not define leadership behavior as a masculine activity alone and believe that effective leadership behavior has elements of feminine-typed behavior as well. Equally possible, perhaps some students who are presidents of student organizations choose leadership roles less because they represent leadership opportunities to them and more because these roles offer organizing and coordinating roles or opportunities for developing relationships with others.

Men were similarly distributed over sex-role identity categories, although they were more likely to have masculine sex-role identities (32%) than feminine, and they were slightly less likely to be androgynous (23% versus 28% for women). The distribution for this study's

male scores is very similar to the distribution of Bem's (1981) scores for her normed group of male Stanford students (Table 22). Perhaps the male presidents scored similarly to the way college men in general score. In contrast, this study's female presidents scored differently than the female normed sample (Table 22). The current study's female sample contained a much larger proportion of feminine-typed women and a smaller proportion of androgynous-typed women. These differences, of course, may not be due to leadership experience, but instead may be due to different geographic area, a different college, or possibly cohort differences.

No differences were found for presidents of single-sex and mixed-sex groups with relation to their sex-role identities. Clearly, the gender composition of the group does not seem to be related to the sex-role identity of the president.

Achieving Styles

This study's results suggest that gender differences may exist between male and female presidents of student organizations in the styles they use to achieve. Similarities in the achieving styles they use were found as well, however. First, both men and women presidents had relatively high scores on almost every achieving style scale, indicating that these presidents have the flexibility to draw on any of the nine achieving styles,

Table 22

Sex-role Identity of Male and Females Presidents
Compared with Stanford University Normative Sample^a

| Sex-role Identity | Student Leaders | | Stanford Sample | |
|-----------------------|-----------------|----------|-----------------|----------|
| | Male | Female | Male | Female |
| | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> |
| Feminine | 19 | 32 | 16 | 24 |
| Masculine | 32 | 16 | 33 | 16 |
| Androgynous | 23 | 28 | 24 | 37 |
| Undiffer- entiated | 26 | 25 | 28 | 24 |

Note. ^aBem (1981).

depending on which is appropriate to the situation. Both men and women student leaders used the intrinsic direct, power direct and collaborative relational styles as their top three approaches to achieving. As a group, therefore, they could be described as people who are task-oriented, use power to get tasks completed, yet also have the ability to work collaboratively with others. Their three least preferred styles were also similar, using the personal instrumental, competitive direct and social instrumental styles much less than they use their top three. They could be described, therefore, as not being comfortable using past achievements or personal attributes to achieve, nor do they develop social networks purely to become more successful. They additionally do not strive to achieve for competition's sake, although it is also quite clear from the data that there is a significant difference in the degree to which men, as opposed to women, prefer the competitive direct style.

Despite these similarities, however, men and women presidents of student organizations differed both in the order of their preferred achieving styles and on five styles -- power direct, contributory relational, competitive direct, collaborative relational and social instrumental. Men also scored higher on all these styles. Men seemed to be more comfortable with power than were women, were more likely to work collaboratively with

others and to encourage and support others in their own achievements. While not preferring a competitive style as often as some other styles, men were clearly more comfortable with a competitive style than were women. Finally, even though social instrumental was their least preferred style, men as a group were significantly more comfortable developing relationships primarily to help themselves achieve than were women.

It seems that, although women presidents used the same styles as men in achieving, they may have used them less comfortably. Their most preferred style is intrinsic direct, a style that allows them to approach a task individually and to work against an internal standard of excellence. Surprisingly, since women are hypothesized to be better at "relationship skills" (Lipman-Blumen et al., 1983), they do not use the relational styles to achieve any more than the men, and in fact, scored lower on all three of these styles than did the male presidents. Perhaps women student leaders have found that to be successful in positions of leadership they must use both power and collaborative styles, but they do not see themselves as in a position to encourage and support others in their achievements to the same degree that men student leaders do.

A second interpretation of these results may be that it is men's high relational scores which were the

surprising finding, rather than women's lower scores. Perhaps this group of men presidents has learned to draw on relational achieving styles to a high degree.

It may also be, as Lipman-Blumen et al. (1983) have suggested, that women as a group have a response bias on the ASI which is more cautious than that of men, so that they appear to have lower scores, when in fact that is not the case. Lipman-Blumen et al. (1983) have also suggested that high endorsement of most styles may "represent a special attribute, perhaps self-confidence of occupants of such [executive] roles" (p. 183). In this case, Lipman-Blumen et al. (1983) were describing the high scores of senior business executives and M.B.A. students. It may be that men presidents of student organizations share their self-confidence.

Interestingly, women's responses were more similar in order of styles used and in magnitude of response to two previous studies of students involved in student activities (Beardsley et al., 1987; Stewart, 1983) than were the men's. Both Beardsley et al. (1987) and Stewart (1983) found that the two highest styles for their students were intrinsic direct and power direct, while the two lowest styles were competitive direct and social instrumental, mirroring this study's scores for women. In contrast, men in the present study scored highest on the power direct style, and second highest on the intrinsic

direct style, and lowest styles on personal instrumental and social instrumental.

The present study was also similar to the studies of Beardsley et al., (1987), Stewart (1983) and Awad (1980) in that the women participants did not score higher than the men on the relational scales. The present study's results differ also for both sexes from the studies of Beardsley et al. (1987) and Stewart (1983) with regard to the strong placement of the collaborative relational style as the third most preferred style, while in the other two studies the vicarious relational style ranked third. This may be reflecting a team orientation on the part of the presidents which can be effective in working with groups. Beardsley et al. (1987) and Stewart (1983) did not find a significant difference for gender on the collaborative relational style as was found in the present study.

Neither the interaction of gender and gender composition nor the main effect of gender composition with achieving styles was significant. Clearly, whether one is leading a single-sex or mixed-sex group does not appear to have any effect on the achieving styles one may use.

Career Aspirations

Career Prestige level

The research hypothesis which predicted there would be differences between men and women with regard to the prestige level of their career choice was rejected

because, although no formal statistical analysis was performed, all but seven participants (5%) listed career choices which were not categorized by the first three levels of the Scale of Occupational Prestige (National Opinion Research Center, 1947). Both men and women presidents indicated interest in careers which were found in these three prestige levels, that is, government officials, professional and semi-professional workers, and proprietors, managers, and officials (except farm). Unfortunately, these categories are so broad that potential gender differences would be difficult to find. However, these results do suggest that women presidents of student organizations expect to find themselves in professional level careers.

Career Choice by Dominant Gender

More interesting is the degree to which men and women are interested in predominantly male or predominantly female career fields. Using statistics from the U. S. Department of Labor (1987), career fields were defined as predominantly male or female if the proportion of one sex was 61% or greater. Fields were defined as gender neutral if neither sex was represented by 61% or more. This study found no significant differences in the degree to which men or women were interested in predominantly male or predominantly female career fields. In fact, a majority of both men and women aspired to male-dominated career

fields, with gender neutral career fields attracting an additional quarter of both sexes. Predominantly female careers were interesting only to about a fifth of the women and even less of the men. These results are similar to those found by several researchers who believe that college women's career aspirations have shifted from predominantly female careers toward careers less traditional for women, i.e., gender neutral and predominantly male careers (Astin et al., 1987; Kingdon & Sedlacek, 1982; Zuckerman, 1980).

It is interesting to compare Kingdon and Sedlacek's (1982) data with the present study, since students in both studies were from the same university. Kingdon and Sedlacek (1982) reported that 42% of their freshman women sample aspired to careers nontraditional for women, while an additional 22% indicated interest in gender neutral careers. Six years later, 58% of the female presidents of student organizations in this study aspired to predominantly male careers and 24% were interested in gender neutral careers. While the differences between the two samples could be due to different methods of categorization of careers as predominantly male or female, different cohorts, the current study's more mature and experienced students, or possibly to the contribution of the current sample's leadership experience, the difference seems to be noteworthy.

Major Choice by Dominant Gender

Despite the finding that women presidents of student organizations seem to be aspiring to careers in predominantly male fields, the literature suggests that when women actually begin in the job market, they are more likely to enter fields more predominantly female (Harmon, 1981; Knight et al., 1983). The results from this study on presidents' choice of major suggest that despite their aspirations of careers in predominantly male fields, many of these same women have elected college majors which are predominantly female. Specifically, a significant difference was found between the degree to which men and women presidents were interested in majors which were predominantly male, female or gender neutral. Half of the male presidents were in male-dominated majors, while only 25% of the female presidents chose these same majors. Forty-four percent of the presidents were in predominantly female majors, while the remaining 32% were in gender neutral majors.

Given the professional level of their career goals and their clear desire to go into male dominated career fields, it is puzzling that so many women presidents of student organizations have chosen predominantly female majors. Perhaps they expect to be the leaders in predominantly female career fields, thus the high prestige level of their career choices, or perhaps they do not

expect their college majors to determine their final career choice.

The literature is equally unclear on this dimension with some studies suggesting that women are still choosing traditional female majors (Leland, 1980, Randour et al., 1982; Subcommittee on Undergraduate Women's Education, 1987; Zuckerman, 1981), with others indicating that women are selecting nontraditional majors (Arnold & Denny, 1985; Wilson & Lunneborg, 1982). It may be that different methods of categorizing majors as traditional or nontraditional, or predominantly male or female, may be adding to the confusing data on this dimension.

Plans for Graduate Study

Presidents' plans for graduate study add to the puzzle. No significant differences were found for men and women presidents' plans for graduate study, indicating that their plans for specific graduate degrees were very similar. Slightly more women than men planned on completing only a baccalaureate degree, and the proportions of men and women interested in pursuing further degrees were highly similar. The only apparent differences appeared to be in the fields of medicine (in which several more women were interested than men), and law, where interested men outnumbered interested women (17% men versus 6% women). Again, however, the actual numbers of presidents pursuing these degrees was very

small and the difference was not statistically significant.

