Differential Effects of Marriage Depending Upon Sex for Students in Professional Programs.

Patricia Cawunder

Louisiana State University and Agricultural & Mechanical College

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Differential Effects of Marriage Depending Upon Sex for Students in Professional Programs

The Louisiana State University and Agricultural and Mechanical Col. Ph.D. 1982

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DIFFERENTIAL EFFECTS OF MARRIAGE DEPENDING UPON SEX FOR STUDENTS IN PROFESSIONAL PROGRAMS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in

The Department of Psychology

by

Patricia Cawunder
B.A., Trinity College, 1965
M.S. Northeastern University, 1971
August 1982
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the student-humand being role conflict.
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ABSTRACT

The major hypothesis of this study was that the married state conveys a performance benefit to the male student and is a detriment to the female student. Differential effects of marriage by sex were hypothesized to be related to traditional sex-role concepts such that married female students receive less spouse support and have more role conflict than the male. The hypotheses were tested with law students and veterinary medical students. Performance was measured with GPA, and measures of spouse support and role conflict were developed from weightings of judges for items in a structured telephone interview.

Different results were obtained for veterinary students who were accepted the first time they applied than for those who were not accepted and reapplied. For veterinary students who were accepted the first time they applied, the main hypothesis was supported, and married female students had significantly more role conflict than males. For veterinary students who had applied previously, married students of both sexes performed significantly better than single students. Married students who had applied previously received significantly higher levels of spouse support than did married students who were accepted the first time they applied. For law students, the major hypothesis was not supported, and there were not significant differences by sex for role conflict or spouse support.

Differences between the two groups of veterinary students were interpreted as reflecting different levels of motivation. Differences
between veterinary and law students were believed to be related to different sex-role concepts. Veterinary medical students are more likely to be more stereotypically male or female, while law students of both sexes are more likely to hold moderately masculine self-concepts. There was evidence that married female law students are highly strategic in minimizing role conflict when it will directly affect performance. For males, it was postulated that there are differences in criteria for spouse selection, with the veterinary medical student being more likely to select a wife with traditional sex-role concepts.
INTRODUCTION

We are living in a time of changing concepts of the male role, a woman's place and the institutions of marriage and the family. Although some writers forecast impending doom, others see the changes as increasing human potential. Traditionally, the man's role in the family was that of breadwinner and the woman's place was in the home rearing her family. Now nearly fifty percent of married women belong to the labor force (U.S. Bureau of the Census, 1979). Although most of the jobs they hold are clerical and service positions, there has been a sharp increase in the last decade of women students in professional programs in medical, law and veterinary school (Andberg, Follett & Hendel, 1979; Jacobs, 1975; McGrath & Zimet, 1977). Since entry into these programs is highly competitive, these women have demonstrated competence and motivation to achieve a place in a previously all-male realm. They do not fit the stereotypical female role.

People who counsel students in these programs report that married women are a troubled group (Note 1). Advocates of women's liberation have argued for some time that the institution of marriage fulfilled the needs of the male partner at the expense of the female partner (Greer, 1970, p. 340; Laws, 1971). Some recent studies have suggested that a married woman is at a disadvantage competing professionally with a married family-free man (Hochschild, 1975; Koester & Clark, Note 2). The purpose of this study is to investigate the effects of gender and marital status on performance in an academic program, and to attempt to identify related factors.
Different characteristics of human experience depending on gender, marital status and their interaction have been addressed by psychologists, sociologists and anthropologists. Before an examination of the relevant theories in the social sciences, a historical review of the relative status of men and women and their marital roles will be presented.

**Historical Perspective**

A more complete review can be found in Bernard Murstein's *Love, Sex and Marriage Through the Ages* (1974), which is the primary source for this description. In Western history, with diverse economic and political arrangements, there has been consistency with respect to marital roles and the relative status of men and women. Societies have been organized in a patriarchal way, with women viewed as inferior to men, and a wife's position and status inferior to that of her husband.

Myths about the power, motives and special qualities of women, which reappear throughout history in various forms, can be organized around three themes: woman as evil, woman as a fertility goddess and earth mother, and woman as a sexual being (Hyde and Rosenberg, 1976; Williams, 1977). Carl Jung identified mythological themes as making up the collective unconscious in the personality of each human being. According to his theory, part of the task of achieving wholeness is to assimilate these themes from the collective unconscious.

Examples of woman as evil are Eve, who ate the forbidden fruit and became the source of original sin, responsible for the fall of
humankind; and Pandora, the lady who opened the box containing all of the evils of the world. In Chinese mythology, the two forces Yin and Yang correspond to feminine and masculine, and Yin, the feminine component, is the dark or evil side of nature.

Goddesses of fertility and motherhood include Astarte (Palestinian and Egyptian mythology), Ishtar (Babylonian), Isis (Egyptian) and Aphrodite and Cybele in Greek mythology. Although those goddesses were valued for their fertility, they usually also have a dark side, a destructive power or the ability to take away life. The goddess Aphrodite also represented love and sexuality. The sexuality of women has often been feared; the sex goddess can also be a castrating female. Such myths have been found among North American Indian tribes and in Siberia, India and New Guinea (Hyde & Rosenberg, 1976). Myths of various cultures explain the phenomenon of menstruation as a result of the female genitals being a wound, and in some creation myths, woman originated as a result of a castration. The influences and remnants of these mythological characterizations of women: as evil, earth mother and sexual being, can be seen throughout recorded history.

The view of marriage presented in the Old Testament shows the "subservient but companionate" role played by women in marriage (Murstein, 1974, p. 44). The model wife is portrayed in the Book of Proverbs as virtuous, hardworking and kind; there is no comparable description of the model husband. In Homeric Greece, a woman had no choice about marital partners and could be traded or loaned, but she played an important role in rearing the children and supervising the household. There is some disagreement about the role of women during
the Golden Age of Greece and Rome (Duberman, 1975, pp. 5-6, 21; Murstein, pp. 49-85) with some authors claiming that women had a high degree of independence, and others believing that her position was more limited. Plato felt that the only difference between the sexes was that women were physically weaker (Schaeffer, 1971, p. 3), and recommended equal education for both sexes (Murstein, p. 53). But Aristotle felt that it was natural for a husband to rule his wife, because, "the male is by nature fitter for command than the female, just as the older and full grown is superior to the younger and more immature" (cited in Feldman, 1974, p. 82). In ancient Rome, women had no political rights, but could inherit property. Some women became very wealthy.

Christianity strengthened the status of women by changing the double standard in divorce and adultery. Prior to this time, the consequences were quite different for men than for women. By forbidding divorce and adultery for both sexes, the Church made women less subject to abuse. The Catholic Church is generally credited with elevating women to spiritual equality with men. Saint Paul (Galatians 3:28) wrote, "There is neither Greek nor Jew, neither slave nor free, neither male nor female, for you all are one in Christ Jesus". Arrangements in this world did not change much, however. Paul believed that man was not made for woman, "but the woman for the man" (I Corinthians 11:9) and advised, "Let the woman learn in silence, with all subjection" (I Timothy 2:11). Early fathers of the church were concerned about the affinity of women with the devil; women were required to cover their heads in church because demons most readily
entered women with long hair (Murstein, p. 94). In 585 A.D. the Council of Macon debated about whether women had souls; the resolution that they did passed by one vote.

In the Middle Ages, a woman could inherit property, but a married woman could not represent herself in court, engage in business transactions, or make a will. These restrictions did not apply to single women and widows (Murstein, p. 126). Thomas Acquinas considered the inferiority of women natural because in "nature, woman is defective and misbegotten" (cited in Murstein, pp. 127-128). In the poetry and songs about courtly love, romantic love of a man for an unobtainable woman was idealized; practical arrangements between husbands and wives, however, were unaffected. In the late Middle Ages, the evil woman theme, sanctioned by the Church in Malleus Malleficarum (1484), emerged in the torture and death of women suspected of being witches.

During the Renaissance and Reformation, the status of some upper-class women improved. Education became possible, and a number of women (Elizabeth of England, Catherine de Medici, Mary of Scotland) were powers of state. However, Martin Luther, a leader of the Protestant Reformation, held that women had been created to: "remain at home, sit still, keep house, and bear and bring up children." (cited in Murstein, p. 175). In the first systematic treatment of sex differences, Jean Huarte in 1575 attributed male superiority to the different humoral qualities of the sexes (Shields, 1975). Heat and dryness were characteristics of the male principle, while moisture and coolness were feminine. Dryness was related to the maintenance of intelligence. Another physiological explanation for male superiority was advanced by
Guillaume Bouchet (Murstein, p. 175), who claimed that women were more humid due to an accumulation of menstrual blood in their organs. The French essayist Montaigne, although relatively liberal, maintained that: "Reason, prudence and the offices of friendship are better found among men, and therefore it is, that they govern the affairs of the world" (cited in Murstein, p. 176).

The seventeenth and eighteenth centuries, noted as an era of rationalism and enlightenment in Europe, did little to change the legal and political status of women. They were viewed as limited and child-like. Jean Jacques Rousseau noted that, "little girls always dislike learning to read and write, but they are always ready to learn to sew." (cited in Murstein, p. 205). The legal situation, that upon marriage husband and wife became one, and that one was the man, did not change. Women did, however, achieve more social freedom. A few women began to protest. Mary Wollstonecraft, an English woman, is usually cited as the first feminist. In her book, A Vindication of the Rights of Women (1792), she advocated equal educational opportunity for women and hypothesized that the social restrictions placed on women were directly responsible for their purportedly defective nature. In the United States, Abigail Adams wrote to her husband John, who was then engaged in drafting the Declaration of Independence and the Constitution, and entreated him not to put such unlimited power in the hand of husbands because "all men would be tyrants if they could" (cited in Clower, 1979, p. 285).

The German philosophers Hegel and Schopenhauer advanced reasons for the limited role of women; the good German housewife concentrated
on Kinder, Kuche and Kirche. But men of science discovered the particular physiological components of female inadequacy. Gall, Spurzheim, Alexander Bain and George Romanes all related differences in brain characteristics to women's mental inferiority (Shields). Darwin (cited in Murstein, p. 261) and Francis Galton (cited in Shields), both supported female intellectual inferiority. Darwin related it to greater male variability; and Havelock Ellis, noting evidence of more genius and mental retardation among men than women, believed that the narrower range of intelligence in woman made her uniquely suited to "the sphere of concrete practical life" (cited in Shields). Edward Thorndike advanced a similar argument to support excluding women from the professions requiring gifted individuals. He recommended that women be channeled into nursing, teaching, medicine or architecture, where the average level is the essential (cited in Shields).

Some writers were questioning the doctrine of male superiority. John Stuart Mill (1869), in his essay On the Subjection of Women argued that any supposed differences in mental ability were due to environmental circumstances. In Ibsen's play A Doll House, Nora revolts against the child-like treatment of her patronizing husband and leaves him. Louisa May Alcott, asked to give advice to young women, recommended the sweet independence of spinsterhood (cited in Barnett and Baruch, 1978, p. 156). But in Europe and in America, a wife had no legal existence separate from her husband, and her spiritual superiority was emphasized. The logical implication of her spiritual nature was the need to protect so pure a person from experiences
outside her home. The separate roles for husbands and wives, the man as the provider and master of the family, and the woman as his obedient helpmate, continued. Although World War I witnessed an end to the notion that it was unnatural for women to work, and, after a long struggle, feminists in the United States got the right to vote in 1920, traditional stereotypes persisted. A 1903 poll reported in Ladies Home Journal showed that women wanted a husband with strength of character (42%) and business ability (25%), while 74 percent of men favored a domestic tendency in their spouse (Halsted, 1903, 1904).

In the period before World War II, there was little change in women's status. However, the proportion of married women who worked increased to about 15%, the median age of female workers increased, and white-collar work, especially clerical jobs, became an important category of women's employment (Chafe, 1972, pp. 55-56). There was an increase in sexual freedom, but sex-roles of husbands and wives did not change. It appeared that the greatest obstacle to economic equality was the existing distribution of sex roles (Chafe, pp. 96-97). During World War II, when it was patriotic for married women to work, and for employers to hire them into previously male occupations, there was a significant increase in women's employment and in the breadth of jobs done well by women. Erwin Canham of the Christian Science Monitor described the war years as: "the period when women rose to full stature" (cited in Chafe, p. 149).

But the post-war era was a period of triumph for the anti-feminist position. Although their ideas were sometimes taken out of context, psychologists Sigmund Freud and Helen Deutsch and sociologists Talcott
Parsons and Robert Bales presented theories that were used to reinforce the notion that a woman's place was in the home (Chafe, pp. 209-210; Murstein, p. 407; Rossi, 1964). Freud's psychology of women, with its phallocentric bias and emphasis on the biological functions of a woman; the Freudian emphasis on early childhood experiences as critical in personality development (Storr, 1972); and Deutsch's view of femininity as passive and masochistic, provided a quasi-scientific basis for educators, marriage counselors, and other advisors to reinforce the withdrawal of American women from the mainstream of work. Talcott Parsons and Robert Bales added the weight of sociology with their dichotomy of the man's role in the family as active and instrumental, while the women's role is expressive, dealing with the emotional and social needs of the family.

In the last twenty years, the pendulum has swung back toward more equality for women. Changing sex-roles concepts and concepts of marital roles will be documented later in the text, but generally very powerful social, political, economic and technological changes are having an effect on concepts of appropriate adult behavior. Many factors are cited to explain or account for the changes: the increased life expectancy of women (Sullerot, 1971, p. 47); the decreased birth rate and availability of birth control; technological changes in home care and products that have reduced the work required to manage a home; the civil rights, anti-war and women's liberation movements; and the increased labor force participation by married women.

The next section is a brief summary of early formulations of the psychology of women.
Psychology of Women

Sigmund Freud advanced the first scientific psychology of women (Clower, p. 297). Before his theory is presented, two caveats are in order. Freud himself frequently referred to the speculative nature of his theory. He ended his essay on Femininity with the following: "If you want to know more about femininity, you must interrogate your own experience, or turn to the poets, or else wait until science can give you more profound and more coherent information." Secondly, Freud did not expect that his theory would become dogma. In a 1909 letter to Jung, he wrote that Jung's notion that his errors would be worshipped as relics amused him, but he was sure that younger men would demolish everything that was not solid as fast as they could (cited in Clower, p. 300).

Freud's theory of development held that male and female experience was the same until the phallic stage, when the boy experiences castration anxiety and resolves the oedipal conflict by identification with the father. The girl discovers that she has no penis and believes that she was castrated and is thus doomed to inferiority. Her desire for a penis, penis envy, leads to a wish to be impregnated by the father and is the basis for maternal instinct, since a male child would fulfill her need for the special organ. In the boy, his identification with the father to prevent castration leads to the formation of a strong superego. Since the girl has already been castrated, her superego formation is much weaker, and accounts generally for women's weak social interest, and lack of concern with justice. Developmentally, a girl's options for resolution of penis
envy are three: (a) she can totally renounce sexuality, which leads to neurosis; (b) she can deny the fact of not having a penis by continuing clitoral masturbation, which leads to a masculinity complex, and possibly to homosexuality or an intellectual profession; or (c) she can give up clitoral stimulation and become passive. The latter action, which is the course of normal female development, leads to a change of erotogenic zone from the "phallic" clitoris to the vagina. The shift is characteristic of the mature woman because to be able to have orgasm only by clitoral stimulation is sexually immature. The developmental tasks of the girl are more difficult than for the boy and can lead to frigidity, and do lead to increased narcissism, vanity and shame in the adult woman.

