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This project is a continuation of the longitudinal study of sex-integration at the Air Force Academy. Extensive data files from male and female cadets have been developed and data is still being collected. A questionnaire was constructed which asked about problems of sex-integration, attitudes toward career, marriage family as well as issues concerning masculine and feminine roles.

An article was prepared and published in *Youth and Society*, Dec. 1978. It discussed ambiguities, sex-linked differences and changes in cadet beliefs concerning squadron life, attitudes toward sex roles and interactions during six months of integration. Females did not believe they were accepted and males expressed more traditional orientations toward women's roles which affected their interaction with female cadets.

The paper focused on career, marriage and family perceptions, and expectations. Data indicated that males preferred a traditional career, marriage and family, but about half were planning specifically for marriage and children and a limited Air Force career. Others wanted to wait before marrying and planned on having dual-career marriages with carefully timed

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Annual Technical Report

With the recent increase of women in the Air Force and the projected growth of career women officers, the subject of sex differences as they relate to job performance and selection, career motivation, and a variety of social-psychological areas is of great relevance to the Air Force. Although there has been a recent increase in research in some of these areas, there still is relatively little concerning women in military organizations. This project is part of an attempt to increase knowledge in these areas.

The principal focus is a longitudinal study of the sex-integration process at the U S Air Force Academy including a comparison of the careers of male and female cadets. The females in this study are cadets in the first integrated class who have been matched with a comparable group of males from the same class. This sample has received questionnaires at least once and sometimes twice a year. In addition several samples of males from other classes have been queried.

A wide range of measures are in use including standardized scales as well as some that have been developed specifically for a military setting. The topics covered include general career aspirations and expectations, military career choices, development of military orientations, sources of personal support, patterns of cadet associations, perceptions of the sex-integration process, attitudes toward women's roles and marriage and family orientations.

The assessment instruments are given on alternating questionnaire administrations in order to provide the broadest possible coverage of variables. In addition, a wide range of institutional information is being compiled on each cadet over the four year period. All of this information is incorporated into a master file. While major data analyses on this file will be carried out after the last administration, ongoing analyses of a number of current

issues have been completed. Much of the initial work on the project was done while the Principal Investigator was a visiting professor at the Air Force Academy. In this report, we will focus primarily on a number of specific aspects of the project that were completed during the first year of AFOSR support, 1978-1979.

Research objectives which were stated for the first grant period included the following:

1. Update the longitudinal master file to include the December 1977 questionnaire results and information from institutional records.
2. The initiation of descriptive and inferential statistical analyses using data from December 1977 questionnaire and some prior information.
3. A review of the women's integration literature in relation to topics in research project.
4. The development of computer programs in order to test changes over time in repeated measures on sample.
5. The preparation of reports for Air Force Office of Scientific Research and professional papers from ongoing data analyses.
6. Questionnaire construction for administration in December 1978 which will contain new scales as well as some items from prior questionnaires.
7. Questionnaire administration to matched sample of male and female cadets.
8. Update longitudinal data file to include information from January 1979 questionnaire and information from institutional records.
9. Preliminary statistical analyses of data from January 1979 questionnaire.

Substantial progress was made toward most of these objectives. This was accomplished both at WSU and at the Department of Behavioral Science at the Air Force Academy. During July 1978, the principal investigator, L. DeFleur, spent a month at the Academy and made several trips during the year to facilitate the collaborative effort.

The majority of stated objectives were completed during the specified period. For example, most of the updating of data files has been accomplished including the calculation of a number of scale scores. In addition, a number of descriptive statistics were run on data from both the December 1977 and January 1979 questionnaires. Some of the data were used in the preparation of professional papers as well as briefings to military and non-military groups.

Utilizing data from the December 1977 questionnaire, as well some background information, a paper and subsequent journal article were prepared. This article, "Cadet Beliefs, Attitudes and Interactions During the Early Phases of Sex Integration", was published in the *Youth and Society* journal in Dec. 1978. Reprints are attached. The preparation of this article also involved substantial scientific literature concerning the integration of minority groups, changing sex roles and military socialization. This review also was useful in the preparation of subsequent questionnaires.

During the Fall Semester, 1978, work was completed on the design of a questionnaire for December or January use. It was administered by the Department of Behavioral Science to the matched sample of males and females in January 1979. Some questions on this instrument probed perceived problem areas of sex-integration; others asked about cadet attitudes, perceptions and orientations concerning sex roles, and other items concerned plans for the integration of career, marriage and family.

Most of the data from the January 1979 questionnaire have been incorporated into the master file and some descriptive analyses have been completed. These results were used in the preparation of a professional paper which was presented at a Conference of the Inter-University Seminar on Armed Forces and Society in May 1979. This paper focused on the career, marriage and family orientations of future Air Force officers. It examined their future plans, and asked about current relationships with the opposite sex. These variables also were related to cadet attitudes concerning changing sex-roles. Additional data analyses are underway in order to expand and revise the paper for journal publication.