These results are similar to those of Arnold and Denny (1985) who, in their study of high school valedictorians, found no differences in the proportions of men and women aspiring to graduate study. However, the results do differ from those reported for college students in the Brown study (Leland, 1980) and Zuckerman's (1980) study of students attending a four-year coed college. In these studies, more women than men planned on completing a master's degree, while more men than women planned on getting doctoral degrees. Comparing the total sample with Astin's et al. (1987) national study of college freshmen, many more students in this sample (74%) planned on some form of advanced study beyond the baccalaureate than did the students in the national sample (50%). Perhaps presidents of student organizations have ambitions which require more graduate study than do students in general. Whether these differences are due to the nature of the educational institution, different cohorts, slightly older students, or to involvement in leadership roles is unclear, however.

Time Between Baccalaureate and Graduate Study

No differences were found among men and women presidents of student organizations with regard to the starting date of their graduate program. Interestingly,

the majority of the sample (61%) planned on attending graduate or professional school within one year of graduating with a baccalaureate degree. Nineteen percent planned on attending graduate or professional school within two years of graduation, and 18% planned on attending within five years of graduation. These data do not match those of the Brown study (Leland, 1980) which indicated that a larger proportion of men (43%) than women (35%) planned on beginning their graduate studies immediately after completing their baccalaureate. Perhaps cohort differences can provide a possible explanation for this difference. The students in this study are attending college ten years after those in the Brown study. Surprisingly, these results also do not agree with data from another University of Maryland study (Subcommittee on Undergraduate Women's Education, 1987) which found differences in the proportion of men (26%) compared to women (21%) who began their studies within a year of graduation. It may be that presidents of student organizations, particularly women presidents, are more ambitious about their graduate degrees and plan to begin graduate study immediately. Since the Subcommittee's (1987) results measured the actual time between the baccalaureate degree and graduate study, rather than students' projected plans, it may also be that the Subcommittee's results present a truer picture of reality.

Plans for Full-time, Continuous or Interrupted Career

The final indicator of career aspirations, the degree to which presidents of student organizations planned to work in full-time, continuous careers, demonstrated vast differences between the male and female presidents. All but 15% of the women presidents planned to spend some portion of their lives either not working or working part-time in order to allow time for family responsibilities. In contrast, 64% of the men presidents planned on working full-time continuously, without taking time off for family.

These results are consistent with trends reported in the literature (Arnold & Denny, 1985; Phillips & Johnston, 1985; Zuckerman, 1981); however, the large proportion of women in this study choosing to interrupt their careers is even more dramatic than proportions found in previous research (Arnold & Denny, 1985; Phillips & Johnston, 1985; Zuckerman, 1981). These women are clearly concerned about finding ways to balance career and family. Given their stated intent to participate in professional-level careers, however, it is surprising that so many also expect to take time off from these same careers. In this sense, they do not seem to be realistically assessing the demands of working in high level careers. As Phillips and Johnston (1985) commented about similar findings, women seem to be "selecting a career option inconsistent with

their stated intention" (p. 337).

Zuckerman (1980) suggested that women may initially have unrealistic expectations for combining career, marriage and family but that as women progressed in their education and embarked on careers they may lower their expectations of what they can reasonably do. Perhaps the women presidents in this study are still in the process of idealizing their ability to combine career, marriage and family and have not yet been confronted with the reality of that decision for their lives.

Interestingly, 21% of the men indicated that they planned to take time off for family responsibilities as well. Perhaps these presidents of student organizations are foreshadowing a renewed emphasis on the importance of family, and an increased sharing of family responsibilities between men and women.

Gender Composition of Presidents' Groups

The second independent variable, the gender composition of the presidents' student organizations, was not significant in any of the statistical analyses performed on the career aspiration variables. Apparently, whether a student is the president of a single-sex or mixed-sex group does not seem to have any relationship to the president's future career plans.

Limitations

Several limitations should be noted when considering

possible conclusions drawn from this study. Limitations fall in the areas of the sample, the conceptualization of leadership, the design of the study, the instrumentation and the statistical methodology.

Sample

Generalization from these results should be made with caution because participating students were not drawn randomly. The sample reflects only undergraduate students who were presidents of student organizations. This study does not include students who hold leadership roles other than that of president, nor does it include informal leaders in student organizations. It also does not include leaders of formal organizations which were not registered with the Office of Campus Activities, nor does it include leaders of informal organizations on campus. Most of the respondents were U.S. citizens who were slightly older than traditional college age, with most students falling between 20 and 23 years of age. The sample contained more upperclass students than lower class students and therefore is more reflective of this population.

Leaders were defined in this study as students who were presidents of a registered student organization. It does not necessarily follow that a particular student was an effective leader, or that the student had any leadership skills whatsoever. For example, some students may be in organizations which prize social popularity over

leadership ability and so elect students who have social skills but no leadership ability. It also does not follow that all students had the same motivation in achieving positions of leadership. For one student it might be the gratification of social popularity, for another it might be the opportunity to achieve a valued goal, for still another it might be the chance to wield power over others.

Twenty-nine percent of the presidents of student organizations did not return their questionnaires and instruments and so therefore, were not included in the results of this study. It is not known whether these presidents differed from those who did respond. It is possible that they did not respond because of differences in attitude toward the Office of Campus Activities or campus authority in general.

The proportion of male participants who were in single-sex and mixed-sex groups was quite uneven. This may have had an effect on the accuracy of the results for hypotheses regarding differences among student leaders of groups with different gender composition.

Given the scope of this study, and the small numbers of racial or ethnic minority students participating, this study was unable to focus on potential differences relating to the race of the president of a student organization. Therefore, potential differences due to race were obscured in the data.

The Conceptualization of Leadership

Leaders were defined in this study as presidents of student organizations. This is a very narrow conceptualization of student leaders and leadership roles. Some leadership roles which are not included in this study are leadership roles in off campus organizations such as work, church or other civic or voluntary organizations. Not included also are students who are in leadership roles other than president, who are paraprofessional peer advisors or who are involved in campus leadership training activities. Finally, this study excludes leadership roles in formal or informal organizations which may not be acknowledged by campus administrators as organizations of import. An example of this latter leadership role would be student leaders active in minority or women's causes or other political or anti-authoritary concerns (Sedlacek, 1987). The results of this study, therefore, can not be generalized to these populations.

Design of the Study

This study investigated two independent variables across four dependent variables. Although some of the dependent variables may be related to each other, it was not in the scope of this study to look at these relationships.

A second limitation related to the design of the study is the variability associated with the conditions

under which students completed their questionnaire and instruments. Since the survey packet was mailed to student participants, there was no way to control for the multiple conditions and environments in which students responded to the questionnaire and instruments.

Instrumentation

Validity of study results for the Rosenberg Self-esteem Scale, the Bem Sex-role Inventory and the Achieving Styles Inventory relies upon the assumption that participants' self-report of behavior accurately describes their true behavior and that participants have accurate self-knowledge. Validity also relies upon the assumption that the three inventories measure the appropriate concepts used in this study. For the Achieving Styles Inventory in particular, validity is also dependent on the assumption that responses were not affected by participants' concern to appear socially desirable.

The Rosenberg Self-esteem Scale measures only a global sense of self-esteem and is unable to distinguish between different kinds of self-esteem such as academic or social self-esteem. Because of this, the data on self-esteem in this study are limited to a very general definition of self-esteem. It is possible that differences in self-esteem would appear if other aspects of self-esteem were included in the study.

Prestige level of presidents' career choice was

determined using the Scale of Occupational Prestige (1947) prepared by the National Opinion Center. This scale does not distinguish prestige levels among professional career choices, and was therefore, not helpful in finding distinctions among a wide variety of professional level career choices in this study.

Each career choice was classified as a predominantly male career, a predominantly female career or a gender-neutral career using statistics from the United States Bureau of Labor Statistics (1987). Unfortunately, the categories are quite broad, with many career fields lumped together. The accuracy of the gender label for each career may be obscured by the other careers with which it was combined.

Statistical Methodology

This study was further limited by the decision to exclude the results of the eleven respondents who indicated that they were presidents of student organizations which had less than 25% of their own sex. This decision was made because this small proportion created cell sizes so small that assumptions of statistics selected to perform the analysis would be violated.

Conclusions

The main intent of this study was to explore whether women presidents of student organizations differ from their male counterparts on some dimensions which may

affect their leadership experience. Two different interpretations can be made from these data. The first interpretation argues that there were, in fact, no meaningful differences between men and women presidents of student organizations suggested by this study. Specifically, only three statistically significant differences were found between men and women presidents. Men and women presidents did not differ on their level of self-esteem, or sex-role identity, and using the conservative Bonferroni test, men and women were found to differ significantly only on the competitive direct achieving style. The remaining two significant differences were found on the indicators of career aspirations, in which men and women differed in the degree to which they preferred female dominated college majors and their preference for a full-time or interrupted career.

This interpretation would suggest, therefore, that these few differences seem relatively meaningless when compared to the many similarities shared by men and women student presidents. Men and women presidents of student organizations are similar in their self-esteem, their sex-role identities, their approach to achieving, and their career aspirations. While the literature suggests that men and women college students may differ on these dimensions, it may be that men and women presidents of

student organizations do not differ on these dimensions, and that presidents of student organizations represent, in fact, a much more homogenous population than college students in general.