Helen Deutsch, a follower of Freud, extends some of his concepts in her Psychology of Women (1944). Central to her theory of femininity is the triad of personality traits of narcissism, passivity and masochism. Varying amounts of these traits in women account for Deutsch's feminine personality types. She also defined the masculinity complex in women, which is characterized by predominantly active and aggressive tendencies that are in conflict with the feminine inner world. She saw masculinity and femininity as enemies of one another; thus a woman who is intellectual loses her valuable feminine qualities.

Other psychoanalysts, Karen Horney (1926), Alfred Adler (1927), Clara Thompson (1943), and Zilboorg (1944), challenged Freud's formulation of feminine development, and emphasized social and cultural
factors, rather than woman's perception of her fundamental anatomical inferiority.

As Freud predicted, recent scientific studies on sexuality have greatly increased our understanding of female development (e.g. the work of Kinsey, and Masters and Johnson, reported in Sherfey, 1966). Many psychoanalysts acknowledge the limitations in Freud's theory (Chodoff, 1966; Clower, 1979; Cohen, 1966; Gelb, 1973; Marmor, 1968; Paley, 1979; Salzman, 1967; Seidenberg, 1970) but few of them are as direct as Erich Fromm (1980, p. 6) who said: "I believe that his concept that half of mankind is biologically, anatomically and psychically inferior to the other half is the only idea in his thinking which seems to be without the slightest redeeming feature, except as a portrayal of a male-chauvinistic attitude." A recent book by Sherman (1971) reviews the research evidence for Freud's conception of female development and finds very little support for his hypotheses.

One thing that is apparent from this historical review is the ease with which writers, philosophers and social scientists incorporate existing social patterns into their theories. The psychological theory of cognitive dissonance, and balance models of cognitive consistency, suggest the relationship between different concepts and personal behavior that could be jeopardized if one held beliefs that were in conflict with current social norms. The Meadian symbolic-interaction perspective suggests ways in which people are socialized into the prevailing cultural system.
Two authors who have addressed the issue of prejudice have commented on concepts about women. Allport, in his book, *The Nature of Prejudice* (1958), wrote that, for some people, "women are viewed as a wholly different species from men, usually an inferior species" (p. 32). Gunnar Myrdal (1944), in an appendix to his classic study of the treatment of blacks in America, noted similarities between treatment of blacks and women, including myths about the contented women who did not want equal opportunities, just as myths were created about the contented blacks.

Bertrand Russell, in an essay "Ideas that Have Harmed Mankind," discussed the cost to humanity of male domination and ended with this:

All this has now more or less ended in civilized countries, but it will be a long time before either men or women learn to adapt their behavior completely to the new state of affairs. Emancipation always has at first certain bad effects; it leaves former superiors sore and former inferiors self-assertive. But it is to be hoped that time will bring adjustment in this matter as in others (1950, p. 159).

The investigation described here constitutes an examination of the adaptive process between married men and women, when one of them is a student in a professional program.

The next section is a discussion of issues related to male and female, and husband and wife.

**Related Issues**

The study reported here was an investigation of the interaction effect of sex (male and female) and marital status (single and married). Different areas of social science have focused on different aspects of the problem. Psychology, with its focus on the individual,
has examined sex differences, sex-role concepts, and the development of behavior patterns related to one's gender and sex-role concepts. Anthropologists, in attempting to understand an institution such as the family, compare its manifestation in different cultures at different points in history. Anthropologists have examined both sex differences and marital role differences. Sociology has emphasized roles, particularly the roles of husband and wife and mother and father. The next section is a review of theories and research related to sex differences.

**Male and Female**

Because of some confusion about terms, related to the complexity of the issues, some definitions will be made (Stoller, 1968).

- **Gender** is the psychological connotation of maleness or femaleness that results in masculinity and femininity.

- **Gender identity** refers to the awareness of belonging to one of the two sexes.

- **Gender role** refers to the overt behavior one displays to others to indicate one's gender to them.

- **Sex roles** are the parts society reserves for each gender.

These definitions highlight some of the problems with research in this area. There is a need to distinguish sex differences from gender differences (Vaughter, 1976, p. 150), gender roles from sex role concepts, and the influence of an individual's sex-role concepts in any investigation of sex differences (Lenney, 1979; Sayers, 1979, pp. 51 - 54; Vaughter, p. 151). In a research study, self-report of gender role can be obtained, for example, with an instrument such as Bem's Sex Role Inventory (1974). The same instrument could be used to obtain sex-role
concepts held by the subjects by asking them to respond to the items as they thought most men, or most women, would respond.

Another problem with research in this area is that significant differences in means are reported, while in fact the distributions overlap a great deal. As Maccoby and Jacklin (1974) point out, a bias in favor of differences is increased because the null hypothesis is being tested. Findings of no significant differences are uninteresting, unlikely to be written up, and even more unlikely to get published. With any mean difference, a large sample of subjects will usually yield significant differences (Sherman, 1971, p. 13).

Still another difficulty relates to the constructs of masculinity and femininity. While they have been considered as totally separate types, or as opposite poles on a continuum, some authors (Hyde and Rosenberg, 1976; Sears, 1965, cited in Cairns, 1979, p. 274) argue that they are multi-dimensional and very complex notions.

An interesting approach is that taken by Bem (1974), in which masculinity and femininity are considered to be two separate dimensions. Individuals whose scores are high on one dimension and low on the other are considered to have that gender role; individuals with high scores on both dimensions are labeled androgynous. Androgyny refers to people with flexible response styles, such that they can act in a stereotypically masculine or feminine way depending on the situation. Although there are methodological problems with the construct, most reviews of the literature do show some support for the notion that the individual who conforms to his/her stereotypic sex-role may not be the ideal of psychological health; rather the
androgynous individual, who is more psychologically flexible, may be better able to function in this complex society (Kelly and Worell, 1977; Lenney, 1979; Williams, 1979).

Some personality theorists have advanced similar notions. Carl Jung's concept of the feminine component, the anima, which a man must integrate into his personality, and the animus which the woman must integrate into her personality is an example. Jung believed that personal wholeness could only be achieved by a full awareness of and integration of one's contrasexuality (Ulanov, 1971, p. 140). Abraham Maslow, in his investigation of self-actualizing people, found that they did not distinguish between the roles of the two sexes, and could readily behave in the opposite sex role (1954, pp. 245-286). Carl Rogers, in his book, Becoming Partners: Marriage and its Alternatives (1972), mentions the dissolution of roles as one of the four themes that emerge from his study of marriages that "work" (pp. 199-207).

**Development of gender identity, sex-role concepts and gender role.**

There are four major theories in psychology of the development of these constructs: the psychoanalytic model, differential reinforcement, modelling or observational learning, and Kohlberg's cognitive developmental theory. A brief account of Freud's theory of difference between the sexes was presented earlier. He hypothesized that in the resolution of the oedipal or electra complex, the child permanently introjects the same-sex parent. The theory of differential reinforcement holds that other people in the child's environment
reinforce sex-appropriate behavior and discourage behavior that conflicts with stereotypic sex-roles. Modelling or observational learning refers to the process of observing and imitating others of the same sex.

Kohlberg's cognitive developmental theory (1966) hypothesizes that a child must first acquire gender identity ("I'm a girl.") and form sex-role concepts of appropriate behavior. Because the child values positively those objects and acts consistent with her or his gender identity, the child behaves in sex-appropriate ways. Currently there is not a consensus about which of these theories has the most explanatory power; they probably all reflect components of the process.

Development of identity. Some personality theorists have related roles to the establishment of an identity. Erik Erikson, in discussion of the formation of ego identity, said the following:

One may suspect that all identity is conformist, that a sense of identity is achieved primarily through the individual's complete surrender to given social roles and through his unconditional adaptation to the demand of social change. No egos, it is true, can develop outside of social processes which offer workable prototypes and roles. The healthy and strong individual, however, adapts these roles to the further processes of his ego, thus doing his share in keeping the social process alive (1950, p. 412).

In a recent article, Block (1973) relates development of sexual identity to Loevinger's model of ego development (1966). The integrated stage, the final milestone of development, is characterized by achievement of an individually defined sex-role, which integrates masculine and feminine aspects of self. She presents evidence that greater maturity (as indexed by Kohlberg's stages of moral development)
is related to more androgynous less sex-typed definitions of oneself, and suggests that socializing children in their sex-role stereotype may impede development of mature ego functioning. In particular, the socialization of girls, which amounts to a narrowing of options, and discourages assertiveness, achievement orientation, and independence, makes the achievement of higher level ego functioning more difficult.

**Sex differences in development.** Behavioral differences in boy and girl neonates have not been demonstrated (Shepherd and Peterson, 1973). In fact, there is not conclusive evidence of differences in the first two years of life. Sex differences in cognitive abilities emerge in middle to late childhood. Generally, girls perform better on verbal tasks and boys perform better in mathematics and demonstrate more spatial ability. There is some argument about whether these differences appear concurrently with puberty or before (Block, 1976; Fairweather, 1976; Griffiths and Saraga, 1979; Maccoby and Jacklin, 1974). Some studies, cited in Murphy (1979), suggest that these differences only appear in parallel with awareness of sex-role stereotypes related to these abilities. Other theories to account for the differences cite differences in hormones, brain structure or sex-linked genetic structures.

Although a substantial amount of research has been done with the following constructs, there has been a failure to establish differences in: dependency, fearfulness, sociability, suggestibility, submissiveness, and nurturance (Williams, 1977; Sayers, 1979). For example, in competitive sports, studies of preadolescents show no
differences in competitiveness, achievement-orientation or skill (Cairns, 1979, p. 286). There is some disagreement among authors about whether boys are more active than girls (Maccoby and Jacklin; Seay and Gottfried, 1978, p. 90; Weitz, 1977, p. 108). The one area where differences have been demonstrated from early childhood onward is in physical aggressiveness.

It does seem that more recent research is finding fewer sex differences between boys and girls. While improved methodology and more careful work may account for some of these changes, sex-role concepts are changing in this society (Arafat and Yorborg, 1976, pp. 35-41, 133; Parelius, 1975); these may affect experimenters and subjects in such a way that variation among individuals is greater than differences between the sexes.

**Sex differences in adult achievement.** The lack of differences early in life makes the vast difference between the sexes in adult vocational achievement difficult to explain. For example, even the enhanced spatial ability of males cannot account for the low representation of women in engineering. Griffiths and Saraga (1979) point out that if entry into engineering depended on spatial ability alone, the ratio of women to men would be 2:3; in the United Kingdom, it is roughly 1:100. With a similar kind of reasoning, Maccoby and Jacklin (1974) question if the differences in physical aggression can account for the greater representation of adult males in positions of dominance and leadership. Although they acknowledge that aggression is the primary means by which apes and little boys dominate
one another, they question its relevance to leadership in business or politics (pp. 368-371).

The developmental process of socialization into culturally accepted sex roles is the most cogent explanation of the vast discrepancy in achievement between men and women. Although some of the sex role research will be covered later with the sociological theory, a few studies will be mentioned here. A number of studies have demonstrated that more girls prefer the male role than boys express a preference for the female role (Sherman, 1971, pp. 104-105). While psychodynamic theorists might interpret this as classic "penis envy", in a review of evidence for both constructs, Sherman (pp. 66-67) concludes that envy of the higher status male role is the most reasonable explanation. Goldberg (1968) demonstrated that female college students put a higher value on the same scholarly essay when they believed it was written by a man (John J. McKay) than a woman (Joan T. McKay). This pattern occurred across a number of academic fields and even when the essay was in a traditionally feminine field such as dietetics.

A recent study of college students' attitudes about various disciplines using seven rating scales showed that both males and females equate science with masculinity. Cluster analysis of the results showed only two very defined clusters, that of science and masculinity, which overlapped to a very marked degree. Neither femininity nor disciplines that are part of the Arts formed a marked cluster. Masculine and science were highly significantly correlated with one another and with "intellect-based", "hard" and "complex". The
author concludes that science needs de-sexing if women are to achieve (Weinreich-Haste, 1979). Unfortunately, different clustering procedures yield different results, and the author failed to mention what technique was used.

A number of differences between adult males and females, besides their sex-role concepts, have been postulated to account for the differences in vocational attainment. They include motivation and fear of success, and differences in: attributions, field dependence and independence, and risk-taking behavior.

That females were lower than males in need for achievement, as measured by such instruments as the Thematic Apperception Test, has been a standard finding (but see Maccoby and Jacklin, 1974). Matina Horner (Note 3) postulated that females had a motive to avoid success, or fear of success, that caused them to perform less well in competitive tasks with males. She asked able college students to complete a story that began, "After first-term finals, Anne finds herself at the top of her medical-school class." Females wrote about Anne; for males, the principal character was named John rather than Anne. More than 65% of the females, but less than 10% of the males, wrote stories with negative consequences for Anne or John. Women told of social rejection and worries about womanhood. The motivational variable was related to performance in that women who feared success, as indicated by the stories they wrote, performed significantly worse in mixed-sex competitive situations than they did alone. Horner's research and conclusions have been criticized for methodological problems (Ward, 1979), and some researchers dispute that fear of
success is a motivational variable, and show evidence that it is situational (Condry and Dyer, 1976; Bremer and Wittig, 1980).

Another area of research shows that women are more likely to attribute success to luck, in situations where men tend to attribute success to ability. Luck is an external unstable variable, while ability is an internal stable variable. If success is attributed to ability, it is likely that it can be repeated; luck is outside the person's control (Barnett and Baruch, 1978; Viaene, 1979). Other constructs that have been used include field dependence and independence, which showed that men are more field-independent (Maccoby & Jacklin, 1974, p. 104); and risk-taking, which showed that women are less confident of their judgment (Hyde & Rosenberg, 1976, p. 93-94). Other theorists (Douvan, 1976) have argued that since modelling is a critical process by which we learn professional roles, women are at a disadvantage since there are so few women who have achieved professional success.

Cross-Cultural Research on Sex-Roles. The classic study by Margaret Mead (1935) produced support for the idea that temperaments that we regard as native to one sex, are simply variations in human temperament to which either sex, with differential success depending on the individual, may be educated (p. 14). But every known society has prescribed sex roles and the male role is almost always valued more. A possible exception to this are the matriarchal societies that are hypothesized to have predated patriarchal ones. Although this theory is rejected by many scholars,
the Swiss anthropologist Bachofen first proposed it in 1861, and Robert Briffault (1927) and others have supported it.

The anthropologist Claude Levi-Strauss has addressed the problem of division of labor between the sexes. He notes that in every human group, women give birth to children and take care of them, and men tend to perform the hunting and warlike activity, but even here there are reversals. (Obviously role reversal is not possible for having a baby, but in the practice of couvade, the husband behaves as though he had a baby.) In other kinds of activity, it is not possible to specify natural reasons for the divisions of labor that exist. Since in every society there is a division, he concludes that, "The sexual division of labor is nothing else than a device to institute a reciprocal state of dependency between the sexes" (1956, p. 63).

The anthropological evidence underscores the enormous plasticity of the human species, and at the same time, the ease with which people can be channelled into a subset of the range of behavioral and personality characteristics. However, Margaret Mead in a recent paper (1974), stressed that we do not yet know enough to state that biology does not play a role in determining different personality characteristics of men and women. She suggested that it would be surprising if millions of years of cyclic changes and other factors associated with childbearing did not have some effect on women. She ended the paper with this: "The rhythms of human development, patterned during a million years, are ignored at our peril, and understood, give us wisdom" (p. 61).
The next section is a review of issues related to marital status and marital roles.

**Husband and Wife**

This section focuses on what it means for a man or woman to be a husband or wife. Sociologists speak of getting married as a "critical role transition event," because it creates new behavioral demands and new relationships (Aldous, 1978, p. 6). One's orientation shifts from "I" to "we" and the couple must work out reciprocal role behaviors. Although traditional marital role concepts are changing, it is still likely that the husband sees himself as responsible for the finances and that the wife sees herself as responsible for the cleanliness of their house or apartment. Before theories of spousal roles are presented, some definitions will be made.

