

DTIC FILE COPY

①

TRI Research Note 90-124

AD-A226 885

Army Spouse Employment Literature Review

Research Triangle Institute

DTIC
ELECTE
SEP 26 1990

for

Contracting Officer's Representative
D. Bruce Bell

Personnel Utilization Technical Area
Paul A. Gade, Chief

Manpower and Personnel Research Laboratory
Zita M. Simutis, Director

September 1990



United States Army
Research Institute for the Behavioral and Social Sciences

Approved for public release; distribution is unlimited

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

A Field Operating Agency Under the Jurisdiction
of the Deputy Chief of Staff for Personnel

EDGAR M. JOHNSON
Technical Director

JON W. BLADES
COL, IN
Commanding

Research accomplished under contract for
the Department of the Army

Research Triangle Institute

Technical review by

Arthur C. F. Gilbert

Accession For	
NTIS CRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	



NOTICES

DISTRIBUTION: This report has been cleared for release to the Defense Technical Information Center (DTIC) to comply with regulatory requirements. It has been given no primary distribution other than to DTIC and will be available only through DTIC or the National Technical Information Service (NTIS).

FINAL DISPOSITION: This report may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: The views, opinions, and findings in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other authorized documents.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS --		
2a. SECURITY CLASSIFICATION AUTHORITY --			3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE --					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) --			5. MONITORING ORGANIZATION REPORT NUMBER(S) ARI Research Note 90-124		
6a. NAME OF PERFORMING ORGANIZATION Research Triangle Institute		6b. OFFICE SYMBOL (If applicable) --		7a. NAME OF MONITORING ORGANIZATION U.S. Army Research Institute for the Behavioral and Social Sciences	
6c. ADDRESS (City, State, and ZIP Code) P.O. Box 12194 Research Triangle Park, NC 27709				7b. ADDRESS (City, State, and ZIP Code) 5001 Eisenhower Avenue Alexandria, VA 22333-5600	
8a. NAME OF FUNDING / SPONSORING ORGANIZATION U.S. Army Research Institute for the Behavioral and Social Sciences		8b. OFFICE SYMBOL (If applicable) PERI-R		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER MDA903-87-C-0540	
8c. ADDRESS (City, State, and ZIP Code) 5001 Eisenhower Avenue Alexandria, VA 22333-5600		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO. 63731A	PROJECT NO. 792	TASK NO. (2302) 242	WORK UNIT ACCESSION NO. C2
11. TITLE (Include Security Classification) Army Spouse Employment Literature Review					
12. PERSONAL AUTHOR(S) Research Triangle Institute					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 86/11 TO 87/06		14. DATE OF REPORT (Year, Month, Day) 1990 September	
				15. PAGE COUNT 57	
16. SUPPLEMENTARY NOTATION Contracting Officer's Representative: D. Bruce Bell					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Family adaptation Retention Leadership		
			Spouse employment Readiness Enlisted retention		
			Community support Reenlistment Officer retention (CR)		
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
The Army Family Research Program (AFRP) is a five-year integrated research program which supports the Chief of Staff of the Army (CSA) White Paper 1983: The Army Family and The Army Family Action Plans (1984 - 1990) through the development of databases, models, program evaluation technologies, and policy options that assist the Army to retain quality soldiers, improve soldier and unit readiness, and increase family adaptation to Army life. This report provides an integrated review of the available literature on spouse employment. Specifically, it covers the effects of aspects of Army life on spouse employment, and the relationship of spouse employment to key family and military outcomes. The literature is reviewed from several disciplines including economics, sociology, and psychology.					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL D. Bruce Bell			22b. TELEPHONE (Include Area Code) (202) 274-8119		22c. OFFICE SYMBOL PERI-RP

ARMY SPOUSE EMPLOYMENT LITERATURE REVIEW

CONTENTS

Introduction	1
Overview	1
Spouse Employment in Relation to Readiness and Retention	1
Spouse Employment as an Issue	3
Approach	4
Factors Affecting Spouse Employment Decisions and Employment Outcomes	5
Introduction	5
A Description of Army Spouses	5
Problems of Unemployment and Underemployment Experienced by Army Spouses	8
A Description of the Employment of Civilian Wives	8
Examination of Why Women Work	9
Family Factors	11
Childbearing and Family Life Course Factors	13
Economic Factors	14
Employment and Assistance Programs	23
The Impact of Technology on Spouse Employment	33
The Effects of Spouse Employment	35
Introduction	35
The Effects of Employment on Married Women's Psychological Well-Being	35
The Effects of Dual-Employment on Marriage	36
The Effects of Spouse Employment on the Distribution of Power	37
The Effects of Employment on the Marital Relationships	37
The Effects of Maternal Employment on Children	37
The Effects of Wives' Employment on Their Husbands' Careers	40
The Effects of Spouse Employment on Retention	41
An Economic Theory of the Spouse's Influence on Retention	42