Given the small number of significant differences (three) in relation to the number of statistical tests of significance performed (13), it may be that these apparent differences are a product of the number of statistical tests performed rather than true differences. This does not appear to be the case, however, since the probability of obtaining three significant differences out of 13 tests due to chance alone is between .05 and .01 (Sakoda, Cohen and Beall, 1954).

A second interpretation may be that, based on the results of this study, men and women presidents of student organizations are similar in some areas, while differing in others.

Results of this study suggest that men and women presidents do not differ in their self-esteem, despite any dissonance which may occur for women by assuming a role not traditionally associated with them. This lack of difference may be important when this study's results are compared with those of other studies which suggest that college women in general have lower self-esteem than do college men in general. Although the results of this study demonstrated high self-esteem for women presidents

of student organizations, this study was not able to determine whether the high self esteem of women presidents was actually affected by their leadership experience. This would be an important question for future research.

Given that any dissonance which women presidents may feel about their leadership role does not appear to affect their self-esteem, it is less surprising to find that a higher proportion of the women in this study have feminine rather than masculine or androgynous sex-role identities.

Sex-role identity was used in this study to investigate potential dissonance women presidents might feel in their roles as leaders. It had been hypothesized that more masculine and androgynous women would choose president roles because their sex-role identity would be more consonant with these roles. Instead, the results suggest that women with feminine sex-role identities may be slightly more the norm in president of student organization roles. It may be that these women experience less social dissonance about their sex-role identity and therefore, feel more confident about participating in a president's role than do masculine or androgynous women -- particularly if that role requires that they be socially popular. It is also possible that these women have not established a firm identity as women or leaders, are therefore unable to see differences between their self-concept and their role, and thus, have not yet

confronted role conflict in their lives as presidents. This is consistent with Orlosfsky and Windle's (1978) suggestion that conformity to society's standards produces a subjective sense of well-being in feminine-typed women, yet, in the long run contributes to lower self-esteem.

Nonetheless, healthy proportions of women with sex-role identities other than feminine chose president roles, so it is likely that, as Leonard & Sigall (1989) suggested, different women experience leadership differently and are at various levels of awareness with themselves, women's issues, and potential conflict with leadership roles.

Women presidents appear to have slightly different approaches to leading in groups than do men as demonstrated by their different achieving styles scores. First, women scored relatively high on almost every achieving style, indicating that they can move with ease among the styles and can draw on most styles when they believe it necessary. Nonetheless, they scored lower than men on almost every scale, thus appearing less comfortable with any style or approach to leadership than were men. Women presidents also preferred to achieve tasks directly themselves over any other approach, with the use of power as a second option and finally, collaboration as a third. They were significantly less comfortable than were men in using power, collaboration, competition, encouraging

others, or networking when attempting to achieve. The order of their preferred styles seems to be similar to that of men, however the strength of those styles is less. While women's scores were not low on the relational styles, the scores of the men student leaders were surprising in their high endorsement of relational styles.

In essence, women seem to exhibit similar behaviors to men, but with less comfort. Perhaps, as Leonard and Sigall (1989) suggested, women student leaders are attempting to lead in ways similar to men's traditional style. They did not predict, however, the possibility that men might begin to value styles which have typically been women's strengths.

The career aspirations of women presidents of student organizations were similar in several ways to those of men presidents. They aspired to predominantly male careers, planned on attending graduate school to the same degree, and planned on starting graduate school at the same time. Clearly, these women are ambitious, and in comparison to data in other studies, more ambitious than college women in general. However, a large proportion of these same women presidents (44%) were in female-dominated majors in college, and all but 15% of the women presidents planned to spend some portion of their lives either not working or working part-time in order to allow time for family

responsibilities. These results suggest that women presidents are struggling with their career choices, and attempting to find a balance between their ambitious aspirations and their clear desire to maintain the more traditional roles of women -- marriage and family.

Summary

In sum, these results paint a picture of highly ambitious women students who have chosen presidential roles, have high self-esteem, perhaps higher than other college women, who may or may not consider themselves typically feminine, who are approaching the task leading groups using styles more comfortable to the men than the women, and additionally are hoping to balance their career ambition with future family.

Implications for Practice

This study did not find definitive differences between men and women student presidents. More research needs to be performed before practitioners develop programs based on potential gender differences among student leaders. Therefore, the following suggestions should be interpreted only as tentative implications for practice, which may or may not be borne out by future research.

Practitioners should encourage college women to participate in leadership roles. This study suggests that the self-esteem of women presidents of student

organizations is high, and, while it is not yet known, may possibly be increased by their leadership experience. Given these results, student affairs practitioners may consider developing programs which give women students opportunities for practicing leadership skills, then encourage and actively support women's efforts to become student leaders. Opportunities need not be restricted to traditional leadership training programs. Sagaria (1988) reported that women students learned leadership through academic programs and curricula such as women's studies programs, and formal or informal mentoring relationships between women students and women faculty or administrators.

Secondly, leadership training for women may question the equation of leadership with masculinity and the traditional male approach to leadership. Instead, leadership training may attempt to reinforce behaviors women generally already possess -- compassion, understanding the other, maintaining a relationship. Training might also explore the dynamics of power and competition, helping women understand why they may not be as comfortable with these elements in group situations, and how to use them appropriately when necessary.

Women presidents of student organizations in this study were clearly concerned about combining ambitious careers with marriage and family, and they may not have

realistic expectations about the ease with which this can be done. Programs should be developed which address women's concern about combining career with marriage and family. A second focus should be on women's aspirations for careers in fields which are dominated by men. Another area of importance to discuss programmatically would be women's choice of female-dominated majors yet their ambition to work in high prestige fields.

Recommendations For Future Research

This study was intended as an exploratory investigation of presidents of student organizations and potential gender differences, and of the possible relationship of the gender composition of the presidents' group. Much more research needs to be performed on student leaders and gender differences. Future research falls into several areas: potential racial differences; differences between college student leaders and college students in general; measuring the same concepts using different instruments; determining relationships among the dependent variables; and exploring further gender differences suggested by this study. These will be discussed below.

Future researchers may look for possible racial or ethnic differences as well as gender differences in student leaders. By combining results for all ethnic and racial groups, the assumption is made that all cultures

define important concepts such as leadership and gender roles in the same ways. Since this is unlikely to be true, combining results for different racial and ethnic groups in the study may impact the accuracy of the results as well as obscure potential differences which may offer additional insight into the ways gender roles may affect student leaders.

Future studies should also focus attention on how college student leaders differ from college students in general. The literature suggests that college student leaders do differ from their student colleagues, especially in relation to self-esteem. Of particular interest would be differences between women student leaders and women students in general on the dependent variables involved in the present study.

Gender differences among student leaders' self-esteem should be measured using more precise measures of self-esteem and additionally, should include measures of several different aspects of the self-concept including social self-esteem, academic self-esteem and intellectual self-esteem. This would help researchers to understand what aspects of women's self-concept is affected by and related to leadership experience.

An instrument which focuses more directly on the conflict Leonard and Sigall (1989) posited women experience between their sex-roles and their leadership

roles should be used to shed more light on this issue. A questionnaire targeted at women student leaders' perceived problems and conflicts as women leaders may help researchers understand women's leadership experience more clearly. A second instrument which may contribute information on student leaders' views on appropriate roles for women might be the Attitudes Toward Women Scale (Spence & Helmreich, 1972) or a similar instrument. Perhaps this instrument, combined with the questionnaire focused on women student leaders' concerns, may be helpful in clarifying their potential conflict.

This study did not measure leadership style or leadership effectiveness of student leaders, two concepts which could be of value in ascertaining gender differences between student leaders. While the ASI was not designed as a leadership instrument, it does attempt to measure several different approaches to achieving which have been posited to relate to potential gender differences between men and women (Lipman-Blumen & Leavitt, 1976). It is, therefore, a useful instrument in conducting research on gender differences among student leaders. Pairing it with instruments measuring leadership style and effectiveness might offer additional information on gender differences among student leaders.

The relationships among the dependent variables should be explored both for gender differences among

student leaders and differences within each gender. For example, while no gender differences were found among student leaders on sex-role identity, it may be that gender differences would be found if the relationship between self-esteem and sex-role identity were explored. Another possibility would be that for women student leaders, a specific sex-role identity might be associated with higher self-esteem. This analysis may tease out potential differences among student leaders in sex-role identity which remained hidden in the present study. Likewise, other relationships between the dependent variables should be explored including the relationship between self-esteem and achieving styles, the relationship between sex-role identity and achieving styles, and any possible relationships between career aspirations and the other dependent variables.

One of the major differences among presidents of student organizations suggested by this study regards women presidents' plans for the future, especially with relation to their plans for combining career and family. Moreover, women's plans seem to be in conflict with their stated career ambitions, and may reflect unrealistic visions of the future and areas for potential conflict. In order to understand better what women student leaders envision for their future and to ascertain potential areas for conflict, this issue should be studied further.

A related issue suggested by this study concerns the potential conflict between the female dominated majors many women student leaders chose and the male dominated career fields to which they aspire. More research should focus on this puzzle, striving to understand women presidents' choices of major and subsequent career.

Additional studies could focus also on the achieving style differences indicated by the ASI. Of particular interest would be additional research on women student leaders' attitudes toward competition, power, or any of the other achieving scales which suggested that women differ significantly from men.

Possible replications of this study might include the following suggested changes involving the sample, design of the study and the instrumentation.