In analyzing social structures, sociologists use the term "status" to refer to a position in a social structure, and "role" to refer to the expected appropriate behaviors that each status carries with it. The definitions just given are those used by the structural-functional theorists in sociology. Another viewpoint that is identified with George Herbert Mead, the symbolic-interaction frame of reference, uses the concept of role in a different sense. It emphasizes that roles are developed in interaction with others who are present either actually or symbolically. The emphasis is not on the static role as a part of expected behavior, but in the process of communication and inference between people as they work out interlocking patterns of behavior. Role ambiguity occurs when expectations appropriate to a
status are unclear. When expectations are inconsistent, role conflict occurs (Eshleman, 1974, pp. 38-78). Another term, role strain, is used for situations in which there is disagreement among the participants about the role taken. For example, Clifford Kirkpatrick in the 1930's defined the three roles of a wife: traditional wife and mother, companion role, and partner, as to privileges and obligations (cited in Denisoff and Wahrman, 1975, p. 154). Unfortunately, these were quite different. If a husband and wife did not agree about the wife role, the wife may feel role strain.

The traditional roles of husband and wife were best conceptualized by Talcott Parsons. The husband's role was instrumental; he earned a living, conducted transactions and represented the family in the community. The wife's role, labelled expressive, consisted of nurturing and caring for their children and providing emotional support for her husband. Parsons noted that a major advantage of this role specialization was that, since only the husband was employed, it eliminated any competition for status between husband and wife which might disrupt the solidarity of the marriage (1955). Other theorists have conceptualized roles somewhat differently. Burgess (Burgess, Locke and Thomas, 1963) described an alternative to Parson's model, which he called the companionship marriage. In this model, role sharing and a breakdown of role polarization takes place. Companionship is a relationship between persons rather than roles. Burgess believed that this form of marriage was emerging and would replace the institutional family in which behavior is determined by social mores, public opinion and law.
In recent years, there has been a trend toward less role differentiation. A major impetus for the change has been the increased participation of women in the labor force. In 1978, 47.6% of married women were employed; of married women with one or more children under six years of age, 42% were employed (U.S. Bureau of the Census, 1979). Various studies document the shift in marital role expectations (e.g. Scanzoni, 1978). A three-generational study found a shift in authority patterns to more equalitarian, and a shift in roles to more sharing and less specialization (Hill, 1964). A recent study of adolescent expectations of occupations and domestic roles (Aneshensel and Rosen, 1980) found that 10% of the females planned to stay home after marriage, 82% planned to have a career and marry, and 7% planned to have only a career. The girls who expected to enter occupations that are currently male-dominated plan to work continuously and have a smaller family than those with other career expectations. Other recent research shows that the extent of role-sharing (employment, housework, childcare) is positively related to the husband's educational level (Farkas, 1976) and the wife's educational level, and negatively related to the husband's income (Ericksen, Yancey, and Ericksen, 1979). A study of attitudes about childlessness (Blake, 1979) found that men are more likely to regard it as disadvantageous than women. Since the major opportunity costs of rearing children are borne by women, the author argues that men may be more willing to share the child-rearing role.

In studying the family, sociologists have been aware of these changes and a number of formulations have been made of emerging
patterns. Osofsky and Osofsky (1971) have proposed an androgynous marriage structure in which family roles are allocated without respect to sex. Similarly, Bernard (1975, p. 67) refers to Hefner and Nordin's concept of sex-role transcendence, in which she notes, "it is role transcendence, not sex transcendence" that is being stressed. Rapoport and Rapoport (1978), who have done intensive studies of dual career couples, discuss the protean family, after the Greek god of the Sea, Proteus, who was able to change his shape spontaneously. The protean family is neither a dual career family, nor a traditional one; but it allows the possibility of variation and change in the family structure to suit the make-up of the individuals and the situations that they confront (p. 184). Weingarten (1978) describes an interdependent style of marital interaction, which is the capacity to tolerate the four combinations that will occur when both husband and wife can be sometimes dependent and sometimes independent. Aldous (1978) refers to Turner's concept of role-making rather than norm playing to describe the process by which spouses allocate tasks. As an alternative to role-strain, Seiber (1974) proposes the term role accumulation to describe the multiplicity of roles that both spouses will sometimes play.

From their extensive studies of dual career couples, Rapoport and Rapoport (1978) conceptualize three issues that distinguish dual-career couples from conventional couples: linkages between the family and occupations, inter-relationships within the family, and linkages between the family and non-occupational social institutions and networks. Because both partners work, either or both of them may
encounter hostility from colleagues. The wife may need to prove that she can perform as well as a man. The husband, if he shares in household or childcare tasks, may be at a competitive disadvantage with men whose wives manage these tasks. Within the family, the husband and wife must agree on task allocation; this can be problematic while balancing the demands of two careers. Although it was believed that a mother's working might be harmful to her children, recent research has demonstrated no ill effects (Hoffman, 1974). Other social institutions (schools, hospitals) and relatives, neighbors and friends tend in the present state of society to be very unsupportive of the dual-career pattern (Rapoport & Rapoport, p. 16). These are some of the potential sources of conflict in a family where both husband and wife are employed.

The next section contains a review of recent research on wives' employment. In the first portion, the factors that are related to labor force participation by married women are considered. The next part will detail some of the effects of the dual-worker pattern.

Factors affecting the wife's career level. Murstein (1974) summarizes a body of research by stating that there are three barriers to a wife's career: the myth that extensive maternal care is crucial to the child's personality development, the attitudes of married men that women belong in the home or that their male status as "breadwinner" is threatened, and the failure of our technological society to make child-care and house-keeping provisions available. Other recent research is also of interest. Winter,
McClelland, and Stewart (1977) found that a wife's career achievement is negatively correlated with her husband's need for power measured fourteen years earlier. Need for power was measured with the Thematic Apperception Test. Another study (Bebbington, 1973), found that both partners in dual career couples had unusually high amounts of stress in their early background. He hypothesizes a relation between this early experience and their willingness now to live in a highly stressful situation.

Two studies (Heckman, Bryson and Bryson, 1977; Hudis, 1976) documented that family constraints in terms of career interruptions negatively affected wives' career potential. Darley (1976) discusses the situational factors that operate on women to shape their domestic and professional choices. Berson (1979), in an exploration of choices made by working and non-working women, with and without children, found no differences in their evaluations of independence, feeling of self worth and care of children. They believed a career would increase their autonomy, but could also threaten their marriage. Farmer and Bohn (1970) twice gave the Strong Vocational Interest Blank to women forty years of age and older. The first time they used the standard instructions; in the second administration, they asked the women to pretend that: (a) men like intelligent women; (b) men and women are promoted equally in business and the professions; and (c) rearing a family well is very possible for a career woman. Scores on career scales were significantly increased and scores on home scales were significantly decreased, for both single and married women, as a result of the special instructions.
Finally, Hiller and Philliber (1980) in an investigation of married women's participation in the labor force found that the single most powerful predictor of employment was the woman's status attainment or job potential. Contrary to hypothesis, this relationship was independent of the husband's income and the relative status of her job versus her husband's. These variables were tested after accounting for differences in economic necessity, age, number of children and number of preschool children.

Effects on the marriage of wives' employment. Recent research on the dual worker pattern has addressed its effect on the wife, on the husband, and on the marriage. An article by Richardson (1979) references multiple studies showing that working wives experience better general health, higher self-esteem, greater personal autonomy and greater marital communication than non-working wives. Richardson's study compared marital happiness when either spouse was occupationally superior to the other, and found no significant differences between couples with a status difference, and the rest of the national sample of dual worker couples. The author discusses the implicit assumption in the marital relations literature that marital stress and dissatisfaction would result from the occupational superiority of a wife with respect to her husband, and presents reasons for the persistence of this theoretical assumption in the absence of empirical support.
Burke and Weir (1976) found that husbands of employed women were in poorer health and less contented with their marriage compared to husbands where wives were unemployed. Booth (1977, 1979) pointed out methodological weaknesses in Burke and Weir's study and replicated it with methodological improvements. He found no significant differences between husbands of employed and non-working women. In a comparison of mono-employed, dual-employed and dual professional couples, Deutsch (1978) found that, contrary to hypothesis, men in dual-employed couples coped less effectively than men in the other two groups.

Two recent articles present more subjective information. Nadelson and Eisenberg (1977), both husbands of professional women, argue from their own experience and that of colleagues and patients, that the enhancement of female personhood, because of a woman's professional commitment, leads to a richer and more rewarding marital relationship. Komarovsky (1973) explored attitudes of college men about their future wife's employment and found a myriad of contradictory attitudes. Although these men believe in abstract equality, and definitely want a wife with career potential, they expect that family needs and their own careers will take priority over any career investment by their future mates. The article included a number of verbatim comments by the subjects, and demonstrates the complexity of attitudes that are held. The lack of cognitive consistency makes the design of survey items very difficult, and implies that survey results should be interpreted with great caution.
Other studies have found no significant differences between dual and mono-employed couples on marital communication (Siperstein, 1978) and marital adjustment and communication (Locksley, 1980). A study that did not address work patterns, but rather androgyny of married couples (Simms, 1978), found that, contrary to hypothesis, there was a tendency for traditional couples to experience greater marital satisfaction and communication than androgynous couples.

Another area of research has been directed toward identification of characteristics that are associated with greater adjustment in dual worker and dual professional couples. Bailyn (1970) found that such marriages were happier when husbands were both career- and family-oriented rather than one or the other. Slali (1978) discovered that marital relationships were better when husbands of professional women valued self-actualization for both themselves and their spouses. In a study of dual career couples with children, Goldstein (1978) found that androgynous couples (as measured by Bem's Sex Role Inventory) had more marital satisfaction than non-androgynous couples. Higher levels of marital satisfaction for the wife occurred when the husband was more liberal, more androgynous, and less job-involved. Cartwright (1979) determined that married female physicians who reported high levels of career satisfaction and role harmony had significantly greater confidence, intellectual resources and tolerance than the other married women physicians. They also were very clear about the priorities of career and family. Symonds (1979), discussed the costs to married women of combining the parental and professional roles. Such women
cope by trying "to become super-mom and super-wife, and thus become even more alienated from their own needs." She believes that these women lack "a healthy sense of entitlement to all that life can offer."

On a more hopeful note, she reports that young women are now growing up with a healthy sense of entitlement.

A summary of the theory and research findings that have been reviewed is very difficult. More questions are raised than answered, and overall patterns fail to emerge. The more traditional models fail to explain recent research results (e.g. Richardson, 1979; Locksley, 1980; Macke, Bohnstedt and Bernstein, 1979), and more recent theoretical constructs, formulated in reaction to the traditional models, have a somewhat strident quality (see e.g. Lenney, 1979). Researchers on both sides of the theoretical issues seem to fit Bertrand Russell's description of the shift to equality leaving former superiors sore and former inferiors self-assertive. Perhaps we are in the midst of a paradigm shift (Kuhn, 1962) and new formulations of women (Clower, 1979; Machover, 1980) and of marital roles (Eshleman, 1978) will emerge in the near future.

Because of the conflicting theoretical frameworks, and the personal implications of the assumptions of these frameworks, it is doubtful if investigators can be as scientifically objective as they might be in undertaking research in less personally-involving fields. As a woman, the present investigator is aware of possible bias, but hopes that the very awareness may serve to somewhat counteract any lack of objectivity.
Rationale for this Investigation

The present study tested the idea that the marital state is a benefit to the male at the expense of the female. Specifically, it was hypothesized that, in a professional program such as veterinary school or law school, married males will perform better academically than single males, and single females will perform better than married females. It has been noted by counselors (Note 1) that some married women seem to have more difficulty than other students. If the hypothesis being tested is supported by this study, married women students and their spouses can be alerted to the fact that they may well have difficulty.

In the literature review of students in professional programs and graduate schools, there were a number of studies that reported no significant differences with respect to sex or marital status (Kelman, 1978; Knox, 1972). It is the major hypothesis of this study that although a test for interaction of sex-by-marital status was not done, such a test would have yielded significance. Thus, a potentially explanatory variable has been ignored up to this time. The latter part of this study attempted to identify situational factors related to difficulties of the married state. Married students and their spouses can be informed as to potential difficulties of their situation.

The next section is a review of recent research. Since no studies were found that relate directly to the hypothesis and the subject population, research from different areas is presented. The first part is research about married students; following that, recent studies of students in professional programs are covered; and finally, recent
research using grade-point average is summarized. In the section after that, the research related to the hypothesis of this investigation is presented.

**Recent Research with Groups Parallel to Those of this Study**

**Married students.** Recent research on the married student population has been addressed to a number of issues. Horne and Graff (1973) sampled graduate and undergraduate students and spouses. They report that female graduate students experienced greater difficulty in the area of role conflicts than did female undergraduates, and that, overall, wives reported more difficulty than husbands.

Hartshorn (1978) reported that graduate students perceive graduate school as having a negative effect on their marital relationship. Her evidence suggests that male students and female spouses have greater affection and less conflict than female students and male spouses. Hooley (1976) tested Mead's theory of role strain in a sample of Ph.D. students and spouses. She found increased marital role strain, the greater the discrepancy in the couple's marital expectations, and the less the couple shared in performance of home-related tasks. Another study of role strain (Van Meter, 1976) used married college women as subjects. Role strain was shown to be negatively related to total personal and marital satisfaction. The most significant predictor of role strain was the amount of emotional support the woman received from her husband and family. In a comparison of women reporting low and high amounts of role strain, the low group considered the family role more important than the student role, and reported greater partner
agreement with their role priorities. In this study, stage of family career was not related to role strain.

Two recent studies utilized the population of married women who returned to school. Berkove (1979), noting that husband support appeared to be a crucial variable, investigated four aspects of it: attitudinal, emotional, financial and behavioral. Emotional support appeared to be essential to the women returning to school in the first place, and attitudinal and financial support differentiated dropouts from successful students. In general, there was little change in home-task performance, but husbands did more child-care related tasks than home management tasks. Major problems cited by the women were time management and role demands. The women experiencing the least stress were those who reported that their husbands held more liberal attitudes about women's roles and capabilities, those who reported their husbands were emotionally very supportive, those whose husbands supported them financially, and those whose husbands were involved in many of the household tasks.

Hooper (1979) interviewed husbands of returning women students. She found that outcome anxiety was greater the longer the wife has been in school; and the higher the outcome anxiety, the less supportive the husband reported himself. Some of the interviews highlighted an interesting aspect of changes in sex-role concepts. One husband reported feeling threatened because his mate found that being a professor's wife did not give her fulfillment as a person. Others reported similar feelings.
Students in professional programs. Most recent studies mention the sharp increase in female enrollment in professional programs. Daniels (1975) notes the shift in college women's career aspirations in the period 1970 to 1974. In 1970 more than a third of the entering freshmen agreed with the statement, "The activities of married women are best confined to home and family." In 1972, only 25% agreed, and in 1974, only 20% agreed.

There has been surprisingly little research among professional school students on psychological issues. Only a few relevant studies of law students were found. One major survey of law students (Stevens, 1973) was done at a time when only 9% of them were female. Compared to the men in the class, however, the women were more likely to have had a working mother, to have come from a better educated family, and to hold more liberal political views. Matina Horner, in a study of women at Harvard Law School (1972), found that 87% of them revealed imagery connoting fear of success.