We are still in the process of adding institutional information on each cadet to the master file. In addition, we have yet to develop the computer programs that will be used in the analysis of change. This will be part of the current year's activities and it is anticipated that many other tasks will be comparable to past work.

During the past year, the principal investigator, (L. B. DeFleur) has made a number of presentations, based upon project data, to many different groups. For example, as discussed above, a paper reporting career, marriage and family orientations of cadets was presented at a Spring meeting of the Inter-University Seminar on Armed Forces and Society. This was held at the Naval Postgraduate School and provided an opportunity to share information with a number of interservice personnel as well as civilians.

More general talks on problems of sex-integration in military organizations have been given to several organizations. Professor DeFleur presented materials to Army ROTC classes at Washington State University and to the Faculty Social Science Colloquium. In addition, she talked to the Washington-Idaho Association of Faculty Women and the Intermountain division of the International Organization of Women Pilots.

Professor DeFleur also has consulted with personnel at the Air Force Academy. She presented briefings from project results to Lt. Gen. Tallman, Superintendent, as well as Brig. Gen. Richards, Commandant of Cadets, and Brig. Gen. Orth, Dean of the Faculty. In addition, during the July 1978 visit of Antonia Chayes, Assistant Secretary of the Air Force for Manpower and Personnel, a briefing was presented which outlined results from the present project as well as from several smaller studies.

The content of these presentations has varied depending on the interests and needs of the audience. Usually they include a brief background concerning the changing numbers and positions of women in the military and general problems

of the integration of minorities into organizations. Then some information is provided about the specific setting and background of the present project---sex-integration at the U S Air Force Academy. This leads into the presentation of project data. Some groups were interested in comparisons between men and women in terms of their characteristics, skills and orientations while others wanted to know more about attitudes, beliefs and interactions during the integration process. Of course, the Academy has been most interested in the military socialization of cadets, development of career orientations and similar topics. Thus, presentations utilized project information selectively depending on the interests of the specific audience.

During the period covered by this report, the main professional personnel associated with the project have been:

Dr. L. DeFleur - Principal Investigator - Washington State University

Capt. David Gillman - Collaborator - U S Air Force Academy

Capt. Dickie Harris - Collaborator - U S Air Force Academy

The publications resulting from the project and manuscripts in preparation include:

"Sex Integration of the U.S. Air Force Academy" *Armed Forces and Society*, Vol. 4, No. 4, (August) 1978 (with D. Gillman and W. Marshak), pp.607-622.

"Cadet Beliefs, Attitudes and Interactions During the Early Phases of Sex-Integration." *Youth and Society*, Vol. 10, No. 2, December, 1978 (with D. Gillman) pp. 165-191.

"Marriage, Family and Careers: Perceived Problems and Solutions Among Air Force Cadets." Inter-University Seminar on Armed Forces and Society, May 1979 (with D. Gillman and D. Harris). This will probably be submitted to The Journal of Marriage and Family.

Any additional details concerning specific project aims or results from data analyses are available from the principal investigator.

Career, Marriage and Family
Orientations of Future
Air Force Officers¹

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Presented at May, 1979, Meeting of Inter-University Seminar on Armed
Forces and Society.

In recent decades a number of social and cultural changes have been taking place in the American society which have significantly affected organizations as well as other societal institutions. These include expanding roles for women and emerging varieties of life styles. Obviously, these are closely interrelated and have implications for military and other work organizations.

The present paper focuses on changing roles for men and women in the military and problems in the integration of career, marriage and family for future officers. Specifically we will examine perceptions, plans and expectations of male and female Air Force Academy cadets. Data were obtained from third-year cadets but we plan to follow up these individuals at a later time in order to see how their career, marriage and family plans changed. In this paper first we will discuss the role of military families and some of the trends in changing family life styles. Second we will present some information provided by cadets concerning their expected life patterns. Then, we will outline some individual, as well as organizational, problems that may emerge as these officers work out their life styles.

Changing Family Life and the Military Family

Most social science and popular writing in the last ten or fifteen years has stressed the changing nature of family life related to a number of social and cultural changes. Gagnon and Greenblat have characterized these changes as a movement toward increased individual and situational flexibility in familial relationships. Norms of flexibility in life situations and the reversibility of individual choices have become dominant. This has meant that people no longer regard marital and family decisions as irreversible and the family participants as irreplaceable. This set the stage for the development and recognition of a wider variety of life designs such as living alone, single parenthood, and cohabitation. At the same time the importance of the extended family and the traditional nuclear family has diminished. For example, there are many more childless couples which are only "part" of

a family. And more people are living as "fragmented families" (i.e. widows, divorced people with children, etc.).

It is important to remember, however, that close to forty-five percent of the population still live in nuclear families. Thus, Gagnon and Greenblat and others are not pointing to the demise of the "American family" but rather indicating more variability and flexibility in family forms. This means that there will be small, but steady, increases in the numbers of people choosing alternate styles and that individuals are more likely to live in a variety of life-designs during different phases of their life. These changes, in turn, impinge upon other areas of social life -- particularly work.