LIST OF TABLES

Table 1. Household Composition of Army Enlisted Personnel and Officers by Sex	7
--	---

LIST OF FIGURES

Figure 1. Conceptual Framework for the ARI Family Research Program . . .	2
Figure 2. Spouse Employment Model	6
Figure 3. Employment Process Model	25

ARMY SPOUSE EMPLOYMENT LITERATURE REVIEW

Introduction

Overview

The Army Family Research Program is a long-range program of integrated research activities designed to answer key policy questions about Army families and the Army mission. The research is designed to address the major research issues in The Army Family Action Plan I (Office of the Deputy Chief of Staff for Personnel, U.S. Army, 1984) and assist Army policy and program personnel in designing future policies and programs that both strengthen families and contribute to retention and readiness. Major topics of research include: building family strength/wellness enhancing spouse employment; family impacts on retention and career decisions; and family impacts on readiness.

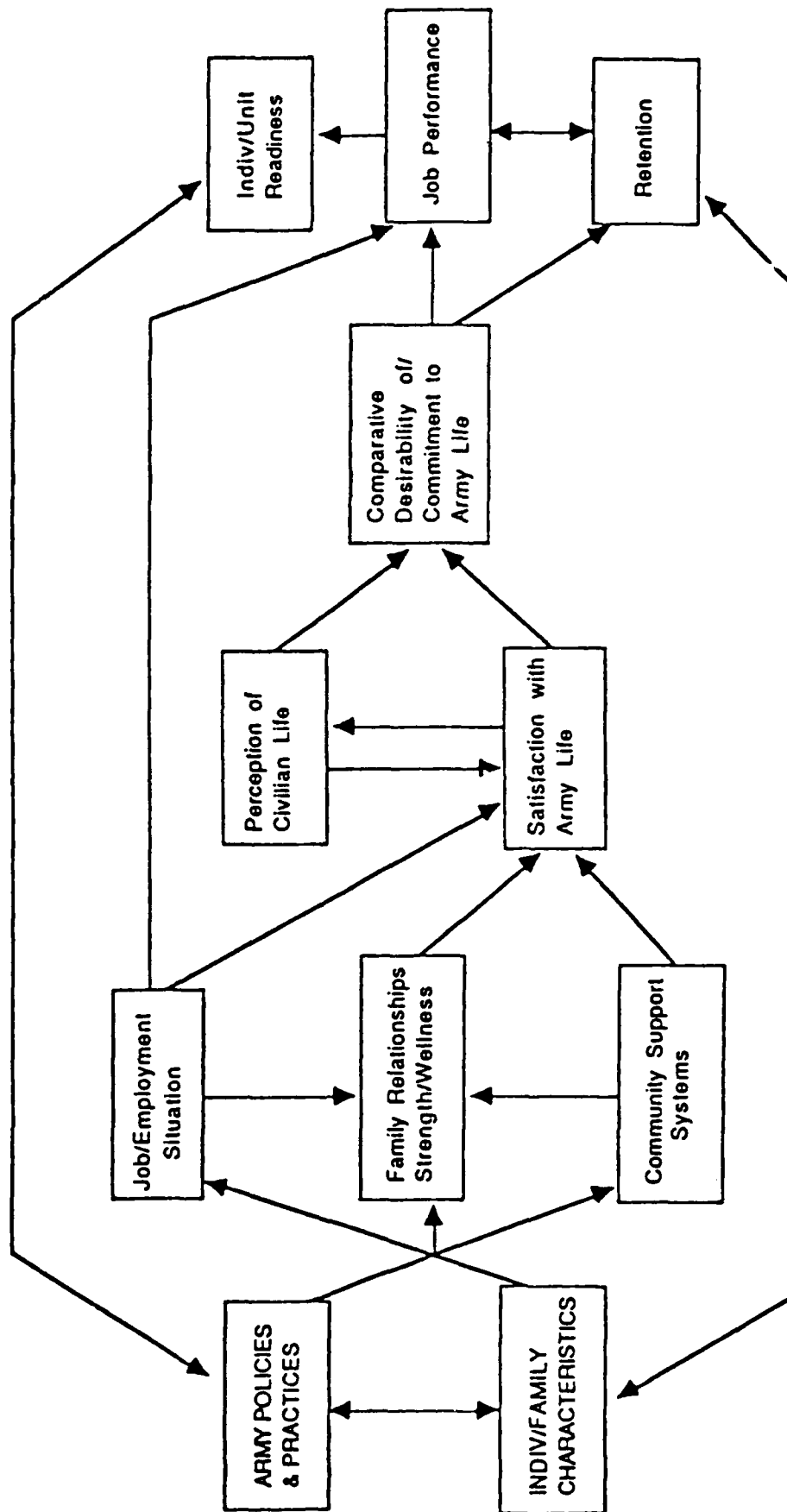
The focus of this review is on spouse employment. Specifically, it will review, first, the effects of aspects of Army life on spouse employment, and second, the relationship of spouse employment to key family and military outcomes. In addition, the Army has undertaken important policy and program initiatives to mitigate the employment problems of Army spouses, underlining the importance of enhancing spouse employment. The next two sections contain more detailed discussions of these two points.