College student leaders could be defined more broadly to include students who participate in the many diverse student leadership positions on campus including officers of organizations other than president; students who supervise others at worksites on campus; resident assistants and other positions for which students are selected and which include a leadership role; students who are enrolled in leadership training activities; student leaders of informal groups which are not registered or recognized by the institution; leadership roles which are not viewed by campus administrators as significant or not

in the mainstream of campus life; and students who are in leadership roles off campus at work, in community organizations or at church.

Racial/ethnic minority student leaders could be analyzed separately from majority students and compared for potential differences, or a study could focus only on racial/ethnic minority student leaders. Any study which focuses on racial/ethnic minority students should expand the definition of leader to incorporate broad roles of participation including leadership roles in unrecognized student groups focusing on racial/ethnic concerns, and off campus leadership roles with work, community or church organizations (Sedlacek, 1987).

The design of the study could be changed to include control groups of male and female college students not involved in leadership roles or programs so that gender differences among college students in general would be distinguished from differences found among college student leaders. Also, how college student leaders differ from college students in general could be analyzed on all dependent variables.

Another twist on the study design might be a study which focused only on women student leaders, comparing lower self-esteem women student leaders with higher self-esteem women student leaders to see what differences emerge.

Relationships among dependent variables could be analyzed in order to tease out possible gender differences obscured by the lack of this kind of analysis in the present study.

The instrumentation could be changed so that several different aspects of self-esteem would be measured including overall self-esteem, social self-esteem and academic self-esteem. A questionnaire focusing on potential conflicts women student leaders are posited to face could be administered in place of the Bem Sex-role Inventory, thereby making it more likely that conflicts between one's sex-role and leadership role might be clarified. More precise measures of both career prestige and the proportions of men and women in career fields could be used to shed more light on gender differences in career aspirations.

Appendix A

Survey Package: Cover Letter, Questionnaire and
Instruments

October 28, 1988

Dear Student Leader,

The Office of Campus Activities is trying to learn more about the students who choose leadership roles, particularly those students who hold the top leadership roles in a student organization. Since you are the president of your student organization we are especially interested in hearing from you.

The study we are conducting will help us learn how student leaders view themselves, how they experience their leadership roles, and the personal characteristics and goals which they may have in common. It will also help us in designing leadership training programs.

We would appreciate it if you would complete the attached questionnaire and the two standardized inventories and return them to the Office of Campus Activities. It should take you no more than 35 minutes to complete everything, and some people take less time. Please respond to the items as honestly and candidly as possible. The results will be reported collectively and no individual results will be used. All information collected is confidential and your name will not be identified at any time.

If you have any questions about this project or are interested in learning about the collective results of this study, please contact Jana Varwig in the Office of Campus Activities (454-5605).

Since you and the other study participants represent a relatively small and select group, your response is critical to ensure accurate results from this study. Please complete and return your questionnaire and inventories in the enclosed envelope within three days.

We thank you for your time and look forward to learning more about the student leaders at the University of Maryland.

Sincerely,
Jana Varwig

QUESTIONNAIRE

SOCIAL SECURITY NUMBER _____

DEMOGRAPHIC INFORMATION:

1. What is your age? _____
2. What is your citizenship? _____
3. To which racial/ethnic group do you belong?
(Circle one)
 1. Afro-American/Black American
 2. American Indian or Alaskan Native
 3. Caucasian/White American
 4. Mexican-American, Puerto Rican, or Other Hispanic American
 5. Asian-American
 6. Other/International Student
4. What is your sex? (Circle one)
 1. Male
 2. Female
5. What is your current overall college GPA? _____

CURRENT STUDENT STATUS:

6. How does the University currently classify your class level? (Circle one)
 1. Freshman (0-27 credits earned)
 2. Sophomore (28-55 credits earned)
 3. Junior (56-83 credits earned)
 4. Senior (84 or more credits earned)
 5. Graduate or Professional Student
 6. Special Student, Unclassified, Other
7. What is your current major? Use whatever the University currently has you registered in even if you are planning to change. _____

PLANS FOR GRADUATE STUDY:

8. What is the highest academic degree that you intend to obtain? (Circle one)
 1. None
 2. Bachelor's degree (BA, BS, etc.)
 3. Master's degree (MA, MS, etc.)
 4. Ph.D. or Ed.D.
 5. M.D., D.O., D.D.S., or D.V.M.
 6. LL.B., or J.D. (Law)
 7. B.D. or M.Div. (Divinity)
 8. Other

9. If you plan to attend graduate school, in how many years (if any) from the date you graduate with your Bachelor's degree will you begin your graduate studies?

STUDENT INVOLVEMENT INFORMATION:

10. List the student organization(s) at the University of Maryland, if any, of which you are or have been a member:

11. List the one student organization from the list above which you consider to be the organization in which you are or have been most active: _____

12. List the position(s) or office(s) you hold or have held in the past (if any) in the student organization you listed in #11 above: (i.e., president, vice president, treasurer, secretary, social chairperson, member, etc.)

13. What is the sex composition of the student organization you listed in #11? (Circle one)

1. More than 75% of my sex
2. 25% - 75% of my sex
3. Less than 25% of my sex

14. How many times since the beginning of the semester have you sought advisement, program consultation or other services from the Office of Campus Activities? (Circle one)

1. None
2. 1 - 5 times since the beginning of the semester
3. once weekly
4. 2 - 4 times weekly
5. daily

FUTURE CAREER PLANS:

15. If you had to pick a career right now, what would you be? _____

16. What are your plans for a full-time career in the future? (Circle one)
1. I plan to work full-time most of my life without interruption for family responsibilities
 2. I plan to work full-time, then part-time while raising children
 3. I plan to work full-time, taking time off for child-raising responsibilities
 4. I plan to work part-time for reasons other than raising children
 5. I do not plan to work at all.

FOR THE NEXT TEN QUESTIONS, USE THE FOLLOWING SCALE TO RATE YOURSELF.

| | | | | | |
|----------|----------|----------|----------|-------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| strongly | | slightly | slightly | | strongly |
| disagree | disagree | disagree | agree | agree | agree |

17. _____ On the whole, I am satisfied with myself.
18. _____ At times, I think I am no good at all.
19. _____ I feel that I have a number of good qualities.
20. _____ I am able to do things as well as most other people.
21. _____ I feel I do not have much to be proud of.
22. _____ I certainly feel useless at times.
23. _____ I feel that I am a person of worth, at least on an equal plane with others.
24. _____ I wish I could have more respect for myself.
25. _____ All in all, I am inclined to feel that I am a failure.
26. _____ I take a positive attitude toward myself.

PLEASE NOTE:

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These consist of pages:

L-BLA Achieving Styles Inventory 160-161

Bem Inventory 162-163

U·M·I

L-BLA ACHIEVING STYLES INVENTORY

Circle the number that best describes your behavior. Please respond to every statement.

CARD 2

| | <i>Never</i> | <i>Always</i> | |
|---|---------------|---------------|------|
| 1. For me, the most gratifying thing is to have solved a tough problem. | 1 2 3 4 5 6 7 | | (11) |
| 2. I get to know important people in order to succeed. | 1 2 3 4 5 6 7 | | (12) |
| 3. I achieve my goals through contributing to the success of others. | 1 2 3 4 5 6 7 | | (13) |
| 4. For me, winning is the most important thing. | 1 2 3 4 5 6 7 | | (14) |
| 5. When I want to achieve something, I look for assistance. | 1 2 3 4 5 6 7 | | (15) |
| 6. I work hard to achieve so people will think well of me. | 1 2 3 4 5 6 7 | | (16) |
| 7. I want to be the leader. | 1 2 3 4 5 6 7 | | (17) |
| 8. More than anything else, I like to take on a challenging task. | 1 2 3 4 5 6 7 | | (18) |
| 9. Faced with a task, I prefer a team approach to an individual one. | 1 2 3 4 5 6 7 | | (19) |
| 10. I seek out leadership positions. | 1 2 3 4 5 6 7 | | (20) |
| 11. Winning in competition is the most thrilling thing I can imagine. | 1 2 3 4 5 6 7 | | (21) |
| 12. I feel the successes or failures of those close to me as if they were my own. | 1 2 3 4 5 6 7 | | (22) |
| 13. I strive to achieve so that I will be well liked. | 1 2 3 4 5 6 7 | | (23) |
| 14. The more competitive the situation, the better I like it. | 1 2 3 4 5 6 7 | | (24) |
| 15. Real team effort is the best way for me to get a job done. | 1 2 3 4 5 6 7 | | (25) |
| 16. I achieve by guiding others towards their goals. | 1 2 3 4 5 6 7 | | (26) |
| 17. For me, the most exciting thing is working on a tough problem. | 1 2 3 4 5 6 7 | | (27) |
| 18. I seek guidance when I have a task to accomplish. | 1 2 3 4 5 6 7 | | (28) |
| 19. I have a sense of failure when those I care about do poorly. | 1 2 3 4 5 6 7 | | (29) |
| 20. I develop some relationships with others to get what I need to succeed. | 1 2 3 4 5 6 7 | | (30) |
| 21. I seek positions of authority. | 1 2 3 4 5 6 7 | | (31) |
| 22. I am not happy if I don't come out on top in a competitive situation. | 1 2 3 4 5 6 7 | | (32) |
| 23. My way of achieving is by coaching others to their own success. | 1 2 3 4 5 6 7 | | (33) |