Orientations concerning military family life have been rather contradictory. Dual emphases concerning males and sexual exploits in field situations as well as the importance and dedication to family units have been the themes. As Goldman points out, (1973 p. 145) these are rooted in traditional sex role definitions. However, these definitions have been changing as more females have been incorporated into the Armed Forces and general sex roles have changed.

For officers, however, the family has been regarded as a dominant force because it is seen as an integral part of military life and a supportive resource for male careers. The family also has been regarded as an important device in the adaptation to strains, and separations that often occur in military life. These orientations are still dominant and a supportive family is regarded as essential for officers to move into higher ranks. (Goldman 1973, p. 145).

How have women officers adapted to military family expectations? Not so long ago, military policy limited their life styles -- i.e. married female personnel had limited roles and if they became pregnant they were discharged. The preference was for single women who could devote their full attention to military demands. These policies have changed, but attitudes will be slower to change.

In a recent review of military family research (McCubbin, Dahl, and Hunter, 1976, p. 292), it was pointed out that the military has been slow to recognize the need for changing policies for people wanting different family and life designs. One of the aims of the present paper is to describe family plans and orientations of future officers in order to see what issues and problems may lie ahead for the Air Force. This is particularly cogent in terms of future female officers as they begin to plan their future service commitments. In the following section we will examine information from Air Force Academy cadets on these issues.

Career, Marriage and Family Orientations of Cadets

What do future officers expect for their family life and what, if any, problems do they perceive? We will focus on plans concerning the integration of career, marriage and family, and relate these to other attitudes and behavior patterns.

Data for this paper were obtained from questionnaires that have been administered to a matched sample of males and females in the first integrated class at the U.S. Air Force Academy. The original population of 153 female cadets were matched, on the basis of family military history and composite academic scores, to a sample of 195 males from the same class. They are part of a longitudinal study that is tracing the progress of sex-integration at the Air Force Academy over a four-year period. Cadets have completed questionnaires at least once a year for the last three years. During this time some cadets have left the Academy and the sample size has become smaller. In the most recent administration of questionnaires, we obtained information from 96 male cadets and 90 females.

Most of the information we will be reporting in this paper was obtained in February, 1972. Items reporting career, marriage, and family plans, expectations and perceptions have been analyzed and these variables related to several measures from prior questionnaires. The measures include scales concerning attitudes toward changing women's roles, as well as attitudes toward women at the Air Force Academy

and women in military leadership and combat roles. (Spence et al., 1973; DeFleur et al., 1977). Data reported in this paper are preliminary and are of a descriptive nature since we have not had time to carry out more complex analyses. First, we will describe intended marriage and family plans of cadets. Then we will relate these to their attitudes concerning sex roles and future career expectations. From this we will outline several apparent preferred life styles.

Marriage and Career Plans

Virtually all cadets indicated they planned on marrying (see Table 1). However, when we examined the responses, we found that a few more women were slightly unsure about this. There were no differences in when males and females said they expected to marry. On the average, they indicated this would be two to six years after Academy graduation. When asked if they felt family would always come before their career, both males and females responded affirmatively and two-thirds agreed strongly or somewhat with the statement (Table 1). At the same time, there weren't any sex differences in the level of agreement about the importance of preparing for a career. We asked whether they would pursue a full-time career even if they or their spouse had enough money to live comfortably without working and again differences between sexes were not significant (see Table 1). However, responses indicated that males were somewhat more certain than females that they would always have a career.

Thus, we find that both male and female cadets subscribed strongly to marriage as well as careers. This is not particularly surprising although such responses need to be carefully interpreted. Studies have shown that, given gender socialization and training in our society, most college males do not find it difficult to prepare for careers and realistically assume they will have marriage and family life. (Komarovsky, 1973). However, the salience of careers for women has been less since they recognized the problems of trying to combine work and family given current work and family patterns.

In such situations, young women often express a preference for a life style rather than indicating a choice between career and family. They also espouse a contingency approach for their futures. That is, they tend to approach marriage, family and career as flexible, adaptive, and accommodative phases in their life rather than patterns of continuous development in an all or nothing situation. (Angrist and Almquist, 1975). From the present data it is difficult to probe specifically such orientations but other questionnaire items provided some insights.

Family Orientations

What are cadet attitudes concerning children? Again, we found no sex differences. Over three-quarters of male and female cadets indicated they definitely or probably plan on having children (Table 1). While both males and females agreed that having a family is important, they also indicated that they needed work apart from their family in order to have fulfillment. When asked the extent to which they thought being a parent would interrupt the development of their career, there were strong sex differences with females saying yes and males disagreeing with the statement (Table 1).