Jacobs (1975) studied the process by which women law students develop a professional identity in a male-dominated profession. She found that although women perform at least as well as men on the Law School Admissions Test (LSAT) and in their grades, they tend to have low self-esteem and to denigrate women. Her observation of women in classes and in mock trials also suggests that they have some sex-role conflict with the adversary process; in situations where the men would aggressively pursue a point, the women tended to be much more deferential and nonaggressive. In a study by Curtis, Zanna and Campbell (1975), women were less likely than men to respond in class,
and more reluctant than men to tell others of successful grades they had received. Other studies (Rickson, 1975; Taylor, 1973) document the highly competitive nature of legal education.

Robert and Winter (1978), in a study of gender roles and success in law school, present evidence that both "the highly feminine women and highly masculine men are not destined to succeed in law school" (p. 457). The more successful women are those who describe themselves in masculine terms; but highly masculine men do not perform as well as moderately masculine men. The authors explained roughly 35% of the variance in grades with a few self-concept factors, beliefs and attitudes, and without any direct measure of ability. Another study (Frank, 1979) contains a clinical analysis of depressed female law students who were seen as clients at a university health service. The dynamics that were operating seemed to be low self-esteem resulting from the failure of either parent to provide support for independent initiative. Both heterosexual involvement and academic success mobilize conflicts around independent initiative, since it is associated with the withdrawal of "emotional supplies".

Only a few relevant studies of veterinarians were found. The first (Giuliani and Centra, 1968) examined the professional practice patterns of women veterinarians. They found a pattern of specialty choice similar to the other professions; women tend to choose specialties where their sex and professional role differences were minimal. In general, women were more satisfied than men with their profession; when the women were dissatisfied, it was related to role conflict. In a much more recent survey of women veterinarians and
veterinary students (Houpt and Calhoun, 1977), seventy-eight percent of the female students felt that the veterinary profession was not sincere in welcoming them. In reporting career plans, 73% of the students reported that they would not give up their careers to raise their families. In another recent survey of veterinary students (Andberg, Follett and Hendel, 1979), there were more and greater differences between the way the sexes responded to sex-role questions (about opposite-sex classmates) than to gender-role questions (about self). Generally, the authors found that female veterinary students are more non-traditional than male students, and than male students expect them to be.

A study of types of stress experienced by veterinary students (Kelman, 1978) showed that time pressure (not having enough time for family, friends and recreation) was a source of stress to many students. The typical student spent about 60 hours per week in school-related activities. Fifty-six percent of the students were married; the distribution by sex is not reported, but the author makes reference to the large influx of women into veterinary school. There were no significant differences by either sex or marital status; it is not known if the data were tested for an interaction effect of sex by marital status. A study of time utilization by veterinary students (Coulter, Roberson, Hooper and Welser, 1977) reported slightly lower academic hours per week, in the range 45-54 hours. In the latter study, students spent 24 hours per week in leisure and recreation, and an average of three hours per week in housework.
Because of the sparsity of research with law and veterinary students, some recent research with medical students and graduate students will be included. Particularly for veterinary students, experience in medical school should be quite relevant.

Perlow and Mullins (1976) reported survey responses from spouses of married medical students. Ninety-six percent of the spouses were female. Areas of stress reported were: student's preoccupation due to school pressure, limited finances, student's inaccessibility due to school work, and conversation limited to the student's medical interests. Although, in this study, marital satisfaction was high, the areas of stress reported highlight the total commitment of the student to school, and suggest that for married women students, their spouses might not be so satisfied with the situation.

Two recent studies of medical students document shifts in women toward more non-traditional sex-role concepts (McGrath and Zimet, 1977; Rosen, 1974). The latter study compared students and faculty by sex and found that male faculty were most traditional in their sex-role concepts, followed by female faculty and male students whose attitudes were comparable, and then female students, who were the least traditional. All of the studies of students in professional programs note that the women are not ardent feminists by any means; but usually the women students reject the notion that childbearing is the essential and central part of a woman's role.

Two articles report difficulties of women medical students based on in-depth contact with them (Goldstein, 1975; Nadelson and Notman, 1972). They mention that women students often feel they have not
filled parental expectations of them as women; they lack recognition
and support from family and peers; and they miss female role models
among teachers and administrators. Although there is little or no
overt discrimination, sex role attitudes of faculty and peers sometimes
interfere with comfortable interpersonal relations. The women do not
value their potential future financial contribution to the family, and
they want children as personal fulfillment and growth, but they
perceive that the role of motherhood will interfere with their career.

A study by Roeske and Lake (1977) presents evidence that women
medical students prefer to resolve their first two identity crises
(whether one has to be masculine to be a good physician, and whether
one has sufficient knowledge and skill to function effectively as a
physician) and delay the physician versus mother conflict until the
other two conflicts are resolved. This study and other research have
noted the formation of a professional identity as a task during
professional school. The role of wife may carry subtle burdens that
make the process more difficult for married female students.

Two recent studies of women doctoral students will also be
mentioned. A study by Spiro, Roenneburg, and Maly (1979), which
compared stress in medical versus graduate school, found that medical
students reported that personal relationships suffered during their
education more frequently than graduate students. This suggests that
married female professional students would have more difficulty than
married female graduate students.

Holahan (1979) compared the experience of women doctoral students
in traditionally male-dominated fields, fields that are not sex-typed,
and fields that are traditionally female. She cites Epstein (1970) who describes "status set typing" in which a class of persons who share a key status (e.g. lawyer) also share other matching statuses (e.g. male, white, Protestant); members of the occupational group who do not possess the normative status set are disturbing to members of the occupational group and to society in general. In her study, Holahan found a significant interaction between the sex-typing of the field of study, and women's need for support for both stress from time pressure, and stress from pressure in marital, family or other intimate relationships that conflicted with graduate school demands.

Another study of female doctoral students hypothesized that fear of success and feminine identity conflict would be more intense for single than married women because their marital status and academic striving were in sharp contrast to societal norms for females (Phillips, 1977). The hypothesis failed, and the author noted that female doctoral students tend to have non-traditional sex-role orientations and to see femininity and achievement as compatible.

Research Using Grade Point Average as a Variable

It is generally believed that grade point average is significantly related to ability, as measured by, for example, the SAT, GRE, Law School Admissions Test (LSAT), or the Medical College Admissions Test (MCAT); and to previous grades. An investigation at the LSU School of Veterinary Medicine showed that a combination of the MCAT and undergraduate grades explained about 50% of the variance in veterinary
student grades (Note 4). The discrepancy between grade point average (GPA) and the predicted GPA based on ability is frequently used as a measure of psychological health or stress. Banreti-Fuchs (1975) and Banreti-Fuchs and Meadows (1976) demonstrated a positive relationship between GPA and mental health, as measured by the Minnesota Multiphasic Personality Inventory for university students. Another study of college students (Knapp and Magee, 1979) investigated the relationship between GPA and responses to life-event checklists. Although there is theory and research demonstrating a relationship between changes in one's life and performance, the authors classified changes as desirable or undesirable and tested them separately. They found that GPA was significantly negatively related to undesirable life events, but not significantly related to desirable ones. Another study (Pulvino and Hansen, 1972) found significant relationships between GPA and measures of anxiety and alienation.

Theory and Research Related to the Main Hypothesis

Because of the breadth and complexity of the issues involved in this study, the research related to the main hypothesis, that marriage improves the performance of men and has a negative effect on women, is discussed here, rather than within the other sections where it could be placed.

A hundred years ago, the assertion that a woman's career performance was adversely affected by marriage would not be surprising. A wife's first responsibility was to her home and family, even if there were no children. But in today's culture, where equality of men and
women and husbands and wives is supposedly the norm, the hypothesis is of more interest. The broader implication, that marriage works for the husband to the detriment of the wife, may signify some cause for concern.

Feminists, and writers for the Women's Liberation Movement, (Greer, 1970, p. 340; Laws, 1971) have claimed that marriage is one of the weapons used in the oppression of women. Sociologist Jessie Bernard (1972) presents evidence from a number of different areas that for a woman, the psychological costs of marriage are higher than for a man, and the benefits are fewer. For the first part of the statement, related to psychological costs, she cites a number of studies in which the rate of mental illness is greater for married women than for married men, and greater for married women than for single women. Other studies and literature reviews have been addressed to this issue (Al-Issa, 1980; Crago, 1972; Dohrenwend and Dohrenwend, 1976; Gove, 1972; Gove and Tudor, 1973; Goldman and Ravid, 1980; Spreitzer and Riley, 1974; Welner, Marten, Wochnick, Davis, Fishman and Clayton, 1979). Gove and Tudor, and Crago both cite evidence that married women have higher rates of mental illness than married men. Crago relates the difference to differences in marital roles and perhaps the increased accommodation and adjustment that the wife is expected to perform. Gove (1972) cited evidence that married women have more mental problems than married men, and the reverse was true for all categories of unmarried people. Gove and Tudor, comparing pre and post World War II, found that rates were higher for men prior to the war, and higher for women after the war. They relate the
difference to recent changes in women's role in an industrial society; at the same time that women are receiving more education, their role in the home is shrinking and they are not treated equally with men in their attempt to find other rewarding activities. Dohrenwend and Dohrenwend are critical of the Gove and Tudor results because of changes in concepts and methods in different studies. In reviewing the data, they do not find differences pre and post World War II. The differences by sex are that women have higher rates of neurosis and manic-depressive psychosis; men have higher rates of personality disorder. They do not consider marital status. Two recent reviews of mental health statistics (Al-Issa, 1980, p. 35; Goldman & Ravid, 1980, p. 48) conclude that marriage is more negatively related to mental health of women than men.

Spreitzer and Riley compared factors associated with singlehood in males and females in a sample of older adults (median age of 55). They found that males with higher intelligence, education and occupational achievement were more likely to be married; the reverse was true for females. This effect is called the "marriage gradient" by Jessie Bernard (1972, p. 33). Among males, there is a marked association between unsatisfactory relations with the family of origin and singlehood; for females, singlehood is associated with poor relations with the mother and good relations with the father and siblings. All hypotheses in this area are fraught with difficulty, but using mental illness rates of single people as a comparison group for married people may be unfair, since single males are less successful than their married counterparts, and the reverse may be true for females.
The other part of Bernard's hypothesis, that the benefits of marriage are greater for men than women, is also somewhat problematic. Considering self-report data on marital happiness, Bernard accepts at face value the reports of men as to their level of happiness and marital satisfaction, but very similar data reported by women are interpreted differently. Bernard reasons that being married for most women constitutes role success; to report that they are unhappy in their marriage would be admitting failure. A paper by Glenn (1975) takes issue with Bernard's interpretation of the data and presents more self-report results documenting women's marital happiness. A recent national survey (Locksley, 1980) found that women express more dissatisfaction with the marital relationship than men. In an afterword to Glenn's paper, Bernard (1975) adds an interesting bit of evidence with respect to never-married women. If they are heads of households, they have the lowest rate of depression of any sex by marital status group; if they are not, their rate of depression is much greater than either the rate for married women or widows. She relates these results to powerlessness or lack of control of one's future.

One of the reasons given for differential effects of marriage on men and women is that women do the lion's share of the adjustment and accommodation in marriage. Although measurement of such a subtle concept is difficult, a number of studies and literature reviews have found support for this notion (Barry, 1970; Bentler and Newcomb, 1978; Laws, 1971; Luckey, 1960; Pickford, Signori and Rempel, 1966), even though different instruments and measures were used in these studies. For example, in Barry's literature review, he notes
that each of the following has been found significantly positively correlated with marital happiness: a wife's increased understanding of her husband over time; the wife's coming to resemble her husband on attitudes and personality inventories; and the increased congruence of the wife's perception of her husband with his self-perception. For each of these variables, no relationship was found between marital happiness and the obverse in connection with the husband; e.g., husband's understanding of the wife was not related to marital happiness. Laws' (1971) review of the research ends with this statement: "On the basis of the evidence reviewed it seems a case can be made that marriage is not good for women."

The next line of evidence related to marriage's potentially debilitating effects on women's professional achievement considers the competitive nature of the occupational system. A number of hypotheses were discussed earlier as to why women have achieved less occupational success than men. Role conflict, women's fear of success, lack of role models and socialization patterns have been mentioned. Another hypothesis, put forward by Hochschild (1975), is that the career system favors the married family-free man. To the extent that his family helps him with his work and does not make demands on his time and psychic energy, they increase his chance for survival. She quotes a statistic from Graham (1971) that women Ph.D.'s in the United States spend about 28 hours per week on household tasks. A comparable figure for male Ph.D.'s is not available. Koester and Clark (Note 2) found, in a study of academicians, that married women and single men reported higher frequencies of stress-related symptoms, and lower job
satisfaction, than their same sex colleagues. In a study of Ph.D. recipients (Ferber and Huber, 1979), it was found that having a Ph.D. spouse negatively affected both spouses' productivity. The authors hypothesize that with increased role-sharing, the occupational benefit of marriage for a man is decreasing.

Among students in medical school and in law school, it is generally believed that marriage has a beneficial effect on performance (Coombs & Boyle, 1971; Coombs and St. John, 1979; Stevens, 1973). The students who reported this impression, however, were predominantly male. With respect to completion of a Ph.D. in psychology, married students are more likely to do so than single students (Knox, 1972). In the latter study, however, the author mentions that performance of older married women do not fit the pattern, but the data were not analyzed for a sex-by-marital status interaction.

A recent study by Ma and Wooster (1979) relates grade point average and marital status for college students. In the review of previous research, they note that the beneficial effect of marriage on grades had been established, but that in the late 50's and early 60's, some studies produced conflicting results and research since then has been mixed. Their study did find a significant positive relation of marriage to grades. Although they mention that the sample was stratified by sex, they do not report the sex ratio in the sample, and no mention is made of it as a variable.

In a study of the effect of marital status on graduate education, Feldman (1972) utilized the responses of approximately 33,000 completed mail questionnaires from graduate and professional
school students in 158 U.S. colleges and universities. On one item, for students who planned academic careers, he compared productivity (present a paper or publish an article) by sex and marital status. Married males were most likely to have engaged in these activities and married females were least likely. More married women than married men indicated that they will or may drop out of school because of pressure from their spouses. Generally, married women are less likely to put a career ahead of family obligations. More married than single men reported increasing their earning power as a motivation to attend graduate school. Married women appear to be least likely to engage in informal or social interaction with fellow students. Feldman cites a number of research studies that indicate that development of commitment and professionalization takes place in such informal interactions.

In his conclusion, Feldman states that married women appear to have a role conflict between wife and student, while married men appear to be the most productive and best-adjusted of all groups. The role conflict for women appears to be between student and wife rather than between student and mother, because divorced women, 70% of whom have at least one child, are more committed and active than single women. He suggests that in divorce, men lose a supportive relationship, while women lose a source of severe role conflict.

Pilot Study

Besides informal in-depth discussions with students and former students at the veterinary school and the law school, two analyses of student grades at the veterinary school were done to test the
hypothesis that married men perform better than single men, while married women perform worse than single women. The first analysis utilized a data base that had been prepared for a different study. It included all students in the classes of 1982 and 1983 who had taken the new MCAT. First year performance data was available for both classes; second year performance was only available for the class of 1982. The marital status information was obtained from the application to the veterinary school; thus any students whose marital status changed during the first two years were not classified correctly in the analysis.

Analysis of variance and analysis of covariance were done with grade point average as the dependent variable. In the analysis of variance, sex, marital status and their interaction were tested against semester GPA and cumulative GPA for the four semesters. The analysis of covariance included these variables and used admission criteria (MCAT, grade point average for science courses, required courses, and the last 45 hours) as covariates. Each of the admission criteria was also used as a dependent variable to test for sex-by-marital status effects.