(continue on back of page)

| | <i>Never</i> | | <i>Always</i> | |
|--|--------------|---|---------------|--------------|
| 24. For me, group effort is the most effective means to accomplishment. | 1 | 2 | 3 | 4 5 6 7 (34) |
| 25. I look for support from others when undertaking a new task. | 1 | 2 | 3 | 4 5 6 7 (35) |
| 26. I establish some relationships for the benefits they bring. | 1 | 2 | 3 | 4 5 6 7 (36) |
| 27. I try to be successful at what I do so that I will be respected. | 1 | 2 | 3 | 4 5 6 7 (37) |
| 28. I want to take charge when working with others. | 1 | 2 | 3 | 4 5 6 7 (38) |
| 29. When a loved one succeeds, I also have a sense of accomplishment although I make no direct contribution. | 1 | 2 | 3 | 4 5 6 7 (39) |
| 30. I strive to achieve in order to gain recognition. | 1 | 2 | 3 | 4 5 6 7 (40) |
| 31. I look for reassurance from others when making decisions. | 1 | 2 | 3 | 4 5 6 7 (41) |
| 32. For me, the greatest accomplishment is when the people I love achieve their goals. | 1 | 2 | 3 | 4 5 6 7 (42) |
| 33. I go out of my way to work on challenging tasks. | 1 | 2 | 3 | 4 5 6 7 (43) |
| 34. I succeed by taking an active part in helping others achieve success. | 1 | 2 | 3 | 4 5 6 7 (44) |
| 35. I use my relationships with others to get things done. | 1 | 2 | 3 | 4 5 6 7 (45) |
| 36. Working with others brings out my best efforts. | 1 | 2 | 3 | 4 5 6 7 (46) |
| 37. I select competitive situations because I do better when I compete. | 1 | 2 | 3 | 4 5 6 7 (47) |
| 38. Being the person in charge is exciting to me. | 1 | 2 | 3 | 4 5 6 7 (48) |
| 39. I work to accomplish my goals to gain the admiration of others. | 1 | 2 | 3 | 4 5 6 7 (49) |
| 40. I establish a relationship with one person in order to get to know others. | 1 | 2 | 3 | 4 5 6 7 (50) |
| 41. My way of achieving is by helping others to learn how to get what they want. | 1 | 2 | 3 | 4 5 6 7 (51) |
| 42. The accomplishment of close others gives me a feeling of accomplishment as well. | 1 | 2 | 3 | 4 5 6 7 (52) |
| 43. For me, the greatest satisfaction comes from breaking through to the solution of a new problem. | 1 | 2 | 3 | 4 5 6 7 (53) |
| 44. When I encounter a difficult problem, I go for help. | 1 | 2 | 3 | 4 5 6 7 (54) |
| 45. My best achievements come from working with others. | 1 | 2 | 3 | 4 5 6 7 (55) |

BEM INVENTORY

Developed by Sandra L. Bem, Ph.D.

Name _____ Age _____ Sex _____
Phone No. or Address _____
Date _____ 19 ____
If a student: School _____ Yr. in School _____
If not a student: Occupation _____

DIRECTIONS

On the opposite side of this sheet, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale from 1 to 7, how true of you each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never true that you are sly.

Write a 2 if it is usually not true that you are sly.

Write a 3 if it is sometimes but infrequently true that you are sly.

Write a 4 if it is occasionally true that you are sly.

Write a 5 if it is often true that you are sly.

Write a 6 if it is usually true that you are sly.

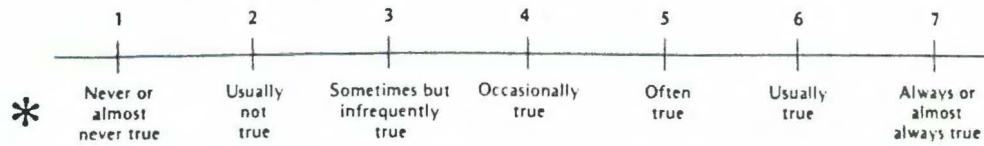
Write a 7 if it is always or almost always true that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

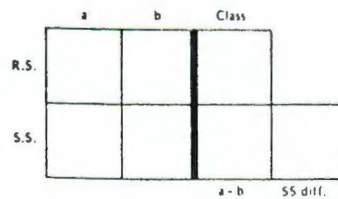
| | | | |
|-----------|---|---------------|---|
| Sly | 3 | Irresponsible | 7 |
| Malicious | 1 | Carefree | 5 |

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| | | | | | |
|-------------------------------|--|-------------------------|--|---------------------------|--|
| Defend my own beliefs | | Adaptable | | Flatterable | |
| Affectionate | | Dominant | | Theatrical | |
| Conscientious | | Tender | | Self-sufficient | |
| Independent | | Conceited | | Loyal | |
| Sympathetic | | Willing to take a stand | | Happy | |
| Moody | | Love children | | Individualistic | |
| Assertive | | Tactful | | Soft-spoken | |
| Sensitive to needs of others | | Aggressive | | Unpredictable | |
| Reliable | | Gentle | | Masculine | |
| Strong personality | | Conventional | | Gullible | |
| Understanding | | Self-reliant | | Solemn | |
| Jealous | | Yielding | | Competitive | |
| Forceful | | Helpful | | Childlike | |
| Compassionate | | Athletic | | Likable | |
| Truthful | | Cheerful | | Ambitious | |
| Have leadership abilities | | Unsystematic | | Do not use harsh language | |
| Eager to soothe hurt feelings | | Analytical | | Sincere | |
| Secretive | | Shy | | Act as a leader | |
| Willing to take risks | | Inefficient | | Feminine | |
| Warm | | Make decisions easily | | Friendly | |



Appendix B

Reminder Postcard

Reminder postcard mailed three days following initial mailing:

A few days ago you should have received a letter and questionnaire requesting that you participate in an important study on student leaders. If you have completed the questionnaire and inventories and returned them, we thank you. If you have not, please return the completed forms to the Office of Campus Activities within the next three days. If you have not received the letter and questionnaire, please contact Jana Varwig at the Office of Campus Activities, 454-5605.

Thank you for your participation.

Appendix C

Telephone Protocol

Hello, my name is _____ and I'm calling from the Office of Campus Activities. Last week you should have received a letter and survey about student leaders from Jana Varwig at the office of Campus Activities. I wondered whether you had received it?

Have you had a chance to mail it back?

If not,...

This survey is actually two projects: The office is really interested in the results, and it is also Jana's dissertation. So it is really important that we get your response. We are only surveying presidents of student organizations -- a small and pretty select group -- and really need to get a response from everyone.

Specifically, we are interested in the characteristics and personal values of presidents of student organizations. This will help us to plan our leadership conferences and training programs to serve you better.

Your responses will not be identified with you individually. We are interested in the general response of presidents of student organizations.

The survey should take no longer than 35 minutes and many people finish it in less time.

Would you be able to complete the survey and return it by the end of the week?

Do you need another survey sent to you? What is a good address?

Let them talk or complain about Campus Activities or if they have any concerns please write them down and tell them I will get back to them. Get their phone number where they'd be available also.

If the phone number is disconnected or they've moved, please record this, as it will make a difference in response rate. Make a note regarding results of each call.

Appendix D

Scale of Occupational Prestige

| | |
|-------|---|
| 00302 | account executive |
| 00102 | accountant |
| 02204 | accounting clerk |
| 00412 | actor/actress |
| 00502 | actuary |
| 00604 | administrative assistant |
| 00702 | advertising copywriter |
| 00903 | advertising manager |
| 01002 | aerospace engineer |
| 01102 | aerospace engineering technician |
| 01202 | agricultural scientist |
| 01308 | air conditioning/refrigeration mechanic |
| 01402 | air traffic controller |
| 01508 | aircraft mechanic |
| 01602 | airplane pilot |
| 04903 | airport manager |
| 00802 | animal scientist |
| 01802 | anthropologist |
| 17310 | appliance servicer |
| 02002 | architect |
| 01708 | assembler (general) |
| 02502 | astronomer |
| 02612 | athlete (professional) |
| 02712 | athletic coach |
| 01904 | auctioneer |
| 02102 | audiologist |
| 14910 | auto service station attendant |
| 17503 | auto service station manager |
| 02908 | automotive body repairer |
| 03202 | automotive engineer |
| 03308 | automotive mechanic |
| 05105 | automotive painter |
| 03610 | baker |
| 03703 | bank officer |
| 39404 | bank teller |
| 03810 | barber |
| 03910 | bartender |
| 08710 | beautician/cosmetologist |
| 10603 | benefits manager |
| 04004 | bill collector |

Note. This scale was produced by the National Opinion Research Center (1947).