Males and females also differed in their preferred child-care arrangements. Responses to questions concerning whether parents should be in the home when children are young, and the types of child-care arrangements they would prefer, provided evidence of this (Table 1). Males strongly subscribed to the statement that parents should be in the home when children are young. Females mostly agreed but not as strongly. In terms of child-care, most male cadets indicated they preferred it in the home while females were more willing to use outside help and agencies such as school and child-care centers.

Thus, we find that most male cadets have indicated a preference for a rather traditional life style -- marriage, children, someone in the home caring for children and no disruptions in their own careers. This is consistent with their responses

to a question concerning their preferred life style in fifteen years -- only a fifth indicated a possibility of dual careers and a family or other variations (see Table 1). We would assume, then, that they will seek mates to fit into traditional military family life styles.

On the other hand, female cadets subscribed to marriage and family goals but a significant proportion also wanted careers. This was clear in terms of their preferred life style in fifteen years. Over half indicated they thought they would be in dual career families and only a small proportion thought they would be married without careers (Table 1). These results are similar to studies of other college-age women who express strong desires to assume wife and mother roles while simultaneously pursuing careers. However, most are uncertain how they will work out these conflicting demands. In general, young women express much faith in the help and support of future mates (Gump, 1972). One might speculate, however, that it will be more difficult for female cadets to solve these problems given some of the demands of military careers and possible involvement with male cadets. This is clearly illustrated in responses to another question.

Cadets were presented with a hypothetical situation where they were considering marriage to a person who also had a career and they were asked how to resolve conflicting demands in such a situation. Male and female responses were significantly different (Table 1). The majority of males indicated they would marry but let one career be dominant for the time being. While a number of female cadets also agreed to the temporary career dominance situation, many more indicated they would be willing to have both individuals pursue their careers, whatever the sacrifice, even if it meant living apart.

Attitudes Toward Women's Roles

As we have seen in a number of questionnaire items, there are rather consistent male and female differences. Throughout the longitudinal study we have been monitoring other differences between the sexes, particularly in terms of attitudes

toward sex roles. We have queried cadets several times concerning attitudes toward women's roles and women in the military. A short form (25 items) of the Spence-Helmreich Attitudes Toward Women Scale was administered. This scale (AWS) contains items concerning various rights and roles of women in areas such as work, education and sexual activity. Scores range from 0 to 75 with higher scores representing more favorable orientations toward changing roles. The results have indicated two trends. There are strong male and female differences with male cadets expressing much less positive attitudes toward changing roles. Also, we found that male and female attitudes have not changed significantly since arriving at the Academy.² These differences should be kept in mind as we examine relationships between AWS scores and cadet marriage and family orientations.

We also have two measures of cadet attitudes toward women in military roles. Through prior factor analyses we obtained two short scales -- Attitudes Toward the Integration of Females into the USAFA and Women in Combat and Military Leadership Roles. (DeFleur et. al., 1978). Scores on these two factors were also related to cadet marriage and family orientations.

Scores on the attitudes scales were related to cadet perceptions of their life in fifteen years, desired child-care arrangements and preferred solutions to marriage and career conflicts. Few significant relationships emerged and these were in the predicted direction. That is, more traditional attitudes toward sex roles also meant more traditional preferences in future life styles. For example, among female cadets we found a relationship between scores on the Attitudes Toward Women Scale and their preferred life style in fifteen years. (see Table 2). Similarly, males who were less enthusiastic concerning changing women's roles, preferred traditional child-care arrangements within the home. (Table 2). Preferences for such child-care arrangements also were related to less enthusiastic attitudes concerning women at the Air Force Academy.

Attitudes toward women in military and combat leadership roles were related to other variables for female cadets. This is not surprising since these issues are relevant to their futures. For example, results indicated that females who were enthusiastic concerning women in military leadership and combat roles also said they were more willing to make sacrifices in potential marriage and career conflicts. (Table 2).

Female cadet attitudes toward women in changing civilian and military roles also were related to future career plans. That is, young women who expected to enter traditional male fields such as pilot and navigator were much more enthusiastic about women in military leadership roles and changing societal roles. In addition, young women who expected to attain ranks of major or higher, were more positive toward women in leadership and combat roles. In contrast, those with less enthusiastic attitudes tended to expect to enter more traditional career fields such as medical, personnel, and finance, and many indicated they probably would not attain ranks above captain. Thus, even though in general, female cadets tended to be positive concerning changing military roles for women and changing societal roles, there were differences among these young women.

Relationships With the Opposite Sex

Another variable we explored was the nature of current cadet relationships with the opposite sex. We wanted to see whether the nature of current involvements would affect future plans and perceived problems. On a questionnaire item asking about this, we tried to assess whether cadets were involved in more casual relationships such as dating different people, going with one person, but not exclusively, or whether they were more extensively involved -- that is, going exclusively with one person, engaged or had a definite future commitment. Comparisons between male and female cadets were very interesting. Approximately 80 percent of male cadets indicated that they were simply dating different people. A small number

said they were engaged or had a definite commitment. Among female cadets there were slightly fewer than half with a low level of involvement, while the remainder indicated more serious involvements. In fact, over 22 percent of female cadets said they were engaged or had a definite commitment. ($\chi^2=18.54$, $p=.0001$).