The results were that generally sex was not significant, marital status was not significant, but sex-by-marital status was significant ($p < .05$) for cumulative GPA in each semester. For semester GPA, the interaction was significant in the first three semesters, but not in the fourth semester. For the admission criteria, sex-by-marital status was not significant. The mean GPA for each semester is shown in Table 1. Generally, married males have a higher GPA than single males, while
TABLE 1
Grade point average of SVM students by Sex and Marital Status
Classes of 82 and 83

<table>
<thead>
<tr>
<th>Sex</th>
<th>Marital Status</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>N</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Single</td>
<td>51</td>
<td>3.08</td>
<td>2.97</td>
<td>32</td>
<td>2.94</td>
<td>2.93</td>
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<td>3.03</td>
<td>5</td>
<td>3.28</td>
<td>3.30</td>
</tr>
<tr>
<td>Female</td>
<td>Single</td>
<td>32</td>
<td>3.19</td>
<td>3.19</td>
<td>11</td>
<td>3.30</td>
<td>3.31</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>9</td>
<td>2.49</td>
<td>2.61</td>
<td>3</td>
<td>2.82</td>
<td>2.91</td>
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</table>

<table>
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<tr>
<th>Sex</th>
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<th>1</th>
<th>2</th>
<th>N</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>Male</td>
<td>Single</td>
<td>51</td>
<td>3.08</td>
<td>2.85</td>
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<td>2.49</td>
<td>2.70</td>
<td>3</td>
<td>2.86</td>
<td>3.15</td>
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</table>

Class of 80

<table>
<thead>
<tr>
<th>Sex</th>
<th>Marital Status</th>
<th>N</th>
<th>Semester GPA-final semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Single</td>
<td>40</td>
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</tr>
<tr>
<td></td>
<td>Married</td>
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<td>3.16</td>
</tr>
<tr>
<td>Female</td>
<td>Single</td>
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<td>3.45</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>8</td>
<td>3.14</td>
</tr>
</tbody>
</table>
Figure 1

Class of 1982
Cumulative GPA at the End of the Fourth Semester
by Sex and Marital Status
married females have a lower GPA than single females. This is demonstrated in Figure 1 which contains a graph of the cumulative GPA at the end of the fourth semester.

In the first semester, married males have a slightly lower GPA than single males; married females have a much lower GPA than single females. Although there is a sex-by-marital status difference, any possible benefit to married males may be offset by the life change related to entry into the program. For roughly 30% of veterinary students, entry into the program involves moving from West Virginia or Arkansas to Baton Rouge; this may be more stressful for married students regardless of sex.

Although the mean GPA's for the fourth semester are in the hypothesized direction, the results were not significant. Interestingly, that is the one semester in which none of the admission variables were significantly related to GPA.

When these results were discussed with administrative personnel at the veterinary school, they reported that in the class that had just graduated (class of 1980), there were a number of very bright married women who performed very well. For this reason, it was believed that a similar analysis of the performance of that class would not yield significant results. So a test was done of grades in the final semester, using marital status at that time. The results were that sex and marital status were not significant, but the sex-by-marital status interaction term was significant (p < .02) and single females got higher grades than married females, while married males performed better than single males (see Table 1). An examination of
mean cumulative GPA did show that married females had higher grades than single females; however, since 38% of the women in the class changed their marital status during the 4-year program, it is difficult to interpret these results in relation to the hypothesis.

Specific Goals of the Present Investigation

The investigation consisted of two parts. In the first part, performance of students in law school and veterinary school was examined for sex by marital status differences. The hypothesis to be tested was:

Hypothesis I Grade point average will show a significant sex-by-marital status interaction such that married males will perform better than single males, and single females will perform better than married females.

The second part of this project was an exploration of factors that differentiate the effect of marriage on students depending upon their sex. It is related to the first part in that it was aimed toward explicating the effects on performance. But whether or not the first hypothesis was supported, the second part of the study investigated the reports of counselors that married women students have a difficult time in professional school.

The student role in a professional program is very demanding of both time and psychic energy. The time requirements are very difficult in that they are quite variable and not under the student's control. The psychic energy requirement is particularly high because the student is constantly being asked to demonstrate a
sufficient level of competence to be admitted into a profession. The student is not sure at the beginning that he or she has all of the characteristics that will make a good lawyer or veterinarian. It would seem that a traditional wife as described by Talcott Parsons would be a great benefit to a student in this situation. Having the support of another person, to meet personal needs and share vicariously in the endeavor, would be a boon in the good times and a comfort in the rough spots.

So when the married student is female, the situational requirements call for a role reversal, i.e. for her spouse to play the expressive role. For many men, it is inherently difficult to behave in a way that is contrary to stereotypic marital role expectations. In addition, there is a major situational difference between that of most married female students versus males; the spouse of the female is already putting time and psychic energy into a career. Most of the married male students are in a situation similar to the mono-career couple. The married female is usually part of a dual career couple, with all of the difficulties of that situation. Thus, we would expect the hypotheses we make about differences to be mediated by the extent to which the spouse of either sex is putting energy into a career.

The following hypotheses were tested:

Hypothesis II Married female students receive less spousal support than married male students.

Hypothesis III Married female students have more role conflict, between the spouse and the student role, than married male students.
The final hypothesis concerns time spent in home management. Informal discussions with married women emphasize the point that what makes a difference is the time and energy spent taking care of the home.

**Hypothesis IV** Married female students do a greater share of home management than married male students.

**STUDY I**

**Method**

**Subjects**

Student records from the LSU Law Center and the School of Veterinary Medicine were used in this analysis. The sample at both professional schools consisted of grade point average for the Fall 1980 semester for all enrolled students except students in their first semester of professional school. First semester students were excluded because results of the pilot study suggested that the transition to student status may be more stressful for married couples than for single people, regardless of the sex of the student.

Table 2 contains enrollment statistics, percent female and percent married for both professional programs for the years 1970-80 (Note 5). In both programs, there has been a definite increase in female enrollment during the decade. The table also contains comparable information for all graduate and professional schools on the LSU Campus. According to the official records, the proportion of married students has declined over the 10 year period. The marital status information, however, is put into a student's record at admission,
Table 2
Student Enrollment

<table>
<thead>
<tr>
<th>Year</th>
<th>Law School Enrollment</th>
<th>%Female</th>
<th>%Married</th>
<th>%Married Males</th>
<th>%Married Females</th>
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</thead>
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<td>909</td>
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<tr>
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<td>855</td>
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<td>41</td>
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<tr>
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<td>946</td>
<td>9</td>
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<td>37</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>School of Veterinary Medicine Enrollment</th>
<th>%Female</th>
<th>%Married</th>
<th>%Married Males</th>
<th>%Married Females</th>
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<td>44</td>
<td>41</td>
<td>49</td>
</tr>
<tr>
<td>1977</td>
<td></td>
<td>41</td>
<td>42</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td>49</td>
<td>43</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td>48</td>
<td>42</td>
<td>39</td>
<td>45</td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td>49</td>
<td>40</td>
<td>37</td>
<td>43</td>
</tr>
</tbody>
</table>

*(The School of Veterinary Medicine began operation in the Spring 1973 semester.)*


1Female
2Married
3Married Males
4Married Females
and is not updated in any systematic way. Since the marital status in the official records is inaccurate, a special procedure was used to get accurate marital status information. In this study, students were classified as married or single. The latter category included people who are divorced.

**Procedure**

For both professional schools, computer personnel who normally handle the records were asked to prepare files of information without any student identification. This information included GPA for the current semester, sex, marital status, year in the program, and the performance measures that are used as admission criteria. For the veterinary school, admission criteria include the MCAT and the following undergraduate GPA scores: GPA for all required courses, for the required science courses, and for the last 45 hours of coursework. For the law school, admission criteria include score on the LSAT and undergraduate GPA.

Because of differences in the two schools, slightly different procedures were used to obtain marital status. At the School of Veterinary Medicine, with only 320 students, many students are known personally by administrative personnel. They reviewed the list of students and the marital status that was recorded and noted changes. These lists were then compared to the marital status information provided by students who volunteered to participate in the survey (Study 3). Finally, class representatives and other students reviewed the lists and verified the accuracy of marital status for each student.
All students in the second, third and fourth classes, a total of 235 subjects, were included in the analysis.

At the Law Center, the Student Bar Auxiliary prepares a student directory at the beginning of the fall semester of each year. The directory is compiled from information provided by students at registration and includes the name of the spouse for married students. A copy of the directory was obtained from the president of the Student Bar Auxiliary. That information was compared to the marital status information provided by students who volunteered to participate in the survey. Since only four discrepancies were found, it was believed that the marital status information in the directory was accurate. There were approximately fifty students registered for the fall semester who were not listed in the directory and did not volunteer for the survey. The campus directory, the Baton Rouge telephone book and telephone information service were used to identify these students. Those who could be identified were contacted by telephone, informed as to the general nature of the study, and invited to provide their marital status. All but one of those contacted did provide their marital status. Twenty of the 812 students registered for the fall semester could not be contacted and were thus excluded from the analysis. Since the computer files that are maintained by the Law School do not include sex, that information was added based on the given names of the students. For three students, Terry, Mickey and Robin, sex could not be determined; these students were excluded from the study. A total of 438 students in the second and third years of law school were included.
Analysis

The analysis was done with the General Linear Model Procedure of the Statistical Analysis System (Barr, Goodnight, Sall and Helwig, 1976). The various admission criteria were independent variables in a check of predictive validity of semester GPA. Those admission criteria with significant predictive validity were examined for a sex-by-marital status interaction.

An analysis of variance was performed with semester GPA as the dependent variable, main effects of sex, marital status and year in the program, and an interaction term of sex-by-marital status. An analysis of covariance was done with these variables, and the admission criteria with significant predictive validity as covariates. In both these analyses, since the model was unbalanced, the Type IV sums of squares were used.

Results

Law students

Both admission criteria, LSAT score and undergraduate GPA, were significantly related to GPA for the current semester (LSAT: $F(1,406) = 19.3, p < .0001$; undergraduate GPA: $F(1,406) = 31.5, p < .0001$). These variables were tested for a significant sex-by-marital status interaction and the null hypothesis was retained.

In both the analysis of variance and covariance with semester GPA as the dependent variable, the null hypothesis, that the sex-by-marital status interaction term would not be significant, was retained. Visual
inspection of the means by sex and marital status showed that semester GPA was slightly higher for married females and single males than for their same-sex counterparts. Means of the LSAT and undergraduate GPA were higher for married than for single females. For males, single students had higher GPA's but lower LSAT scores than married males.

Veterinary students

The predictive validity of various admission criteria for GPA in the current semester was tested. Only one criterion, undergraduate GPA for courses required for entrance to veterinary school (RGPA), was significant ($F(1, 231) = 18.55, p < .0001$). RGPA was tested for a significant sex-by-marital status interaction and the null hypothesis was retained.

In both the analysis of variance and covariance with semester GPA as the dependent variable, the null hypothesis, that the sex-by-marital status term would not be significant, was retained. Visual inspection of the means showed that they were in the hypothesized direction, with married males performing considerably better than single males, and single females performing slightly better than married females.

STUDY 2

Method

Since the results of Study 1 for veterinary students did not yield a significant sex-by-marital status interaction and the interaction term was significant in the pilot study of veterinary students, Study 2 was undertaken to explicate the differences between the two analyses.
The first analysis in the pilot study only included students who had taken the new Medical College Admissions Test (MCAT). The difference between these students and students in the same class who took the old Medical College Admissions Test was that the latter group had applied previously to the veterinary school, (and thus took the old MCAT, because that was the test available at the time) and had not been admitted. Because admission to the veterinary school is determined by an arithmetic combination of previous grades and other criteria, non-accepted students are counselled to retake key courses and thus bring up their score for possible admission in a subsequent year. Those who are accepted in a later year have improved their grade point average and successfully competed with students who are applying for the first time.

Thus it was hypothesized that students who had applied previously, been denied admission, and were later accepted, were different in critical ways from first-time applicants. For students who were accepted the first time they applied, it was hypothesized that the sex-by-marital status interaction would be significant, with married males and single females performing better than their same-sex counterparts.

Subjects
Subjects for Study 2 include all students in the second, third or fourth year of veterinary school.

Procedure
The information as to whether a student had applied previously was added to the data base. This was determined by matching the admissions
files for classes 1978 through 1982 to the file of current students. Roughly 30% of students currently enrolled had applied previously one or more times prior to being accepted.

**Analysis**

The analysis was identical to that of Study 1, with the added information of whether or not a student had applied previously. The analysis of variance, with semester GPA as the dependent variable, included main effects sex, marital status, applied previously, and year in the program. All combinations of sex, marital status and applied previously were included as interaction terms.

As in Study 1, the analysis of covariance included all of the above variables with the admission criterion that had significant predictive validity as a covariate.

**Results**

In both the analysis of variance and covariance, the interaction term of sex-by-marital status-by-previous application was significant. The results of the analysis of covariance are given in Table 3. In both the analysis of variance and the analysis of covariance with only these students who had not applied previously, the sex-by-marital status term was significant (analysis of variance: $F(1,155) = 5.3, p < .03$; analysis of covariance: $F(1,154) = 6.3, p < .02$). The means for semester, cumulative and required GPA (an admission criterion) for the three-way interaction term are presented in Table 4. Figure 2 contains a graph of semester GPA. For students who had not applied previously, the interaction of sex and marital status is in the
Table 3
Analysis of Covariance

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1</td>
<td>0.06</td>
<td>.46</td>
<td>N.S.</td>
</tr>
<tr>
<td>Marital Status (MAR_STAT)</td>
<td>1</td>
<td>1.23</td>
<td>9.74</td>
<td>.002*</td>
</tr>
<tr>
<td>Previous application (PREV_APP)</td>
<td>1</td>
<td>0.04</td>
<td>0.35</td>
<td>N.S.</td>
</tr>
<tr>
<td>Sex x MAR_STAT</td>
<td>1</td>
<td>0.00&lt;sup&gt;1&lt;/sup&gt;</td>
<td>0.00&lt;sup&gt;1&lt;/sup&gt;</td>
<td>N.S.</td>
</tr>
<tr>
<td>Sex x PREV_APP</td>
<td>1</td>
<td>0.00&lt;sup&gt;1&lt;/sup&gt;</td>
<td>0.00&lt;sup&gt;1&lt;/sup&gt;</td>
<td>N.S.</td>
</tr>
<tr>
<td>MAR_STAT x PREV_APP</td>
<td>1</td>
<td>1.00</td>
<td>7.92</td>
<td>.005*</td>
</tr>
<tr>
<td>Sex x MAR_STAT x PREV_APP</td>
<td>1</td>
<td>0.87</td>
<td>6.86</td>
<td>.009*</td>
</tr>
<tr>
<td>Year</td>
<td>2</td>
<td>1.24</td>
<td>9.79</td>
<td>.0001**</td>
</tr>
<tr>
<td>RGPA</td>
<td>1</td>
<td>2.20</td>
<td>17.42</td>
<td>.0001**</td>
</tr>
<tr>
<td>Error</td>
<td>224</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup>Value < .005

*p < .01

**p < .001
Table 4
Means GPA scores of SVM students by Sex, Marital Status, and Previously Applied

<table>
<thead>
<tr>
<th>Previously Applied</th>
<th>Sex</th>
<th>Marital Status</th>
<th>N</th>
<th>Semester</th>
<th>Mean GPA</th>
<th>Cumulative</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>F</td>
<td>S</td>
<td>45</td>
<td>3.41</td>
<td>3.30</td>
<td>3.71</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>F</td>
<td>M</td>
<td>13</td>
<td>3.26</td>
<td>2.98</td>
<td>3.66</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>M</td>
<td>S</td>
<td>61</td>
<td>3.14</td>
<td>3.04</td>
<td>3.62</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>M</td>
<td>M</td>
<td>42</td>
<td>3.26</td>
<td>3.12</td>
<td>3.53</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>F</td>
<td>S</td>
<td>8</td>
<td>2.98</td>
<td>2.65</td>
<td>3.39</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>F</td>
<td>M</td>
<td>7</td>
<td>3.43</td>
<td>3.18</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>M</td>
<td>S</td>
<td>29</td>
<td>3.07</td>
<td>2.92</td>
<td>3.38</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>M</td>
<td>M</td>
<td>30</td>
<td>3.20</td>
<td>3.05</td>
<td>3.27</td>
<td></td>
</tr>
</tbody>
</table>
Figure 2  Semester GPA BY Sex, Marital Status and Previously Applied

PREV-APP 'NO'

PREV-APP 'YES'
hypothesized direction. For students who had applied previously, married students of both sexes perform better than their single counterparts. The graph of required GPA (Figure 3) shows that there are no significant interactions at the time of admission.