Spouse Employment in Relation to Readiness and Retention

To increase the understanding of the relationships between spouse employment and readiness and retention, we propose use of the conceptual model depicted in Figure 1. This model is an elaboration of the conceptual framework derived from the ARI-sponsored family retention panel of 1985. Based on a review of previous research, the panel proposed a conceptual framework that hypothesized the relationships between the variables that ultimately predict personnel retention. This framework has been expanded in Figure 1 by including additional components (variables) that are hypothesized to impact upon retention, as well as individual and unit readiness. As can be seen from the Figure 1, spouse concerns, including the employment situation, are hypothesized to contribute (positively or negatively) to the spouse's commitment to Army life. This commitment, in turn, is expected to affect the member's commitment to Army life, family strength, the retention of enlisted personnel and officers, military readiness, and member job performance. Each of these factors is also hypothesized to affect unit readiness. Together, these outcomes are important for the Army's ability to accomplish its mission. In other words, the Army's success hinges on to its ability to recruit and retain the most ready personnel. This ability is considered to be determined, at least in part, through the effects of the set of hypothesized causal relationships depicted in Figure 1.

The importance the Army places on spouse employment and its expected relationship to readiness and retention is clearly indicated in the White Paper, 1983: The Army Family (Chief of Staff, U.S. Army, 1983) and The Army Family Action Plan I (Office of the Deputy Chief of Staff for Personnel, U.S.

Figure 1. Conceptual Framework for the ARI Family Research Program



Army, 1984). These documents state, "... career development (combining long- and short-term goals, training education, and meaningful volunteer or salaried jobs) has become a frequent demand among Army spouses. Increasingly, career development of spouses has forced military families to choose between one career or the other."

Thus, there is the concern that if Army factors limit a spouse's ability to pursue satisfactory employment opportunities, one solution is for the member to leave the Army, thereby having a negative effect on retention.

Spouse Employment as an Issue

In addition to the importance of spouse employment in relation to readiness and retention, the Army has come to view spouse employment as an important area of investigation itself. This view reflects the increasing participation of American women in employment and careers. The Army, as part of the larger society, recognizes the importance of spouse employment to families and the special problems Army life can create for families in which the wife need or wants employment and in career opportunities. Since its introduction as an Army family problem at the 1980 Army Family Symposium, spouse employment has become a primary target for family policy and program implementation (Glacel, 1986). The White Paper 1983: The Army Family (Chief of Staff, U.S. Army, 1983) clearly expresses this concern by acknowledging, "employment of the spouse in a military marriage is often on a temporary or part-time basis and at lower pay, due to frequent and unpredictable military moves."

Consistent with its increased attention to family issues, the Army has initiated a series of policy and program initiatives directed towards the enhancement and facilitation of spouse employment. Executive Order 12362, for example, allows noncompetitive appointment in the continental United States (CONUS) of eligible family members after 24 months service overseas local hire appointments, thus helping to mitigate the negative employment-related effects of a member's overseas assignment. In 1983, the Department of Army (DA) Family Member Priority Placement Program was expanded to provide family member placements for CONUS to outside continental United States (OCONUS) relocations. OCONUS policy has been amended to permit spouses to share jobs overseas.

In addition to policy changes, employment programs are being implemented with the intent of assisting spouses in obtaining satisfactory employment. One-stop employment information centers, for example, are found on a number of bases, with 104 scheduled to be opened by 1990. Thus, examination of both policy and program initiatives indicates the Army is assuming increased responsibility for helping the Army spouse obtain satisfactory employment, both on and off the military installation.

In summary, the Army is interested in spouse employment for two reasons. First, taking a broad perspective, it recognizes that satisfactory employment of spouses may contribute to the retention and readiness of its members, particularly in the future when the military will find itself in stiffer competition with the private sector for qualified personnel. Thus, based on its future implications, this premise clearly warrants further investigation.