| | |
|-------|---------------------------------------|
| 04104 | biller (billing clerk) |
| 04202 | biochemist |
| 03402 | biologist |
| 03002 | biomedical engineer |
| 06002 | biomedical equipment technician |
| 04405 | blacksmith (farrier) |
| 04512 | blaster |
| 11808 | blue-collar worker supervisor |
| 04605 | boilermaker |
| 04712 | bookbinder |
| 04804 | bookkeeper |
| 05002 | botanist |
| 05205 | bricklayer, stonemason |
| 33012 | broadcast technician |
| 05302 | building inspector (construction) |
| 05403 | building manager |
| 03112 | bus driver |
| 05502 | business manager (agent) |
| 04302 | business representative (labor union) |
| 05810 | butcher/meatcutter |
| 05902 | buyer |
| 06105 | carpenter |
| 06402 | cartoonist |
| 06204 | cashier |
| 06302 | caterer |
| 06505 | cement mason |
| 06810 | chauffeur |
| 06704 | check-out clerk (grocery store) |
| 07002 | chemical engineer |
| 06902 | chemical laboratory technician |
| 07102 | chemist |
| 07202 | chiropractor |
| 07302 | civil engineer |
| 07404 | claims adjuster |
| 07504 | clerk (general) |
| 07708 | coal equipment operator |
| 16108 | coin machine mechanic |
| 07802 | college professor |
| 08102 | columnist |
| 17012 | commercial artist (illustrator) |
| 38608 | communications equipment mechanic |
| 06612 | compositor |
| 08208 | compressor house operator |
| 08304 | computer operator |
| 19204 | computer printer operator |
| 08402 | computer programmer |
| 08902 | computer service technician |
| 38702 | computer systems analyst |
| 42302 | computer systems specialist |
| 22811 | construction worker |
| 08503 | contractor |
| 05603 | controller (comptroller) |
| 08610 | cook or chef |

| | |
|-------|--------------------------------------|
| 10207 | correction officer |
| 08802 | counselor |
| 34002 | counselor, vocational rehabilitation |
| 37210 | counter attendant |
| 18304 | court reporter |
| 09012 | crater |
| 09103 | credit manager |
| 19402 | criminalist |
| 09202 | critic (book or theater) |
| 09402 | customs inspector |
| 13802 | dancer |
| 09504 | datat typist |
| 10102 | dental assistant |
| 09802 | dental hygienist |
| 09908 | dental laboratory technician |
| 10002 | dentist |
| 10307 | detective, police |
| 19502 | dialysis technician |
| 21008 | diesel mechanic |
| 10502 | dietetic technician |
| 10402 | dietitian |
| 11010 | dining room attendant |
| 10702 | director, industrial relations |
| 10810 | director, social |
| 10902 | director, social service |
| 42504 | dispatcher |
| 09604 | displayer, merchandise |
| 11212 | dock worker (stevedore) |
| 30502 | doctor, medical (physician) |
| 24311 | domestic worker |
| 11502 | drafter |
| 11402 | dramatist |
| 34904 | driver, sales route |
| 11710 | dry cleaner |
| 07905 | drywall installer |
| 11902 | economist |
| 12002 | editor |
| 12102 | educational administrator |
| 11602 | EEG technologist |
| 41802 | EKG technician |
| 12202 | electrical engineer |
| 12805 | electrician, construction |
| 12905 | electrician, maintenance |
| 12310 | electrologist |
| 12405 | electronic technician |
| 12508 | electroplater |
| 12708 | elevator mechanic |
| 13202 | emergency medical technician |
| 13002 | employment interviewer |
| 13102 | employment representative |
| 13602 | engineering technician, mechanic |
| 14203 | executive housekeeper |
| 14302 | extension agent |

| | |
|-------|-------------------------------------|
| 11308 | farm equipment mechanic |
| 14406 | farm manager |
| 14506 | farmer (rancher) |
| 14602 | fashion artist |
| 08002 | fashion designer |
| 14704 | fashion model |
| 13301 | FBI agent |
| 14804 | file clerk |
| 15002 | financial analyst |
| 15107 | firefighter |
| 15307 | fish and game warden |
| 15412 | fisher |
| 15510 | flight attendant/stewardess/steward |
| 13404 | flight dispatcher |
| 13508 | floor covering installer |
| 15702 | floral arranger/designer |
| 15802 | food & drug inspector |
| 15910 | food service supervisor |
| 22502 | food technologist |
| 16002 | foreign language interpreter |
| 16201 | foreign service officer |
| 16304 | foreign trade clerk |
| 13702 | forester |
| 16508 | forging press operator |
| 16703 | funeral director |
| 17102 | fur designer |
| 16808 | furnace operator |
| 14008 | furniture upholsterer |
| 17203 | garbage collector |
| 17602 | geologist |
| 42102 | geophysicist |
| 23602 | gerontologist |
| 17905 | glazier |
| 18403 | grocery store manager |
| 18511 | groundskeeper (gardener) |
| 18602 | group social worker |
| 18707 | guard (security) |
| 19008 | heat treater |
| 19108 | heavy equipment operator |
| 19302 | historian |
| 19602 | home economist |
| 27311 | horticultural (nursery) worker |
| 19802 | horticulturist |
| 19910 | host/hostess |
| 16404 | hotel clerk |
| 16903 | hotel/motel manager |
| 20010 | housekeeper (hotel) |
| 20110 | houseparent |
| 20302 | importer-exporter (wholesaler) |
| 20502 | industrial engineer |
| 17402 | industrial engineer technician |
| 17802 | industrial hygienist |
| 20908 | instrument mechanic |

| | |
|-------|-------------------------------|
| 20608 | insulation worker |
| 23302 | insurance agent |
| 21203 | insurance manager |
| 21302 | insurance underwriter |
| 21402 | interior decorator (designer) |
| 21502 | internist |
| 21710 | janitor (building custodian) |
| 21802 | job analyst |
| 22002 | job analyst |
| 18008 | job and die setter |
| 22304 | keypunch operator |
| 22410 | kitchen helper |
| 22702 | laboratory tester |
| 18102 | landscape architect |
| 24002 | laser technician |
| 02802 | lawyer/attorney |
| 24802 | legal assistant |
| 18204 | legal secretary |
| 23002 | librarian |
| 23102 | library assisant |
| 09302 | library technician |
| 23408 | line installer/cable splicer |
| 23503 | liquor store manager |
| 30212 | lithographer |
| 41903 | loan officer |
| 25302 | lobbyist |
| 23808 | locksmith |
| 15202 | locomotive engineer |
| 23911 | logger |
| 18808 | machine repairer |
| 18908 | machine tool operator |
| 24208 | machinist |
| 24404 | mail carrier |
| 25503 | manager, small business |
| 25010 | manicurist |
| 19704 | manufacturer's representative |
| 20202 | market research analyst |
| 37908 | material handler |
| 25202 | mathematician (statistician) |
| 25402 | mechanical engineer |
| 26802 | medical assistant |
| 20802 | medical laboratory technician |
| 21102 | medical records administrator |
| 21602 | medical records technician |
| 25604 | medical secretary |
| 25702 | medical technologist |
| 25902 | metallurgical technician |
| 25802 | metallurgist |
| 26102 | meteorologist |
| 26004 | meter reader |
| 21908 | millwright |
| 26205 | miner |
| 26302 | mining engineer |

| | |
|-------|---------------------------------|
| 26402 | minister |
| 26608 | molder (foundry) |
| 26712 | motion picture projectionist |
| 30708 | musical instrument repairer |
| 26902 | musician |
| 42402 | nuclear engineer |
| 22202 | nuclear medicine technologist |
| 27102 | nuclear reactor operator |
| 27002 | nurse anethetist |
| 22902 | nurse practitioner |
| 23202 | nurse, licensed practical (LPN) |
| 32302 | nurse, registered |
| 23710 | nursery school attendant |
| 22610 | nurse's aide |
| 27402 | occupational therapist |
| 27502 | oceanographer |
| 29308 | office machine operator |
| 24108 | office machine servicer |
| 27703 | office manager (supervisor) |
| 24602 | operating room technician |
| 28102 | optician |
| 42202 | optometric assistant |
| 28202 | optometrist |
| 28302 | orchestra leader |
| 28502 | osteopath |
| 02402 | painter (artist) |
| 28605 | painter (construction) |
| 24705 | paper hanger |
| 28710 | parking lot attendant |
| 28807 | parole officer |
| 28902 | pathologist |
| 28005 | patternmaker |
| 29004 | payroll clerk |
| 25102 | pediatrician |
| 29204 | personnel assistant (worker) |
| 29503 | personnel manager |
| 42002 | petroleum engineer |
| 29802 | pharmacist |
| 26502 | pharmacologist |
| 27212 | photoengraver |
| 30012 | photograph retoucher |
| 30102 | photographer |
| 35208 | photographic process worker |
| 30402 | physical therapist |
| 29402 | physical therapist assistant |
| 27602 | physician's assistant |
| 27802 | physicist |
| 30602 | physiologist |
| 30905 | pipefitter |
| 31005 | plasterer |
| 31105 | plumber |
| 31202 | podiatrist |
| 31307 | police officer |

| | |
|-------|---------------------------------|
| 31402 | political scientist |
| 03510 | porter (baggage man/woman) |
| 24504 | postal clerk |
| 31603 | postmaster/mistress |
| 31808 | powerhouse mechanic |
| 31712 | power plant operator |
| 27902 | priest |
| 32208 | printing press operator |
| 09704 | product demonstrator |
| 32102 | production planner |
| 32402 | proofreader |
| 29702 | prosthetist/orthotist |
| 32502 | psychiatrist |
| 32602 | psychologist |
| 32802 | public relations representative |
| 28402 | ppurchasing agent |
| 29112 | quality control technician |
| 29602 | rabbi |
| 31502 | radiation therapy technologist |
| 33202 | radio/tv announcer |
| 33302 | radio/tv engineer |
| 33102 | radio/tv program writer |
| 29908 | radio/tv repairer |
| 30802 | radiologic technologist |
| 33412 | railroad braker |
| 33512 | railroad conductor |
| 33703 | real estate agent |
| 33602 | real estate appraiser |
| 33804 | receptionist |
| 33902 | recreation leader |
| 22101 | reporter (newspaper) |
| 34504 | reservations agent |
| 11102 | residence hall director |
| 32002 | respiratory therapist |
| 24903 | restaurant/bar manager |
| 36802 | robot technician |
| 32708 | roller |
| 32905 | roofer |
| 35012 | sailor (seaman/woman) |
| 35102 | salary & wage administrator |
| 35403 | salesmanager |
| 35504 | sales person (general) |
| 34104 | sample distributor |
| 13902 | sanitarian |
| 36004 | secretary |
| 36104 | securities salesperson |
| 36208 | sewing machine operator |
| 36305 | sheetmetal worker |
| 36402 | ship captain |
| 36504 | shipping/receiving clerk |
| 36608 | shoe repairer |
| 34202 | singer |
| 37002 | social worker |