STUDY 3

Method

The third part of this investigation was an exploratory study of factors that might be related to the differential effect of marital status for students in professional school.

Subjects

Volunteers were solicited from current students at the Law School and the Veterinary School. A form was distributed to students at both schools requesting their participation and inviting them to provide information about their sex and marital status (see Appendix A). Since the original pool of participants consisted of volunteers, they probably are not representative of the student body and thus generalizability is limited. Married subjects were selected from the pool of volunteers. An attempt was made to contact all married women who volunteered for the study. Of the 45 women who volunteered, 40 were available and were interviewed. Since more married men volunteered for the study, the male sample was stratified to match the sample of females for year in the program. Subjects were selected by availability. Thus, male students who tend to be at home more frequently were more likely to be interviewed. In total, 80 interviews were conducted, 20 interviews of each sex at each school.
Figure 3

Required GPA (Admission criterion) by Sex, Marital Status and Previously Applied
Design of the Interview

For procedural and technical aspects, recommendations of Dillman (1976) were followed. For content, besides the literature already reviewed, the instruments in Snyder (1978) and Pendleton, Poloma and Garland (1980) were examined.

Many versions of the questionnaire were informally pilot-tested with both friends and strangers. As originally formulated, the content would include sex-role and gender role concepts, (similar to those used in Andberg, Follett and Hendel, 1979, and Rosen, 1974), and single and married students of both sexes would be subjects. Single people were to be asked questions relating to sex-role concepts and their answers would be used in the analysis as a control for sex differences. The results that were obtained in pilot testing were inconsistent, and highly sensitive to slight differences in wording. With friends, the results did not seem valid, and it quickly became apparent that actual attitudes and behavior were very complicated. For example, both male and female married subjects reported "strongly agree" to equal sharing of home management, and earlier or later, depending on sequence, reported quite unequal hours per week devoted to the task. Further inquiry provoked hostility. Komarovsky's (1973) study provided external validation for the experimenter's observations. For this reason, since this part of the study was exploratory in nature, it was decided to avoid sex-role and identifiably gender role questions. At the same time, it was noted that it was exceedingly difficult to word items for both single and married people, because their experience
is quite disparate. Coombs and St. John (1979) report that in medical school the first and strongest cliques that form are the single versus married. For these reasons, it was decided not to include single people. Other items, for married people, asked the student to rate the level of spouse support (as Berkove, 1979, used for married women), for various components of support. It was found that both sexes rate spouses within the context of their sex-role expectations, which are quite different. The student husband expects his wife to support him; the student wife is grateful for whatever she receives. For example, the spouse of the student husband, who is spending 25 hours a week managing the home, gets rated down for sometimes being less than enthusiastic about his career goals. The student wife who is spending 25 hours per week in addition to professional school managing the home for her spouse, gives her spouse the highest rating because he is "letting her" go to school. So it seemed advisable to attempt to operationalize both spouse support and role conflict into specific behaviors, and pilot test the items with married graduates of both the Law School and the Veterinary School.

In addition, open-ended questions were used to gather more specific information about role conflict and support of spouse.

Procedure

The procedure of data collection was to administer a 15 minute telephone interview to each subject. The questions that were asked
in the interview are given in Appendix B. The answers were recorded by the telephone interviewer; no names were recorded on the answer sheets.

Analysis

To construct numerical weightings for support of spouse and role conflict, four independent judges, two of each sex, were asked to assign weights to the relevant questionnaire items. All four judges had been or were in school while married. Three were professors: one was on the Law School faculty, another was at the Veterinary School, and the third was on the Psychology Department faculty. The fourth judge is the spouse of a professor of the Veterinary School, and, having reared her family, is currently enrolled as a full-time undergraduate. Written instructions to the judges are contained in Appendix C. They were not informed as to the specific hypothesis of the study. Reliability coefficients were computed for their judgments and their judgments were averaged to construct the numerical weightings for questionnaire items.

Most of the answers to questionnaire items were given by the subject on a one to five scale. A few questions only allowed a yes or no answer; for these items, a score of 5 was assigned for a yes response and a score of 1 for a no response. Two items on the questionnaire referred to hours of time spent in home management per week by the student and spouse. The hours were converted to
percentages of work for the student and the spouse. These two percentages and the item that referred to proportion of friends that were in school, were converted to a 1 to 5 scale by visual inspection of the distribution of responses (see Appendix D for details). All questionnaire items, scaled from 1 to 5, were matched to the numerical weightings of the judges to compute scores for each subject for role conflict and support of spouse.

The three variables: support of spouse, role conflict and proportion of home management done by the student were dependent variables in an analysis of variance with sex as the independent variable and social status code as the covariate. The occupation of spouse was given a socioeconomic status code (SES) based on the McGuire-White classification system (Note 6). A similar analysis was performed with educational level as the covariate. Educational level was coded according to an expanded form of the McGuire-White coding system (see Appendix D for details). Since proportions are statistically difficult, the coded version of proportion of home management was used in the analysis of variance.

Since there were a sufficient number of subjects, the two constructs-spouse support and role conflict-were dependent variables in an analysis of variance with independent variables sex, SES, school, and an interaction term of sex and school. If significant differences by school were found, then the original analysis was done for each
school separately, and the questionnaire items that contribute to the construct were tested for differences by school.

The demographic information at the end of the questionnaire included age, year in the program, years of marriage, age at marriage, children and whether the student is currently employed. These variables were recoded into groups if necessary, and used as independent variables in an analysis of variance of spouse support and role conflict.

All subjects were asked to provide their cumulative grade point average. A linear regression was done of GPA versus spouse support, role conflict and the coded version of the proportion of home management done by the student. Because the grading systems of the law school and the veterinary school are different, cumulative GPA for all students in each school was ranked on a 1 to 10 scale. The GPA for each student who was interviewed was then converted to a decile rank, and the ranks were used in the linear regression. Sex of the student was also an independent variable.

The above analysis was considered less than optimal because there was no independent variable that related to differences in ability or previous performance. This information was not available for law students, but it was possible to match veterinary students who were subjects in the interview to the file of admission information. For veterinary students only, an analysis was done of decile rank versus the admission criterion required GPA, spouse support, role conflict and home management.
All items on the questionnaire were analyzed by the Kolmogorov-Smirnov two-sample test (Siegel, 1956) for sex differences.

Results

Judges' Results

The correlation coefficients of the weightings of each judge with the average of the other three judges for both spouse support and role conflict are given in Table 5.

Table 5
Correlation Coefficients for Weightings of Judges

<table>
<thead>
<tr>
<th>Construct</th>
<th>Judge 1</th>
<th>Judge 2</th>
<th>Judge 3</th>
<th>Judge 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support of Spouse</td>
<td>.54</td>
<td>.87</td>
<td>.73</td>
<td>.64</td>
</tr>
<tr>
<td>Role Conflict</td>
<td>.76</td>
<td>.52</td>
<td>.69</td>
<td>.67</td>
</tr>
</tbody>
</table>

Both these correlation coefficients and the individual correlation of each judge with every other judge were significant ($p < .05$). Thus the reliability of the weightings was considered acceptable, and the weightings were combined to develop scores for role conflict and support of spouse for each subject (see Appendix E). For both constructs, there were one hundred points available. The higher the score, the more spouse support and less role conflict. Actual scores for spouse support ranged from 32 to 95, with a mean of 77 and a standard deviation of 11. Scores for role conflict ranged from 32 to 85, with a mean of 60 and a standard deviation of 11. Role conflict weightings were correlated negatively with weightings for spouse support.
support \((r = -0.46, p < 0.004)\). Subject scores for the two constructs were correlated significantly for females \((r = 0.53, p < 0.0005)\), but not for males \((r = 0.13, p > 0.40)\).

**Tests of Hypotheses**

In the analysis of role conflict, both sex \((F(1, 77) = 11.5, p < 0.001)\) and SES code \((F(1, 77) = 5.6, p < 0.02)\) were significant. The means of role conflict scores by sex and SES code are given in Table 6. Since the lower the score, the more the role conflict, the means shows that married women students have more role conflict than married men students, as hypothesized. The means for SES code indicate that the higher the status of the spouse, the greater the role conflict for the student. In the analysis of role conflict with educational level as the covariate, sex was significant, but the educational level of the spouse was not significant.

In the analysis of spouse support, sex was not significant; thus the null hypothesis, that married women receive as much support from their spouses as married men, was retained.

In the analysis of home management, both sex \((F(1, 77) = 4.02, p < 0.0001)\) and SES code \((F(1, 77) = 6.9, p < 0.02)\) were significant. The means are shown in Table 6. Since the lower the mean, the greater the share of home management, the means indicate that married women students do a greater proportion of home management than married men students, as hypothesized. Again, the higher the SES of spouse, the greater the share of home management done by the student. In the
Table 6
Mean Scores for Role Conflict and Home Management by Sex and SES Code

<table>
<thead>
<tr>
<th>Sex of Student</th>
<th>N</th>
<th>Role Conflict</th>
<th>Home Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>40</td>
<td>54.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Male</td>
<td>40</td>
<td>64.9</td>
<td>4.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SES Code of Spouse</th>
<th>N</th>
<th>Role Conflict</th>
<th>Home Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>55.2</td>
<td>2.4</td>
</tr>
<tr>
<td>2</td>
<td>28</td>
<td>55.7</td>
<td>3.1</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>63.0</td>
<td>3.6</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td>67.9</td>
<td>4.5</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>63.3</td>
<td>3.0</td>
</tr>
</tbody>
</table>
analysis of variance with educational level as the covariate, the educational level of the spouse was not significant.

**Differences by School**

In the analysis of spouse support, none of the variables tested was significant. For role conflict, the main effect, school, was not significant, but the interaction term, school-by-sex, was significant ($F(1,75) = 5.4, p < .03$).

The means for role conflict and the questionnaire items with significant differences are shown in Table 7. The means for role conflict indicate that the sex difference is much greater for veterinary students than for law students. Of the four groups, male veterinary students have the lowest scores for role conflict, and female veterinary students have the highest. In the analysis of variance for each school separately, there is not a significant sex difference for law students, but there is for veterinary students ($F(1,37) = 27., p < .0001$). Examination of means for significantly different questionnaire items shows that the home management tasks of meal preparation and house cleaning follow the same pattern as the role conflict scores; that is, that although female law students do more of these tasks than male law students, the sex difference for veterinary students is much greater. For the other items, the female law students appear to be at an advantage compared to the male law student. During exams, her spouse will do more of the chores that she normally does, she is less willing to do things related to her spouse's occupation, and her spouse is more likely to have the responsibility of paying
Table 7

Mean Scores by School and Sex

<table>
<thead>
<tr>
<th>Role Conflict</th>
<th>Law School</th>
<th></th>
<th>Vet School</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Role Conflict</td>
<td>62</td>
<td>57</td>
<td>67</td>
<td>52</td>
</tr>
<tr>
<td>Questionnaire items:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- During exams, spouse do your chores</td>
<td>4.0</td>
<td>4.4</td>
<td>4.6</td>
<td>3.7</td>
</tr>
<tr>
<td>- Willingness to do things related to spouse's career</td>
<td>4.1</td>
<td>3.9</td>
<td>3.7</td>
<td>4.6</td>
</tr>
<tr>
<td>- Home management task responsibility - self or spouse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paying bills</td>
<td>3.0</td>
<td>3.2</td>
<td>3.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Meal preparation</td>
<td>3.7</td>
<td>2.7</td>
<td>4.4</td>
<td>2.0</td>
</tr>
<tr>
<td>House cleaning</td>
<td>3.5</td>
<td>2.9</td>
<td>3.8</td>
<td>2.4</td>
</tr>
</tbody>
</table>
bills. For these items, the female veterinary student is at a considerable disadvantage compared to the male veterinary student.

Visual inspection of the means of questionnaire items that the judges used for role conflict showed that, of the 25 items, three contributed more role conflict for male veterinary students than for females, and 19 items contributed more role conflict for females than males. Share of home management and responsibility for specific tasks contributed less than 2/3 of the 15 point difference between male and female veterinary students. Other items that contributed substantially to the difference include: the priority of studying during the evening and on weekends, performance of activities related to the spouse's occupation and willingness to perform these activities, performance of activities related to the extended family, and spouse's performance during exams of chores normally done by the student.

Other Variables

Both constructs, role conflict and support of spouse, were examined for differences in year in the program, age of student, years married, age at marriage, presence of children, and whether or not the student was employed. There were no significant differences with respect to spouse support, and all but one variable was not significant with respect to role conflict. Age of student was significantly related to role conflict ($F (1,74) = 4.03, p < .03$). The means of role conflict by age are given in Table 8.
Table 8
Mean Scores for Role Conflict

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean for Role Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-24</td>
<td>25</td>
<td>54</td>
</tr>
<tr>
<td>25-28</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>29 and older</td>
<td>23</td>
<td>60</td>
</tr>
</tbody>
</table>

Since the lower the score, the greater the role conflict, the means indicate that youngest students have the most role conflict, followed by the oldest students, and students in their late twenties have the least role conflict.

GPA versus Questionnaire

In the linear regression of GPA versus spouse support, role conflict and home management, with all interview subjects, only home management was significant ($F(1, 75) = 5.8, p < .02$). In the regression with veterinary students only, spouse support was significantly related to GPA ($F(1, 35) = 4.2, p < .05$). In both cases, the sign of the coefficient was in the hypothesized direction; the more spouse support, the higher the GPA, and for share of home management, the greater the share, the lower the GPA.

Analysis of Individual Questionnaire Items

Items listed in Table 9 were significantly different by sex. All items except "Taking care of the car" show a significant benefit to the male student. "Taking care of the car" is most often done by the male,
Table 9

Questionnaire Items with Significant Sex Differences

<table>
<thead>
<tr>
<th>Item</th>
<th>$K_D$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your spouse help in some way with school related activities?</td>
<td>13</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Proportion of home management done by spouse</td>
<td>18</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Meal preparation - done by student or spouse</td>
<td>22</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Kitchen cleanup - done by student or spouse</td>
<td>15</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Laundry - done by student or spouse</td>
<td>23</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Food shopping - done by student or spouse</td>
<td>15</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>House cleaning - done by student or spouse</td>
<td>19</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Taking care of the car - done by student or spouse</td>
<td>29</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

$K_D$ is the statistic calculated in the Kolmogorov-Smirnov two-sample test (Siegel, 1956).
whether student or spouse. Figure 4 is a graph of the means by sex of the home management tasks in Table 9. The two outer lines represent responsibility for tasks by the male student and female spouse, and the inner lines depict task responsibility for the female student and male spouse. If the sample in this study of the male student-female spouse situation can be taken as the traditional situation, the graph shows that spouses of female students depart considerably from traditional role behavior. Kitchen cleanup is most likely to be shared, while meal preparation and laundry are more likely to be done primarily by the female student.

Subjective impressions of the Survey

At the end of the interview, some open-ended questions were asked, and subjects were encouraged to discuss any issues that they had. In response to the open-ended questions about any other factors related to spouse support and role conflict, most of the people reported that all of the relevant components had been covered very well. The one exception was taking care of children. About 30% of the subjects had children, and no items were specifically addressed to child care.