Who are cadets involved with? Again we found differences between males and females. ($\chi^2=124.96$, $p=.000$). The majority (85 percent) of the female cadets indicated they were involved with cadets and other military personnel, while males said they were involved with local civilians or those from outside the immediate area. A very small number said they were involved with female cadets. Given the sex ratio at the Academy these patterns are not surprising, yet it is interesting, given clear-cut attitude differences, that female cadets are so extensively involved with male cadets. These involvements could lead to areas of conflict in future relationships in fact it seems likely given the differences in marriage and family orientations.

In order to explore the possible impact of current relationships, we classified cadets into low and high attachment levels and calculated a series of Chi-squares. Table 3 contains a summary of these analyses. As can be seen, very few were significant at the .05 level. This indicates that present relationships with the opposite sex did not seem to make a difference in preferred life styles, child-care arrangements or solutions to marriage and career conflicts. This may indicate that cadets have not yet begun to think seriously about potential problems in these areas.

It is interesting to note that the two relationships with less than .05 significance were for females and their future career plans (see Table 3). Female cadets with less involvement more often expected to enter non-traditional career fields and expected to attain a higher rank in their careers. The opposite was true for female cadets who had already formed strong attachments to the opposite sex. Similarly, when we asked male and female cadets to estimate when they would marry and have children, we found a strong relationship with the level of current

involvement with the opposite sex (χ^2 probabilities were .01 or less). Those who said they had definite commitments also indicated they expected to marry and have children sooner (χ^2 probabilities were .03 or less). In the next section, we will synthesize these findings and describe the expected life patterns of male and female cadets.

Work and Family Patterns

From the data we have examined several future patterns of combining family and career emerge. Virtually all cadets, at this point in time, want careers, marriage and children but it's clear that these may be integrated in different ways for males and females. In the following paragraphs we will describe these preferred work and family styles.

At present, most male cadets prefer a rather traditional career, marriage and family adaptation. They expect to marry, have children and have continuous career development. They also seem to prefer combining these in ways that involve rather clear-cut and separate tasks for each sex. Their attitudes indicate that they view female roles as both supportive and subordinate to male roles. This is not surprising given the kind of young men who are attracted to the Air Force Academy and the family orientations that tend to be reinforced at the Academy.

Among female cadets there appear to be two different patterns. Generally, all females subscribed to the notion that they would like to marry and have children but close to half seemed to be planning more specifically for marriage and children. Many of these indicated they planned to marry and begin their family within a relatively short period after initiation of their Air Force career. These were the same young women who said they expected more traditional female careers within the Air Force and their rank expectations were concentrated in the ranks of captain and below. They also tended to prefer more traditional child-care arrangements and

visualized their future life as involving clear commitments to marriage and family roles. These cadets may end up in a rather typical situation where work and home roles are alternated in different phases of their life (Fogarty et al., p. 108). Frequently, young women devote their early adult years to training, education, and establishing careers. This is followed by a few years where they drop out in order to bear and raise children. Increasingly, women are then returning to work. While our data do not provide specific information concerning these phases, it appears that a number of these young women are headed in this direction.

Another segment of female cadets seem to be expecting more of a continuous career pattern with marriage and minimum interruption for child bearing. For example, these said they thought they would be in dual career families and that they would be more willing to sacrifice, even to the point of living apart, in the case of marriage and career conflicts. They want children but, at the same time, indicated more willingness to turn to outside agencies for child-care help.

At the present time, these young women have lesser attachments to members of the opposite sex. Many expect to attain a rank of major or above in their Air Force careers and are headed toward less traditional female career fields within the Air Force, e.g. pilot, navigator. Thus, it's not surprising that these young women were less traditional than other females in their attitudes toward women's roles and women in military roles.

Will these young women actually be able to move ahead with their careers and at the same time integrate marriage and child-bearing? It is not easy. A number of writers have pointed out that women often end up with an overload of responsibilities and a great deal of stress concerning conflicting and competing demands (Coser and Rokoff, 1971). We will discuss some of these in the last section of the paper.

Even though young people prefer certain patterns of roles and may begin with these, they often change as circumstances change throughout their life cycle. While

we used future plans and expectations to obtain a picture of cadet adaptations, many may not actually end up in such patterns. However, these configurations may be used as a starting point for understanding personal as well as professional dilemmas and problems that lie ahead for male and female officers.

There are a number of theoretical and practical questions in this investigation that need further exploration. It is beyond the scope of the present discussion but we intend to continue our analyses. We will examine the possible antecedents of different work and family patterns and try to understand the role of background factors, past family experiences and other socio-demographic factors in choosing certain life styles. At the same time, it is necessary to consider Academy experiences and current situational factors that may have an impact on cadet preferences. Only through continued analyses will we be able to obtain a more general perspective concerning the development of different life expectations and plans.