| | |
|-------|------------------------------------|
| 37102 | sociologist |
| 34302 | soil conservationist |
| 37602 | solar energy engineer |
| 38802 | sonographer |
| 34402 | speech-language pathologist |
| 35812 | stationary engineer |
| 00204 | statistical clerk |
| 07604 | stenographer |
| 37804 | stock clerk |
| 38005 | stonecutter |
| 24607 | store detective |
| 38205 | structural steel worker |
| 34702 | stunt performer |
| 38402 | surgeon |
| 38505 | surveyor, helper |
| 34802 | surveyor, land |
| 38908 | tailor, dressmaker |
| 39010 | taxicab driver |
| 02302 | teacher (art, music, speech, etc.) |
| 35302 | teacher aide |
| 40302 | teacher, adult education |
| 05702 | teacher, business |
| 12602 | teacher, elementary |
| 20402 | teacher, industrial arts |
| 30302 | teacher, physical education |
| 31902 | teacher, preschool/kindergarten |
| 36702 | teacher, secondary |
| 37302 | teacher, special education |
| 38102 | teacher, vocational agriculture |
| 35602 | technical writer |
| 39204 | telegraph-typewriter operator |
| 20705 | telephone installer/repairer |
| 39304 | telephone operator |
| 39502 | test engineer |
| 39904 | ticket agent |
| 40005 | tile setter |
| 40202 | time study analyst |
| 40405 | tool and die maker |
| 40504 | tool crib attendant |
| 40602 | tool designer |
| 37502 | tool programmer |
| 40812 | track worker (railroad) |
| 41103 | traffic manager (industrial) |
| 41203 | training and education manager |
| 35704 | travel agent |
| 41304 | travel clerk |
| 41410 | travel guide |
| 41512 | tree surgeon |
| 41612 | truck driver, tractor-trailer |
| 35902 | tv program director |
| 37404 | typist |
| 36902 | urban planner |
| 37702 | veterinarian |

| | |
|-------|----------------------------------|
| 38310 | waiter/waitress |
| 39112 | warehouse supervisor |
| 39612 | warehouse worker |
| 39808 | watch repairer |
| 38712 | water plant operator |
| 40102 | weather observer |
| 40705 | welder |
| 41008 | wire drawer |
| 40908 | word processing machine operator |
| 41702 | zoologist |

Appendix E

Careers by Gender Classification

| | Males % | Females % | Domin- ant Gender |
|---|------------|--------------|-------------------------|
| MANAGERIAL & PROFESSIONAL SPECIALTY | | | |
| Executive, administrative & managerial | 63 | 37 | M |
| Officials & administrators, public | 58 | 42 | N |
| Financial managers | 62 | 38 | M |
| Personnel & labor relations mgr. | 51 | 49 | N |
| Purchasing managers | 71 | 29 | M |
| Managers, marketing, advertising & public relations | 75 | 25 | M |
| Administrators, education & related fields | 52 | 48 | N |
| Managers, medicine & health | 38 | 62 | F |
| Managers, properties & real estate | 56 | 44 | N |
| Management-related occupations | 54 | 46 | N |
| Accountants & auditors | 55 | 45 | N |
| Professional specialty | 51 | 49 | N |
| Architects | 90 | 10 | M |
| Engineers | 94 | 6 | M |
| Electrical | 93 | 7 | M |
| Mechanical | 96 | 4 | M |
| Mathematical & computer Scient. | 64 | 36 | M |
| Computer systems analysts | 66 | 34 | M |
| Natural scientists | 78 | 22 | M |
| Health diagnosing occupa. | 85 | 15 | M |
| Physicians | 82 | 18 | M |
| Dentists | 96 | 4 | M |
| Health assessmt. & treating | 15 | 85 | F |
| Registered nurses | 6 | 94 | F |
| Therapists | 26 | 74 | F |

Note. Labor information from "Employment and earnings" by the U. S. Bureau of Labor Statistics, 34(1). 1987.
M = male dominated field; F = female dominated field; N = gender neutral field.

| | Males | Females | Dominant Gender |
|---|-------|---------|-----------------|
| | % | % | |
| Teachers, college & univ. | 64 | 36 | M |
| Teachers, except college | 27 | 73 | F |
| Prekindergarten and kinder. | 2 | 98 | F |
| Elementary | 15 | 85 | F |
| Secondary | 45 | 55 | N |
| Counselors, educ. & vocational | 46 | 54 | N |
| Librarians, archivists, curators | 17 | 83 | F |
| Librarians | 14 | 86 | F |
| Social scientists & urban plnrs. | 54 | 46 | N |
| Psychologists | 47 | 53 | N |
| Social, recreation & relig. wkrs | 53 | 47 | N |
| Social workers | 35 | 65 | F |
| Lawyers & judges | 82 | 18 | M |
| Writers, artists, entertainers & athletes | 55 | 45 | N |
| TECHNICAL, SALES, & ADMIN. SUPPORT | 35 | 65 | F |
| Technicians & related support | 52 | 47 | N |
| Health technologists & techs. | 16 | 84 | F |
| Licensed pract. nurses | 2 | 98 | F |
| Engineering & rel. technologists | 82 | 18 | M |
| Electrical & electronic techs. | 87 | 13 | M |
| Science technicians | 72 | 28 | M |
| Technicians, except above | 62 | 38 | M |
| Computer programmers | 66 | 34 | M |
| Sales occupations | 52 | 48 | N |
| Supervisors & proprietors | 69 | 31 | M |
| Sales reps, finance & bus. servs | 58 | 42 | N |
| Insurance sales | 71 | 29 | M |
| Real estate sales | 49 | 51 | N |
| Securities & financial sales | 75 | 25 | M |
| Sales reps, commodities | 82 | 18 | M |
| Sales workers, retail & personal | 31 | 69 | F |
| Cashiers | 17 | 83 | F |
| Sales related occupations | 35 | 65 | F |
| Administ. support incl. clerical | 20 | 80 | F |
| Supervisors | 31 | 59 | N |
| Computer equip. operators | 31 | 69 | F |
| Computer operators | 33 | 67 | F |
| Secretaries, steno. & typists | 2 | 98 | F |
| Secretaries | 1 | 99 | F |
| Typists | 5 | 95 | F |

| | Males | Females | Dominant Gender |
|--|----------|----------|-----------------|
| | <u>%</u> | <u>%</u> | |
| Duplicating, mail & other office machine operators | 39 | 61 | F |
| Communications equip. operators | 13 | 87 | F |
| Telephone operators | 12 | 88 | F |
| Mail & message distrib. occupa. | 66 | 34 | M |
| Postal clerks exc. mail carrier | 56 | 44 | N |
| Material recording, scheduling & distributing clerks | 60 | 40 | N |
| Adjusters & investigators | 28 | 72 | F |
| Misc. administrative support | 15 | 85 | F |
| General office clerks | 19 | 81 | F |
| Bank tellers | 8 | 92 | F |
| Data entry keyers | 9 | 91 | F |
| Teachers' aides | 6 | 94 | F |
| SERVICE OCCUPATIONS | 39 | 61 | F |
| Private household | 4 | 96 | F |
| Child care workers | 3 | 97 | F |
| Cleaners & servants | 5 | 95 | F |
| Protective service | 88 | 12 | M |
| Firefighting & fire prevention | 98 | 2 | M |
| Police & detectives | 89 | 11 | M |
| Guards | 82 | 18 | M |
| Service except priv. househld. & protective | 35 | 65 | F |
| Food preparation & serv. occupa. | 37 | 63 | F |
| Bartenders | 51 | 49 | N |
| Waiters & waitresses | 15 | 85 | F |
| Cooks, except short-order | 49 | 51 | N |
| Short-order cooks | 63 | 37 | M |
| Food counter, fountain & rel. | 21 | 79 | F |
| Kitchen workers food preparat. | 24 | 76 | F |
| Waiters' & waitresses assts. | 61 | 39 | M |
| Health service occupations | 10 | 90 | F |
| Dental assts. | 1 | 99 | F |
| Health aides, except nursing | 17 | 83 | F |
| Nursing aides, orderlies, & attendants | 9 | 91 | F |
| Cleaning & building occupations | 58 | 42 | N |
| Maids & housemen | 15 | 85 | F |
| Janitors & cleaners | 69 | 31 | M |
| Personal service occupations | 20 | 80 | F |
| Barbers | 83 | 17 | M |
| Hairdressers & cosmetologists | 11 | 89 | F |
| Attendants, amusement & rec. | 57 | 43 | N |