In response to the question "If you were single, would being in school be a very different experience", most subjects discussed the tradeoff for married students; the benefit of being married is the support of a spouse and the cost is the role conflict. Because of the time and energy required by the program, it is very difficult to establish an intimate relationship during the years in the program. The loneliness and isolation of the single student were frequently
Figure 4
Responsibility for Home Management Tasks

- Female Student
- Female Spouse
- Male Student
- Male Spouse

Tasks:
- Meal Preparation
- Kitchen Cleanup
- Laundry
- Food Shopping
- House Cleaning
- Car Care
mentioned. The cost or disadvantage of the married state is the role conflict. The student who is single can totally organize his or her life around the school requirements and can reorganize time when it is needed. In contrast, the married student must constantly juggle the needs of his or her spouse for time and energy.

A critical element in spouse support is flexibility, which allows the student freedom to respond to unexpected demands of the program. Most of the married students reported that their spouses were very supportive, and they expressed in some way that, while they were in school, their spouses were contributing more than 50% to the relationship. Strong marital relationships were characterized by open communication between student and spouse, high quality time together on a regular basis, and a shared goal of getting the student through the program. Marriages were troubled according to the extent to which the spouse interpreted lack of attention as a lack of affection. Students in troubled marriages seemed to be unaware of counselling facilities at the Mental Health Service on campus, and were invited by the interviewer to talk with someone there.

A number of students expressed interest in some kind of orientation at the beginning of the program for spouses, both to allow them to feel that they are participants in the process, and to warn them of the pressure on the student that will require sacrifice from them.

Some sex differences were noted by the interviewer. Married women were easier to contact by phone than married men because the women tend
to study at home and the men tend to study at school. A few of the
women reported that they study at home because it makes it easier to
combine home management tasks and studying. Generally, the content of
the interview was more anxiety-provoking for women than for men. Men
seemed to be more comfortable than women in giving a negative rating
about their spouses. A negative rating from a woman was more likely to
be preceded by a pause and followed by an explanation. This fits in
with Bernard's (1972) idea that women are more invested than men in
the marital role. The interviewer was concerned about validity with
some of the responses from women. In one case, a woman stated that her
husband spent as many hours per week as she did in home management
tasks, and then reported that she had primary responsibility for all
home management tasks except for car care. She explained that although
the information might seem discrepant, her husband took care of the
outside of the house, while she managed everything inside the house.
The sex difference noted in the pilot, that men expect their spouses to
be supportive, and women appreciate their spouses' "letting" them go to
school, was also apparent. In the open-ended questions about spouse
support at the end, women tended to repeat items already mentioned,
while men produced more other things; e.g. "She buys all my clothes,"
"She chauffeurs me everywhere."

Women tended to be more generous in their evaluations. A woman in
law school, after giving the highest rating possible for the general
item "Is your spouse supportive of your being in school?" and most of
the individual items, mentioned afterward in discussion that the
interviewer had not asked the right questions. Her husband is extremely threatened by her student role, and she organizes her work so as to minimize his involvement. In her first year of law school, he was very supportive because he believed that she needed all the help she could get, but when it became clear that she was doing extremely well, his attitude changed dramatically.

Another woman, after giving her spouse the highest rating for "not bringing up other issues or problems until after exams" mentioned that her husband had decided to have minor elective surgery during her exams in the previous semester. As she described it, the timing of the operation was at his discretion. She spent a considerable amount of time traveling back and forth to New Orleans because of the surgery.

**STUDY 4**

**Method**

Study 4 was undertaken to investigate the differences between married veterinary students who had applied previously and those who had not.

**Subjects**

Students at the School of Veterinary Medicine who were subjects in Study 1 (second, third and fourth year students) and participated in the interview (Study 3) were included in this analysis. There were a total of 22 such students, 11 male and 11 female.
Procedure

The information from Study 2, applied previously or not, was matched to the twenty-two students from whom interview information had been collected.

Analysis

The two constructs, role conflict and spouse support, were dependent variables in an analysis of variance with independent variables, sex, applied previously and their interaction. If significant differences were found for a construct, then the interview items that contribute to it were examined in a similar way.

Results

The interaction term was not significant in any of the analyses, and the sex differences were similar to those found in Study 3. Students who had applied previously to the veterinary school had significantly different results for spouse support ($F(1,18) = 7.15$, $p < .02$), and two interview items: spouse consolation when the student is tired and discouraged ($F(1,18) = 10.74$, $p < .005$) and spouse doing something special for the student when the student is tired and discouraged ($F(1,18) = 12.91$, $p < .003$). The means for these variables are shown in Table 10.
Table 10
Mean Scores for Spouse Support and Questionnaire Items by
Applied Previously or Not

<table>
<thead>
<tr>
<th>Previous Applicant</th>
<th>N</th>
<th>Spouse Support</th>
<th>Consolation</th>
<th>Something Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>83.4</td>
<td>4.8</td>
<td>4.6</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>71.5</td>
<td>3.5</td>
<td>3.2</td>
</tr>
</tbody>
</table>

The results show that students who applied previously get more spouse support and more consolation and special treatment when they are tired and discouraged than students who did not apply previously. The raw scores for spouse support are plotted in Figure 5. They show that all of the students who had applied previously have a level of spouse support in the upper ranges of the distribution.

Visual inspection of the weighted questionnaire items for spouse support showed that the two items with significant differences contributed about 30% of the 12 point differences between spouse support for students who had applied previously and those who did not. Of the twenty-one questionnaire items that contribute to spouse support, eighteen favor students who applied previously and two items favor those who did not. Other items that make a substantial contribution to the difference between the two groups of students are as follows: spouse agreement with the priorities of the student, the spouse talking about school problems with the student, the spouse helping with school-related activities, and the spouse suggesting a special social occasion to celebrate the student's success.
Figure 5

SPOUSE SUPPORT BY APPLIED PREVIOUSLY

SUPPORT
OF SPOUSE

APPLIED PREVIOUSLY

NO

YES

70

80

90

100
DISCUSSION

The hypothesis that the married state is a benefit for the male and a detriment to the female was supported for students who were accepted the first time they applied to veterinary medical school. The hypothesis was not supported for students who had applied previously; for those students, the results would indicate that being married was a benefit for students of both sexes. The hypothesis was not supported for law students; the results showed no significant effects by sex and marital status. Results of the survey indicate a significant sex difference for role conflict for married veterinary medical students but not for law students. Married students of both sexes who had applied previously to veterinary school received significantly more spouse support than those who were accepted the first time they applied.

The organization of this discussion will be by student group rather than by study because the various parts of this investigation shed light on one another. Before the discussion of the student groups, a few general comments seem appropriate. Interpretation of these results should be done cautiously for a number of reasons. The different findings for the three student groups were not predicted. Because of the pattern of significant differences for one group of students, and the failure to find significant differences for another, discussion of these results involves accepting the null hypothesis. Combining the results of the performance analysis and the survey is somewhat risky, because the survey respondents were volunteers, and may
not be representative of the student groups as a whole. The methods used in contacting subjects in the different populations were quite similar, however, and this author cannot identify elements of the method that would introduce bias among the three groups. Finally, interpretation of the survey results needs to be done carefully because the eighty people who were interviewed represented eighty unique situations with diverse adjustments to the sensitive issues surrounding sex-role concepts and behavior. On the other hand, responsible research includes making sense of the results of an investigation. The following sections attempt to do this for the three student groups.

Veterinary students who were accepted the first time they applied

For this group of students, support was found for a differential performance effect by sex and marital status, and for significantly greater role conflict for married women than married men. These results concur with those of Feldman (1972) who found for graduate students, a significant sex-by-marital status interaction in performance of achievement-related tasks. Previous research with grade-point average (Banreti-Fuchs & Meadows, 1976; Knapp & Magee, 1979; Pulvino & Hansen, 1972) suggests a relationship between academic performance and both mental health and lack of stress. These results suggest that married female students and single male students may be in a more stressful situation than their same-sex colleagues. These findings are similar to those of Koester & Clark (Note 2) that married women and single men who work in an academic setting report more stress-related symptoms than do single women and married men.
These results also concur with the finding of Kelman (Note 7) that married female veterinary students report more negative feelings to the item "how I generally feel when I am on campus (in class or studying at school)" than do married male students.

Direct support in this study for a relationship between GPA and role conflict was not found. However, the significant negative relationship between GPA and proportion of home management done by the student suggests that the bulk of the difference in role conflict, responsibility for home management tasks, does have a negative effect on academic performance. Also the pattern of results, such that veterinary students admitted on first application have the hypothesized sex-by-marital status interaction and significantly different amounts of role conflict by sex for married students, while law students have neither, suggests a relationship.

Mention was made earlier of the tradeoff for married students between the benefit of a supportive spouse, and the cost of increased role conflict. The significant difference by sex in role conflict but not in spouse support suggests that for married men, the increase in role conflict is more than offset by a supportive spouse; for married women, the much greater increase in role conflict is not balanced by a supportive spouse. The data showing increased role sharing by the spouse when the female is a student indicate that husbands of students in professional programs depart considerably from traditional sex-role behavior. These spouses do considerably more than their "traditional" share, but they do not provide the same quality of environmental support that female spouses provide for their mates. These male
spouses do not appear to be unfair to their mates; the influence on both partners of traditional sex-role concepts create the conflict for married women students.

Mention has been made in this document of reports of married female students who are troubled (Note 1). By the time such a situation comes to the attention of administrative personnel and faculty of the school, it is usually quite serious. There are two ways the student can resolve the problem: leave school or get divorced. Examination of records at the school of veterinary medicine showed that, of students currently enrolled, seven people, all female, have dropped out of the program. Six of the women were married, and for three of them, it was reported that marital difficulties were related to their decision to terminate. In this analysis, people who have terminated were not included, and people who are divorced were included in the single group. The results of this analysis suggest the pervasive nature of the role conflict that has had long-term consequences for a few married women.

The crucial difference between this group of students and those who applied previously is probably that the latter group are all highly motivated, while students in this group represent the full range of motivation.

Veterinary students who applied previously

Results of the analysis for this group of students indicated that married students of both sexes perform better than their single counterparts, and married students in this group receive significantly
more spouse support than married students who were accepted the first time they applied.

Students in this group applied to veterinary school and were not accepted, waited for at least one year during which they took more courses, applied again and were accepted. As a group, they are probably less able than students who were accepted on their first application. Since such students receive no special consideration as reapplicants, they may have been underachievers who could perform much better when they needed to. To accept the rejection from the school, improve one's performance, and wait a year to begin a four-year program suggests that these students are highly motivated and able to delay gratification.

Some of these students were married the first time they applied and some married later. Of those who were married when they first applied, possibly people with spouses who were less supportive of their occupational goal did not try again. People who married later, with their higher level of motivation, probably chose a spouse who was strongly supportive of their professional goal.

The significant relationship between spouse support and GPA for veterinary students documents the beneficial relationship between performance and a supportive spouse. Although the women in this group do have significantly more measured role conflict than the men, it makes sense that a spouse with a strong commitment to one's success at school would attenuate one's feeling of role conflict. A highly supportive spouse would be less likely to criticize if home management
tasks were not done and more likely to sympathize with burdensome school demands. The law student who mentioned her husband's support when he believed she needed all the help she could get may be relevant here. The two items with significant differences between students who applied previously and those who were accepted the first time they applied both relate to special treatment from the spouse when the student is feeling tired and discouraged. Spouses of students who were not accepted in their first application to veterinary school may find it easier to accept that the program is very difficult and that the bulk of the student's energy is required for successful performance.

Since the results for men in this group are similar to those in the previous group, while the effect of marriage for these women is quite different than for women accepted the first time they applied, these women may have some special characteristics. The pattern of underachievement suggests that these women may be highly ambivalent about the integration of career and achievement goals into their female role. They may fit the pattern of "fear of success" (Horner, 1972). The substantial performance difference between married and single women suggests that marriage to a highly supportive spouse may help to resolve their ambivalence.

Faculty and administrative personnel at the school of veterinary medicine who examined the names of students in these two groups characterized the married women as very stable and solid students, "salt of the earth" types. The single women were highly social, more likely to be involved in school activities and generally play a strong social role in their class. Houpt and Calhoun
(1977) suggest two strategies used by women veterinary students for coping with fear of success; one is to become a superwoman, the perfect wife and perfect student; another is to become a caricature of the female role-seductive, helpless and dependent. One woman in the survey fit the superwoman pattern; she reported that she organizes food preparation by freezing dinners in advance so that she and her husband can have regular meals when she has exams or a large amount of school work. Although there is currently no research support for fear of success motivation in these single women, it would be an interesting sample to study in this regard.

Law Students

Results for law students showed no effect of being married for either sex, i.e. no benefit to the males and no detriment to the females. Survey results for law students did not show a significant sex difference for either spouse support or role conflict. These two analyses taken together suggest that law students behave in less sex-role stereotypic ways and thus there is no differential effect of marriage by sex. These results concur with those of Ferber & Huber (1979) who suggest that with increased role-sharing, the occupational benefit of marriage for the man is decreasing. Of major interest are reasons why these results are so different from the veterinary students. The author could find no research that included both law and veterinary medical students, or even similar items from different research projects that could be used to shed more light on the
differences between these groups. Nonetheless, an attempt will be made to construct reasonable hypotheses about possible differences.

Veterinary students are more likely to be from rural areas and small towns; in Kelman's (Note 7) sample, 30% of veterinary students were from rural areas. Such students are likely to be less sophisticated than law students, and perhaps more traditional in their sex-role concepts.

Procedures for student selection at the two schools are quite different, and may increase success rates for different types of people. Competition is keen to be admitted to veterinary school, but once students are accepted into the program, the school tries very hard to keep them. Thirty percent of the admission criteria are subjective evaluations by faculty members of an interview and the student's application materials. The subjective portion might benefit more stereotypically male and female applicants. In contrast, acceptance to the law school is not as difficult, but only 70% of those accepted are still there at the end of the second semester. Grades in the program are the sole criterion for staying. A study of law students (Robert and Winter, 1978) demonstrated that more feminine women and more masculine men perform less well academically than students of either sex with a moderately masculine self-concept. Thus law students may be less sex-role stereotypic than veterinary students.

Some women have reported to this author that a major factor in choosing veterinary medicine was satisfaction from taking care of animals. This nurturing goal is very congruent with the traditional
female role. Reasons for choosing the profession of law, found by Robert and Winter, were the challenge of the profession, prestige, flexibility on the job market, and financial reward; no sex differences were found in this analysis.

Data on student age is not available for law and veterinary students as a whole, but in the survey, the mean age of men from both schools was 27; for women, it was 29 for law students and 25 for veterinary students. The significant role conflict differences by age group found in this study showed that role conflict is highest for students in the 21-24 age group and lower for older groups.

Examination of the survey items with significant differences by school and sex suggests that law women are highly strategic in minimizing role conflict where it will directly affect performance. One example is increased role sharing with their spouses during exams. This may be easier for law students than veterinary students because exams in law school occur only once at the end of the semester; tests and examinations occur throughout the semester in veterinary school. Also spouses of law women may be more amenable to role-sharing during exams because the primary criterion for future career opportunities for law students is grade point average. In contrast, academic performance in veterinary medical school is not a crucial variable for future career success. Married female law students' lesser willingness to support their spouses career sounds somewhat callous, but it may reflect a general unwillingness to subordinate their career goals to those of their spouses.
For married male students, the difference in the hours of organized activity at the two schools may be an important variable. Law students are in class 12-16 hours a week; veterinary students spend 30-40 hours per week in organized scheduled activity. The law student husband may do more role-sharing with his spouse because he can be at home during the daytime hours while his spouse is working.