Individual and Organizational Problems and Issues

In this section we will discuss a number of possible problems and issues in terms of both individuals and military organizations and adaptations to different life styles. Changing family and sex role norms have resulted in more discussions concerning strains and problems associated with a number of these changes. We will outline a few that are particularly relevant to the situation under study, beginning with a discussion of individual strains that many of the cadets may experience.

Individual Strains

Male cadets preferred more traditional male roles but these are not without stress (Pleck, 1975). For example, males in traditional work and family roles typically have strong feelings of responsibility for wives and family and worry about whether they will be good providers. Pressures for achievement also have been linked to male roles creating stress for males to compete for education and work. (Rapoport and Rapoport, 1977). Male cadets may experience these strains as they begin to enter

adult roles.

The life patterns females prefer will lead to a number of different problems. Young women trying to alternate family and work may experience several types of pressure. Educated women in family roles often feel "trapped" -- isolated from stimulating situations. Resentment builds and frequently results in family problems. (Rapoport and Rapoport, 1977). However, different pressures build when they consider re-entering work -- ambivalence and indecision. Typically spouses have mixed feelings about such changes and this creates additional dilemmas. Support systems often are needed in women's transition from work to family and family to work roles.

Female cadets who indicated a preference for a continuous career pattern could experience strains either as a single career woman or as a member of a dual career family. Since most female cadets were quite strongly committed to marriage, a high proportion apparently are heading toward dual careers and, in this case, probably other military personnel.

Females in dual career families report internal as well as external stress. (Holmstrom, 1972). These develop because women find it difficult to reconcile their concepts of home and family with career pressures. Often they feel inadequate in one or both areas. Women also report that it is very difficult to create feelings of equity for both partners where there are competing careers. (Rapoport and Rapoport, 1977). In addition, women report feelings of frustration in their work because they don't think they are taken seriously. Williams found that Air Force women in dual career families expressed this concern. (Williams, 1979). The same study also pointed out that they had anxiety concerning the effects of their career on their spouse's future given their inability to carry out many traditional obligations of military wives. Such strains are not easily alleviated.

Males in dual career families also tend to express ambiguities and strain. They often find it difficult to adopt egalitarian practices in the home and often have problems committing themselves to career advancement for their wives. (Rapoport and Rapoport, 1977). Yet, these orientations are vital in dual career families.

For example, a study of women in sex-atypical careers found that the most important variable contributing to women's success was the orientation of spouse. In families where males were actively supportive and involved in family duties, women tended to remain in their careers longer and greater marital happiness was reported. (Bielby, 1970; Rapoport and Rapoport, 1976). Dual career families appear to need strong consensus between mates and a willingness to redefine traditional problems and strains in order to attain integration of work and family life. It is essential that military organizations recognize these strains and try to provide adequate counseling and other facilities in order to meet the needs of increasing numbers of dual career families.

Military and Family Issues

Military organizations increasingly are concerned about various family and life styles since recruitment of personnel, retention rates and organizational efficiency are all affected. As Williams has indicated, "Military planners in all service branches are becoming concerned about the effects of dual-career couples, single parent families and other alternative family styles upon the operational mission." (Williams, 1979). These concerns have led to some policy changes as well as the development of a number of family-oriented human relations and community services. However, family and work policies are complicated by more general issues concerning the utilization of women and women in combat. These will have to be taken into account as the military considers problems of work and family.

What are some of the issues? Clearly, a variety of military policies need to be examined specifically in terms of how they impinge upon different work and family styles. In addition, there should be greater recognition of various life styles and models provided at the Academy and other places. Also, more supporting services, for individuals and families, need to be developed to aid military personnel with their problems. In the following paragraphs we will briefly discuss some of these concerns.

In the military, as well as other social institutions, central issues in work and family policies are flexibility and increased options. In particular, researchers who have examined dual-career families and problems of women have emphasized these needs. (Holmstrom, 1972; Rapoport and Rapoport, 1976). Suggestions for meeting such goals have included flexible work schedules, more variation in the structuring of careers and jobs and greater utilization of part-time work. Along these same lines, the military needs to go beyond the consideration of field placements and geographical assignments and consider possibilities for different patterns of work. For example, are frequent changes in assignments essential for most personnel? How many remote tours are needed or could these assignments be handled differently? Are there additional options for career patterns?

A consideration would be to allow for more interruption in military careers. At the present time, policies provide for maternity leaves but perhaps longer child-rearing leaves and part-time work should be considered since our data indicated that close to half of the female cadets were committed to families and limited career service. The training investment in these future officers is considerable and it would be desirable to develop provisions that would retain their utilization for as long as possible. The military should actively consider various policies that would provide alternate periods of work and family so officers could be on a standby or part-time basis for a few years without losing seniority and other benefits. Such actions would facilitate family and work integration. Such policies also would probably necessitate additional child-care facilities since typically this is an area of great concern to dual career families. (Rapoport and Rapoport, 1976).