| | Males | Females | Dominant Gender |
|---|----------|----------|-----------------|
| | <u>%</u> | <u>%</u> | |
| Public transportation attend. | 23 | 77 | F |
| Welfare service aides | 8 | 92 | F |
| Child care workers, exc. priv. household | 3 | 97 | F |
| PRECISION PRODUCTION, CRAFT & REPAIR | 91 | 9 | M |
| Mechanics & repairers | 96 | 4 | M |
| Mechanics & repairers, exc. supervisors | 97 | 3 | M |
| Vehicle & mobile equip. mech. | 99 | 1 | M |
| Automobile mechanics | 99 | 1 | M |
| Electrical & electronic equipment repairers | 91 | 9 | M |
| Telephone installers & repairers | 87 | 13 | M |
| Construction trades | 98 | 2 | M |
| Construction trades, exc. supervisors | 98 | 2 | M |
| Carpenters | 99 | 1 | M |
| Extractive occupations | 98 | 2 | M |
| Precision production occupa. | 77 | 23 | M |
| OPERATORS, FABRICATORS & LABORERS | 75 | 25 | M |
| Machine operators, assemblers & inspectors | 60 | 40 | N |
| Textile apparel & furnishings machine operators | 20 | 80 | F |
| Textile sewing mach. ops. | 9 | 91 | F |
| Pressing machine ops. | 28 | 72 | F |
| Fabricators, assemblers, & hand working occupations | 68 | 32 | M |
| Production inspectors, testers samplers, & weighers | 50 | 50 | N |
| Transportation & material moving occupations | 91 | 9 | M |
| Motor vehicle operators | 89 | 11 | M |
| Trucks, heavy & light | 96 | 4 | M |
| Transportation occupations, exc. motor vehicles | 98 | 2 | M |
| Material moving equipment oper. | 96 | 4 | M |
| Industrial truck & tractor operators | 95 | 5 | M |
| Handlers, equipment cleaners, helpers & laborers | 84 | 16 | M |
| Feight, stock & material handlrs. | 84 | 16 | M |

| | Males | Females | Domin- ant Gender |
|-----------------------------------|----------|----------|-------------------------|
| | <u>%</u> | <u>%</u> | |
| Laborers, exc. construction | 83 | 17 | M |
| FARMING, FORESTRY, & FISHING | 84 | 16 | M |
| Farm operators & managers | 86 | 14 | M |
| Other agricultural & rel. occupa. | 82 | 18 | M |
| Farm workers | 76 | 24 | M |
| Forestry & logging occupa. | 96 | 4 | M |
| Fishers, hunters, & trappers | 91 | 9 | M |

Appendix F

Proportions of Men and Women in College Majors at the
University of Maryland at College Park, Fall 1988

| Major | Males % | Females % | Gender Classifi- cation |
|---|------------|--------------|-------------------------------|
| College of Agriculture: | | | |
| Agric. Engineering | 80 | 20 | M |
| Agric. & Extension Education | 00 | 100 | F |
| Animal Sciences | 21 | 79 | F |
| National Resource Mgmt. | 71 | 29 | M |
| College of Arts and Humanities: | | | |
| American Studies | 42 | 58 | N |
| Dance | 11 | 89 | F |
| Design | 37 | 63 | F |
| East Asian Language | 64 | 36 | M |
| English | 36 | 64 | F |
| French | 25 | 75 | F |
| History | 61 | 39 | M |
| Jewish Studies | 56 | 44 | N |
| Music | 49 | 51 | N |
| Radio, T.V. & Film | 55 | 45 | N |
| Russian | 27 | 73 | F |
| Speech Communication | 31 | 69 | F |
| Undecided | 39 | 61 | F |
| College of Behavioral and Social Sciences: | | | |
| Anthropology | 35 | 65 | F |
| Criminal Justice | 66 | 34 | M |
| Criminology | 55 | 45 | N |
| Economics | 75 | 25 | M |
| Government & Politics | 60 | 40 | N |
| Psychology | 29 | 71 | F |
| Sociology | 24 | 76 | F |

| Major | Males % | Females % | Gender Classifi- cation |
|---|------------|--------------|-------------------------------|
| College of Business & Management: | | | |
| Accounting | 50 | 50 | N |
| Finance | 66 | 33 | M |
| General Business & Management | 61 | 39 | M |
| Management Science | | | |
| Statistics & Decision Information Services | 58 | 42 | N |
| Marketing | 44 | 56 | N |
| Personnel & Labor Relations | 26 | 74 | F |
| College of Computer, Mathematics & Physical Sciences: | | | |
| Computer Science | 70 | 30 | M |
| Geology | 70 | 30 | M |
| Mathematics | 63 | 37 | M |
| College of Education: | | | |
| Early Childhood | 01 | 99 | F |
| Industrial Technology | 91 | 09 | M |
| Special Education | 07 | 93 | F |
| College of Engineering: | | | |
| Aerospace Engineering | 83 | 17 | M |
| Chemical Engineering | 63 | 37 | M |
| Civil Engineering | 81 | 19 | M |
| Electrial Engin. | 84 | 16 | M |
| Fire Protection | 84 | 16 | M |
| Mechanical Engineering | 85 | 15 | M |
| Nuclear Engineering | 82 | 18 | M |

| Major | Males % | Females % | Gender Classifi- cation |
|---|------------|--------------|-------------------------------|
| College of Human Ecology: | | | |
| Consumer Economics | 60 | 40 | N |
| Experimental Foods | 20 | 80 | F |
| Fashion Merchandising | 04 | 96 | F |
| Management & Consumer Studies | 43 | 57 | N |
| Textiles Marketing | 14 | 86 | F |
| College of Journalism: | | | |
| Journalism | 25 | 75 | F |
| College of Life Sciences: | | | |
| Biochemistry | 56 | 44 | N |
| Genetics | 29 | 71 | F |
| Microbiology | 41 | 59 | N |
| Zoology | 50 | 50 | N |
| College of Physical Education, Recreation & Health: | | | |
| Health Education | 12 | 88 | F |
| Kinesiological Sciences | 45 | 55 | N |
| Recreation | 34 | 66 | F |
| College of Undergraduate Studies: | | | |
| General Studies | 43 | 57 | N |
| Pre-Architecture | 70 | 30 | M |
| Pre-Business | 59 | 41 | N |
| Pre-Education Social Studies | 53 | 47 | N |
| Pre-Engineering | 86 | 14 | M |

Note. This list contains only those majors listed by participants and is not a complete list of majors at UMCP. Information is from "Enrollment by major, UMCP fall 1988" by the Office of Institutional Studies, University of Maryland at College Park. M = predominantly male, F = predominantly female, N = gender neutral.

Appendix G

Presidents' Student Organizations

American Collegiate Entrepreneurs
Adhan
African Student Association
Agape Campus Ministry
Agriculture Student Council
Alpha Chi Omega
Alpha Chi Sigma
Alpha Epsilon Rho
Alpha Gamma Delta
Alpha Kappa Alpha
Alpha Lambda Delta
Alpha Omicron Pi
Alpha Phi
Alpha Phi Omega
Alpha Phi Omega
Alpha Pi Alpha
Alpha Queen
American Institute of Aeronautics & Astronautics
American Institute of Chemical Engineers
American Nuclear Society
American Society for Personnel Administration
American Society of Safety Engineers
Anthropology Student Association
Arnold Air Society
Badminton Club
Bangladesh Student Association
Beta Alpha Psi
Beta Theta Pi
Black Business Society
Bowling Club
Cambridge Area Council
Canterbury
Caribbean Student Association
Chi Alpha Christian Fellowship
Chi Epsilon
Chinese Culture Club
Chinese Student Association
Chosen Generation Ministry
Circle K
Collegiate Association for the Research of Principles
College Young Democrats
Collegiate Future Farmers of America
Criminal Justice Student Association
Criminal Justice Student Association
Dancers Against Cancer
Delta Chi
Delta Gamma
Delta Phi Epsilon
Delta Sigma Pi

Delta Tau Delta
Delta Upsilon
Design Association
Diamondback
Egyptian Cultural Club
Elegant
E. C. O.
Eta Kappa Nu
Eta Kappa Nu
Etzel
Freedom
Gay & Lesbian Student Union
General Honors Program
Geology Club
German Club
Great Commission Students
Gymkana Troupe
Hellenic Club
Hillel Student Organization
Homecoming Committee
Hong Kong Club
Ice Hockey
Indian Student Association
Indonesian Student Association
Interfraternity Council
International Student Association
Intervarsity Christian Fellowship
Japanese Culture Club
Jewish Student Union
Kappa Sweetheart Kourt
LDSSA
Leonardtown Area Council
Maryland Association of Midshipment
Maryland Awareness Coalition
Maryland Danceline
Maryland Floor Hockey Club
Maryland Gospel Choir
Maryland Honor Guard
Maryland Images
Maryland Images
Maryland Space Futures Association
Maryland Tennis Club
MaryPIRG
The Medium
Men's Rugby Club
Minority Computer Science Society
Minority Psychology Society
Mortar Board
Motorcycle Club
National Association of Accountants
Northern American Student Center
Organization of American States
PACE

Pakistani Student Association
Pan-Hellenic Council
Personal Computing Association
Phi Beta Lambda
Phi Sigma Kappa
Phi Sigma Kappa
Phi Sigma Pi
Phi Sigma Sigma
Pi Beta Phi
Pi Kappa Alpha
PreMed Society
Psi Chi
Public Relations Student Society of America
Racquetball Club
Recreation Society
Redline Booster Club
Reformed University Fellowship
Residential Halls Association
Resident Life
Russian Club
SEE Productions
Sigma Chi
Sigma Delta Tau
Sigma Gamma Rho
Sigma Phi Epsilon
Sigma Pi
Ski Club
Society of Automotive Engineers
Society of Hispanic Engineers
Society of Iranian Honor Students
Society of Professional Journalists
Student Alumni Board
Student Dance Association
Student Government Association
Student Government Association
Stamp Union Program Council
Stamp Union Program Council
Swing & Dance Club
Tae Kwon Do Club
Tau Epsilon Phi
Tau Kappa Epsilon
Terrapin Trail Club
Thai Student Association
Tri Delta
University Commuters Association
University Pro Life Organizaiton
University Sports Car Club
Vedic Cultural Society
Veteran's Club
Veterinary Science Club
Vietnamese Students Association
Water Polo Team
WMUC Radio

Women's Center
Women's Softball Club
Women's Soccer Team
Wonhwa-Do Karate Association
Zoology Undergraduate Student Committee

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