The criteria for spouse selection may be quite different for the two groups. The male law student may want a spouse with social skills and status who will be an asset in his projected social milieu. The male veterinary student who plans to go into private practice may choose a wife who will share his practice by sympathetically dealing with clients, running the office, and assisting him with animal care.

Other Survey Results

It was hypothesized that both role conflict and share of home management tasks would correlate negatively with SES because of the dual-career conflict when the spouse of either sex is seriously pursuing a career. Previous research (Ericksen, Yancey & Ericksen, 1979) showed that increased role-sharing by the husband is negatively correlated with the husband's income. Hooper (1979) quoted a physician husband of a graduate student as saying "What does she expect? I can't leave patients sitting around the office while I wash the floor."

But the significant results are at variance with widespread beliefs that lower-class males are more "macho" and more chauvinistic. It is important to remember that women whose husbands are not at least
verbally supportive of their student role are not in professional school. These results show that among verbally supportive husbands, the lower his SES, the more likely the husband is to be instrumentally supportive. There are some other explanations for this in addition to the dual career hypothesis. Being the wife of a professional is a role in itself with certain responsibilities and status benefits, but being the wife of a skilled worker such as an electrician is not. Home management tasks are low status jobs, and the professional may believe that such work is beneath his dignity. Since he is ably providing for his family and thus fulfilling the stereotypical male role, the professional may believe that he should not be expected to perform duties of the stereotypical female role.

Previous research (Farkas, 1976) has shown a positive correlation between role-sharing and educational level. The lack of significance in this study may be because of confounding effects of SES and education. In this small sample, there is almost certainly a positive correlation between SES and education, and the negative correlation of role sharing with SES and a positive one of role sharing with education could cancel each other out.

The significant correlation for married females between spouse support and role conflict has been found in other research (Berkove, 1979; Van Meter, 1976). It makes sense that a genuinely supportive husband would attempt to reduce role conflict for his wife. The lack of significance for married males suggests that the less supportive wife of a student may minimize his role conflict out of a sense of duty.
Suggestions for future research

Interpretation of the results of this study would be enhanced by more research on students in professional programs. There has been little research documentation of the special characteristics and problems of these groups.

Future research on sex-by-marital status differences might be more fruitful if stress were measured directly rather than indirectly through academic performance. The adaptive strategy of many women that has been noted in the clinical literature (Houpt & Calhoun, 1977; Symonds, 1979) of becoming superwoman, both the perfect wife and the perfect student, while putting themselves under considerable stress, causes them to be missed if stress is measured indirectly through performance.

If large enough sample sizes were available, it would be of interest to know the consequences of other marital status possibilities (divorced, separated) and if there are sex differences for people who are cohabiting or in a serious relationship with a member of the opposite sex. It is likely that different sex-role concepts of males and females do cause differential effects in these situations. There were reports from students of single women whose performance is well below par with boyfriends who are not supportive of their student role. In regard to people living together, a substantial body of research suggests that they adhere quite strongly to traditional sex-role behavior patterns.
The results for married female veterinary students, which were quite different for those who applied previously than for those who were accepted the first time they applied, suggest that level of motivation is a discriminating variable. But it may be difficult to measure the difference. In this study, subjects were asked whether their whole life revolved around school, and to give a ranking to their various commitments. No significant differences were found in response to these items.

SUMMARY & CONCLUSIONS

The major hypothesis of this study was that the married state conveys a performance benefit to the male student and is a detriment to the female student. Differential effects of marriage by sex were hypothesized to be related to traditional sex-role concepts such that married female students receive less spouse support and have more role conflict than the male. The hypotheses were tested with law students and veterinary medical students. Performance was measured with GPA, and measures of spouse support and role conflict were developed from weightings of judges for items in a structured telephone interview.

Different results were obtained for veterinary students who were accepted the first time they applied than for those who were not accepted and reapplied. For veterinary students who were accepted the first time they applied, the main hypothesis was supported, and married female students had significantly more role conflict than males. For veterinary students who had applied previously, married students of both sexes performed significantly better than single students.
Married students who had applied previously received significantly higher levels of spouse support than did married students who were accepted the first time they applied. For law students, the major hypothesis was not supported, and there were not significant differences by sex for role conflict or spouse support.

Differences between the two groups of veterinary students were interpreted as reflecting different levels of motivation. Differences between veterinary and law students were believed to be related to different sex-role concepts. Veterinary medical students are more likely to be more stereotypically male or female, while law students of both sexes are more likely to hold moderately masculine self-concepts.

There was evidence that married female law students are highly strategic in minimizing role conflict when it will directly affect performance. For males, it was postulated that there are differences in criteria for spouse selection, with the veterinary medical student being more likely to select a wife with traditional sex-role concepts.

This study suggests that, with the sharp increase in female enrollment in professional school in the past decade, married women with traditional sex-role concepts are at a competitive disadvantage with married males. A number of coping strategies are suggested by those results. One is to choose a spouse who is strongly supportive of one's professional goals. Another is to be very strategic about role conflict and minimize it when performance is directly affected. Since this study showed a significant relationship between SES and role conflict, a third strategy suggested by this research is to choose a
spouse with lower SES who is more likely to be amenable to role-sharing.
REFERENCE NOTES

1. Personal communication with six administrative personnel and faculty at the Louisiana State University School of Veterinary Medicine and Law Center, August, 1980.


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Appendix A

Form Used for Solicitation of Subjects

The Psychology Department is conducting a research project comparing male and female students' experience in obtaining a professional degree. Your participation is voluntary, and any information that you provide will be kept totally confidential. Participation consists of answering questions in a fifteen minute telephone interview. You are free to decline to answer questions, or to terminate your participation at any time.

A random sample of subjects will be drawn from those people who agree to participate. If you would be willing to participate, please fill in the following information, and sign this form.

I would be willing to participate.

Sex
male □
female □

Marital Status
married □
not married □

Signature ____________________________

The School of Veterinary Medicine has expressed interest in this project and will be given the statistical results of the study. Of course, no information about any individual will be included in the report. If you would like a personal copy of the results, please give your mailing address.

____________________________________

Thank you for your cooperation.

Pat Cawunder
Psychology Department
Appendix B

Interview

Mr./Mrs. ______________________. My name is
and I am doing a research project on student's experience in
Veterinary/Law School. I would like to ask you some questions that
will take about 15 minutes of your time. Do you have some time now or
would you rather I called you at another time?

Your replies will be completely confidential. The
Veterinary/Law School will receive a copy of the results of the study,
but no names will be included.

1. Being a student in veterinary/law school is a major undertaking.
Would you agree or disagree with the following: My entire life
is organized around my school work. Is that true for you?

   Yes - go to 3
   No - go to 2

2.a. What other commitments do you have?

__________________________________________
Rank

__________________________________________

__________________________________________
School

2.b. Can you rank your commitments, including school? What's most
important?

2.c. Does your spouse agree with your priorities? Yes
No

3. For the people you and your spouse see socially on a regular
basis, are they mostly from the Veterinary/Law School?

What % - a quarter, half? __________________________

4. We are trying to find out things that a spouse can do that are
supportive to your being in school. I am going to read a list of
things that we have thought of. Some of them may not apply for
you - just let me know if they don't apply.

Can you tell me . . .

Would you say that your spouse is supportive of you being in
school? On a scale of 1 to 5, where 5 is all the time and 1
is never? _____
Does your wife/husband talk over your school problems with you? (1-5)  
How interested is your spouse in these topics? _____  

Does your spouse help in some way with school-related activities (e.g. type a paper)? ________________  

Does your wife/husband ever do an errand solely related to your needs (e.g. pick up your watch from repair shop, shoes from shoe repair, go to the store and get you something you need)? ____  

Bring you coffee or something to eat or drink while you are studying? ______  

Give you consolation when you are tired and discouraged? ______  

How often is your spouse considerate about your need for quiet when you are studying? ______  

Do something special for you when you are tired and discouraged? ________________  

Give you a back rub when you request it? ________________  

Has your spouse suggested a special social occasion to celebrate your success? (y-n) ________________  

Suggested you invite friends from school to your home? ________________  

During exams or when you have a lot of school-related work with a deadline:  

Does your spouse do some of the chores that you normally do? ________________  

Do you feel guilty about that? ________________  

How willing is your spouse about that? ________________  

During exams, when you are studying, does your spouse wait to talk to you until you take a break? ________________  

Entertain herself/himself so that you can study? ________________  

Not bring up other issues or problems until after your deadline? ________________
5. There can be conflicts when you are a married student between school-related activity and other commitments.

When you need to study in the evening, how often does that come first ahead of other things? On a scale of 1 to 5 where 5 is always and 1 is never. ___

What about weekends? How often does it get priority? ___

Do you and your spouse schedule social occasions around your student obligations? ___

Do you do things that are related to your spouse's occupation? (e.g. attend a convention with spouse? go to a party with the people your spouse works with?) ___

How willing are you about that? ___

Do you do things for relatives, either your family or your spouse's? ___

6. On average, how much time do you spend in a week in home management/household tasks? ___ hours

How about your spouse? How much time? ___ hours

7. I am going to read a list of things that need doing around the house. Could you tell me whether you or your spouse tend to do it.

<table>
<thead>
<tr>
<th>Task</th>
<th>Spouse Only</th>
<th>Mainly Spouse</th>
<th>50-50</th>
<th>Mainly Self</th>
<th>Self Only</th>
</tr>
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<tbody>
<tr>
<td>Meal preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kitchen cleanup</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Laundry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food shopping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House cleaning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paying bills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeping staples supplied in home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking care of the car</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Now I would like to know if there are other things that your spouse does to support you? How else does he/she help you?
9. Are there other things that conflict with school work than those we have mentioned?

10. During exams last semester, which of your regular obligations did you continue to do?

11. Is your spouse now in school? Yes
   No - go to 14

12. Are your school commitments equally important? Yes - go to 17
   No

13. What's the difference? (then go to 17)

14. Was your situation ever reversed - was there a time when your spouse was in school and you were not? Yes
   No - go to 17

15. In terms of support from your spouse, and time constraints, was it the same for your husband/wife then as it is for you now? Yes - go to 17
   No

16. What's the difference?

17. If you were single, would being in school be a very different experience? Yes
   No

   In what way?

   Age _________
   Years married ____________
   Spouse's occupation ____________________________
   Are you employed? ___________ Hours per week _________
   Year in school ____________
   Number of children __________
   GPA _________
Appendix C

Instructions to Judges

The purpose of this research project is to test some hypotheses about the effects of being married for a student in a professional program. Previous research indicates that support from a spouse is a benefit to a student, but the obligations that are part of the marital relationship can conflict with school-related demands.

Data will be gathered in this study by means of a telephone interview. The script for the interview is given in Figure 1. From the responses to these questions, I want to compute two scores: one for spouse support, and the other a measure of role conflict. Role conflict is the extent to which other obligations interfere with the student's ability to meet the requirements of the school program. I would like your help in constructing the two scores based on responses to interview questions.

Specifically, I would like you to decide which items in the questionnaire are related to each of the concepts: spouse support and role conflict, and then assign weights to the items to indicate their relative contribution. Please assume you have roughly 50 points total for each concept, and assign points in a way that reflects the importance of the items to one of the concepts.

Example

Suppose you decide that the two items: "Does your wife talk over school problems with you?" and "Has your spouse suggested a special social occasion to celebrate your success?" are both related to spouse support. You believe, however, that the first item is much more important than the second. That difference would be shown in the weights that you assign. You might decide, for example, that talking to one's spouse about school problems is so important that it deserves 20 points, while the latter item only merits one point.

The points that you assign to a question will be the maximum number of points that it will contribute to the total score. Most of the items will have answers in the range of 1 to 5, where 1 signifies never, and 5 signifies all of the time. But you do not need to be concerned with the answer range, since I will take care of ensuring uniform scaling.

I have attached a copy of the complete interview, but please ignore questions 8 to 17 because they are open-ended, and for the purpose of gathering subjective information.
Also attached is a copy of the interview labelled "for illustrative purposes only". This is an example of what I am asking you to provide. You may note that items are labelled as to which concept, if any they refer (spouse support, abbreviated SS; and role conflict, abbreviated RC) and a number is given that is the weight that will be assigned to the question. The points assigned to a construct do not add up to exactly 50 points. Before your ratings are added in with those of the other judges, they will be adjusted so that they are equivalent to the other ratings. I want to emphasize that the illustration is for the sole purpose of providing an example of a possible rating system. The actual numbers given were manufactured by me in less than 120 seconds, so please ignore them as soon as you understand what is expected.

Please feel free to contact me if you have any questions. My home phone is 355-1914.

I appreciate your willingness to assist me in this research project.
Appendix D
Coding systems Used in this Study

Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Educational Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ph.D., D.V.M. or D. Juris</td>
</tr>
<tr>
<td>2</td>
<td>A student currently enrolled in a program leading to a Ph.D., Doctor of Veterinary Medicine or Juris Doctor</td>
</tr>
<tr>
<td>3</td>
<td>M.A. or M.S.</td>
</tr>
<tr>
<td>4</td>
<td>B.A. or B.S. with some graduate school</td>
</tr>
<tr>
<td>5</td>
<td>B.A. or B.S.</td>
</tr>
<tr>
<td>6</td>
<td>Associates' degree, R.N., more than 2 years of college</td>
</tr>
<tr>
<td>7</td>
<td>Less than 2 years of college</td>
</tr>
<tr>
<td>8</td>
<td>High school diploma</td>
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Proportion of Home Management Done by the Student

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<tr>
<th>Code</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than one-third</td>
</tr>
<tr>
<td>2</td>
<td>One-third or more and less than half</td>
</tr>
<tr>
<td>3</td>
<td>Exactly half</td>
</tr>
<tr>
<td>4</td>
<td>More than half and less than 65%</td>
</tr>
<tr>
<td>5</td>
<td>Sixty-five percent or more</td>
</tr>
</tbody>
</table>

SES Code - Examples from the McGuire-White System

<table>
<thead>
<tr>
<th>Code</th>
<th>Professional</th>
<th>Business</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Lawyer</td>
<td>Top executive</td>
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<tr>
<td>2</td>
<td>High-school teacher</td>
<td>Assistant office manager</td>
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<tr>
<td>3</td>
<td>Registered Nurse</td>
<td>Salesman</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Stenographer</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Dime-store clerk</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Semi-skilled worker</td>
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</table>
Appendix E

Weightings of Questionnaire Items for Spouse Support (SS) and Role Conflict (RC)

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<tr>
<th>Weight</th>
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<td>0.0</td>
<td>1.4</td>
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</tbody>
</table>
VITA

Patricia Cawunder

Birthdate: April 14, 1943

Education

B.A. (Mathematics) - Trinity College, Washington, D.C. 1965
M.S. (Mathematics) - Northeastern University, Boston, Mass 1971

Presently enrolled - Louisiana State University - Since August, 1978

Professional Training and Experience

Psychology Fellow - LSU Mental Health Service. August 1980 - present

Externship - LSU School of Veterinary Medicine. May 1979 - present


Psychology Practicum - Baton Rouge Crisis Intervention Center. February 1979 - May 1980


Instructor, University of Guam, Continuing Education Program. January 1977 - May 1977


Management Consultant - Arthur D. Little, Inc. July 1965 - July 1975
EXAMINATION AND THESIS REPORT

Candidate: Patricia Cawunder

Major Field: Psychology

Title of Thesis: Differential Effects of Marriage Depending Upon Sex for Students in Professional Programs

Approved:

[Signature]
Major Professor and Chairman

[Signature]
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signature]

[Signature]

[Signature]

[Signature]

Date of Examination:

May 8, 1981