Reconsideration of the need and endorsement of a specific family pattern in the military is essential. For example, how important is it to the career of an officer to have a person occupying the hostess role? Perhaps it isn't as central as imagined. A recent study of dual careers found that some of the most successful males had only minimal amounts of family social support. (Holmstrom, 1972). This was true even in

organizations where there was strong verbal allegiance to such requirements. In fact, most of the men and their families reported that career support could be cut drastically without hurting career advancement and that when social activities were needed, these could be facilitated through outside help. The questioning of assumptions and development of greater tolerance and legitimation of a variety of life styles will benefit military organizations as well as their members. At the present time, military men and women who do not conform to traditional family models often experience discomfort and even informal sanctions. Undoubtedly, their contributions are affected by these situations.

Finally, a variety of educational and counseling programs are needed to help individuals and families handle stress and problems. For example, at the Academy, there should be more discussions for cadets concerning different life styles and their problems. There are some available but they are limited in scope.

In general, military policies and orientations need to be reexamined with an eye to implications for the integration of work and family. As this research and others are finding, more people are opting for alternative life styles. With these changes, the military also will have to make changes in order to recruit and maintain personnel.

Table 1. Attitudes of Male and Female
Cadets Toward Careers, Marriage and Family

Item	χ^2	P
At this time, I am not sure whether I will ever marry or not.	4.18	.38
My family will always come before my career.	.86	.93
It is important to me to be able to prepare for a career that will allow me to use my special abilities.	4.90	.18
If by some chance you (or if married, you and your spouse) were to get enough money to live comfortably without working, do you think that you would pursue a full-time career anyway?	8.94	.06
In thinking about the future, do you think that you will have children?	3.66	.45
Being a parent is important to me, but I must have some area of work apart from my family in which I can find personal fulfillment.	2.82	.59
I anticipate that being a parent will interrupt the development of my career.	28.68	.000
It is essential that one parent be in the home while a child is very young (under six).	16.54	.002
Assume you are married, have children and both you and your spouse have full-time careers, what kinds of child care arrangements do you think you would prefer?	15.62	.003
Try to imagine your life as you would like it to be fifteen years from now. How do you think you would combine career, marriage and family?	50.63	.000
Assume you are considering marriage to a person who also has a career and some problems have arisen over how to manage marriage and both careers. How would you resolve these?	10.31	.03

Table 2. Relationships Between Attitudes Toward Women's Roles and Career, Marriage and Family Expectations

Sex and Variables	χ^2	P
<u>Male Cadets</u>		
Preferred life style in fifteen years and attitudes toward women in military roles	8.318	.08
Preferred child care arrangements and attitudes toward changing women's roles	14.556	.06
Preferred child care arrangements and attitudes toward women at USAFA	16.369	.002
Expected USAF rank attainment and attitudes toward women at USAFA	9.007	.01
<u>Female Cadets</u>		
Preferred life style in fifteen years and attitudes toward changing women's roles	34.229	.000
Preferred child care arrangements and attitudes toward women at USAFA	8.473	.07
Solutions to marriage and career conflicts and attitudes toward women in military roles	12.361	.01
Expected USAF rank attainment and attitudes toward women in military roles	8.094	.01
Expected USAF career field and attitudes toward women in military roles	6.258	.04
Expected USAF career field and attitudes toward changing women's roles	10.145	.03

Table 3. Type of Current Attachments With
Opposite Sex and Career, Marriage and Family Expectations

Variables	Males		Females	
	χ^2	p	χ^2	p
Attachments with opposite sex and preferred life style in fifteen years	6.204	.18	7.077	.21
Attachments with opposite sex and preferred child care arrangements	4.944	.29	1.505	.82
Attachments with opposite sex and expected USAF career field	0.072	.96	7.796	.020*
Attachments with opposite sex and expected USAF rank attainment	1.574	.45	7.693	.021*
Attachments with opposite sex and solutions to marriage and career conflicts	5.012	.28	3.825	.43

* significance greater than .05

Footnotes

1. This research is supported by AFOSR grant 78-3627. However, the opinions expressed by the authors are not those of the Department of Defense, U.S. Air Force or U.S. Air Force Academy.
2. A recent study of male and female students in four different fields (management, law, education and social work) also used the AWS scale (Wertheim, et al., 1978) and can be used for comparisons. When we compared the mean scores of male and female cadets to these civilians we found that, in general, male cadet scores were significantly more traditional than their male counterparts and that female cadet scores tended to be the same as other students. For example, a comparison of overall civilian male mean with the male cadet mean yielded a t of 4.02, with $p=0.01$ whereas the civilian female mean compared to the female cadets mean resulted in a t of 1.385, and $p=.20$ (these are two-tailed tests).

References

- Angrist, Shirley S. and Elizabeth M. Almquist
Careers and Contingencies: How College Women Juggle with Gender. New York, Dunellen Publishing Co., 1975.
- Bartol, Kathryn M. and D. Anthony Butterfield
"Sex Effects in Evaluating Leaders." Journal of Applied Psychology, Vol. 61, No. 4, (1976) 446-451.
- Bayer, Alan
"Sexist Students in American Colleges: A Descriptive Note," Journal of Marriage and the Family. Vol. 37, No. 2, May 1975. p. 391-397.
- Bielby, Denise Del Vento
"Career Sex-Atypicality and Career Involvement of College Educated Women: Baseline Evidence From the 1960's." Sociology of Education, Vol. 51, (January), 1978. 7-28
- Binkin, Martin and Shirley Bach
Women and the Military. Washington, D.C., The Brookings Institution.
- Eose, Christine E.
Jobs and Gender: Sex and Occupational Prestige. Baltimore: John Hopkins University Center for Metropolitan Planning and Research. 1973.
- Coser, Rose Laub and Gerald Rokoff
"Women In the Occupational World: Social Disruption and Conflict." Social Problems Vol. 18, No. 4, 1971. 535-554
- DeFleur, Lois B., David Gillman, and William Marshak
"Sex Integration of the U.S. Air Force Academy" Armed Forces and Society, Vol. 4, No. 4. August 1978. 607-622
- Epstein, Cynthia Fuchs
"Women and the Professions." in The Other Half: Cynthia Fuchs Epstein and William J. Goode (eds.) Englewood Cliffs, N.J.: Prentice Hall., 1971
- Eskilson, Arlene and Mary Glenn Wiley
"Sex Composition and Leadership in Small Groups." Sociometry. Vol. 39, No. 3, (1976). 183-194.
- Fogarty, M., R. Rapoport and R. Rapoport
Sex, Career and Family. London, George Allen and Unwin LTD, 1971
- Gagnon, John and Cathy Greenblat
Life Designs. Glenview, Ill. Scott, Foresman and Co. 1978.
- Goldman, Nancy
"The Changing Role of Women in the Armed Forces" in Joan Huber ed., Changing Women in a Changing Society. (Chicago: University of Chicago Press, 1973), pp. 144-147.

- Gump, Janice Porter
 "Sex Role Attitudes and Psychological Well-Being," *Journal of Social Issues*.
 Vol. 28, No. 2, 1972. pp. 79-92.
- Holmstrom, Lynda L.
The Two Career Family. Cambridge, Mass. Schenkman Publishing Co., 1972.
- Hudis, Paula M.
 "Commitment to Work and to Family: Marital Status Differences in Women's Earning." *Journal of Marriage and the Family*. Vol. 38, No. 2, 1976. 267-278.
- Jacobson, Marsha B. and Joan Effertz
 "Sex Roles and Leadership: Perceptions of the Leaders and the Led." *Organizational Behavior and Human Performance* 12, (1974) 333-396.
- Komarovsky, Mirra
 "Cultural Contradictions and Sex Roles: The Masculine Case," *American Journal of Sociology*, Vol. 78, No. 4, January 1973, pp. 111-122.
- McCusbin, H., B. Dahl and E. Hunter (eds.)
Families in the Military System, Beverly Hills California, Sage Publications, 1976.
- Michel, Andree
Family Issues of Employed Women in Europe and America. The Netherlands, E.J. Brill, 1971.
- Pleck, J.
 "Masculinity-Femininity: Current and Alternative Paradigms," *Sex Roles*, Vol. 1, No. 2, June 1975.
- Poloma, Margaret and T. Neal Garland
 "Jobs or Careers: The Case of the Professionally Employed Married Woman" in Andree, Michael, *Family Issues of Employed Women in Europe and America*, The Netherlands, E.J. Brill, 1971. 126-143
- Rapoport, Rhona and Robert Rapoport
Dual-Career Families Re-examined. London, Harper Colophon Books. 1976.
- Rizzo, John R., Robert J. House and Sidney I. Lirtzman
 "Role Conflict and Ambiguity in Complex Organizations." *Administrative Science Quarterly*. Vol. 15, No. 2, June 1970. 150-164.
- Spence, Janet T., et. al.,
 "A Short Version of the Attitudes Toward Women Scale," *Psychonomic Society Bulletin* 2(1973): 219-220.
- Spence, Janet T., and Robert L. Helmreich
 "A Comparison of Masculine and Feminine Personality Attributes and Sex-Role Attitudes Across Age Groups," *Developmental Psychology*, Forthcoming.

Wolfe, Linda J., and Ross M. Stolzenberg

"Intended Childbearing and Labor Force Participation of Young Women: Insights from Nonrecursive Models," American Sociological Review, Vol. 41 (April) 1976. 235-252.

Wertheim, Edward, Cathy Widon and Lawrence Wortzel

"Multivariate Analysis of Male and Female Professional Career Choice Correlates," Journal of Applied Psychology 63(2) 1978. 234-242.

Williams, John W., Jr.

"Dual-Career Military Families," in Edna J. Hunter and D. Nice (eds.) Military Families: Adaptation to Change, New York: Praeger, Forthcoming.