Even without empirical evidence of a relationship between spouse employment and retention and readiness, however, the Army currently is interested in enhancing spouse employment to mitigate the negative effects military policies and practices may have on the spouse's employability and career development. From these areas of concern, two sets of issues emerge that warrant careful examination:

- o What are the factors that affect spouse employment? and
- o What is the relationship of spouse employment to retention and readiness?

Approach

In the literature review that follows, we address each of these questions. To facilitate this review, we developed the conceptual model shown in Figure 2 to serve as a framework for viewing hypothesized relationships between variables. In general, variables on the left-hand side of the model depict ones that affect the spouse's employment. Variables found to the right of spouse employment represent hypothesized effects of spouse employment on the family and ultimately, on readiness and retention.

Using the above framework as a guide, we reviewed the literature from several disciplines including economics, sociology, and psychology. We reviewed civilian literature to serve as a source for purposes of comparison; thus, the Army spouse employment literature is treated as a "special case" of the broader-based spouse employment literature. The literature review is divided into two sections, factors affecting spouse employment and the effects of spouse employment as indicated by our model.

Factors Affecting Spouse Employment Decisions and Employment Outcomes

Introduction

In this section we consider factors affecting the decision to work as well as those related to the ability to obtain satisfactory employment. These factors are depicted on the left-hand side of Figure 2. We begin by describing the Army spouse population from a demographic standpoint. Next, for purposes of comparison, we provide information on factors likely to affect married women's employment choices and options, such as their attitudes and commitments to the labor force. Family characteristics and life course factors also exert a major effect on women's role in the labor force and these factors will also be discussed. Similarly, economic factors, (e.g., the need to supplement the family income) are also reviewed, as economic reasons are often considered to play a major role to determine whether or not an Army spouse seeks employment. Army spouses seeking employment are also likely to find themselves underemployed, as a result of frequent relocations and geographical reasons. Issues relating to underemployment will therefore be reviewed. We also have included a review of employment programs and civilian sector relocation practices that serve to assist spouses in preparing for and obtaining a job.

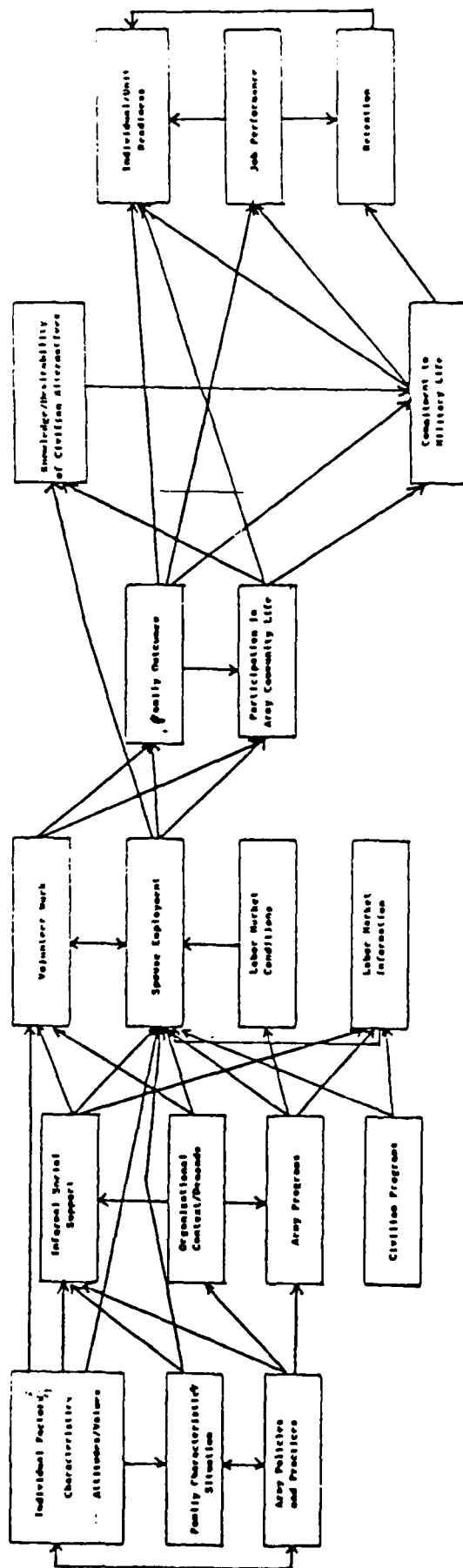
Finally, it is important to recognize that factors affecting employment are not static. As an example, job requirements, are likely to change dramatically as a result of technology. As these jobs change, so too will the skills requirements, thus affecting a spouse's employability. The section on emerging employment trends provides a overview of the expected impact of technology on spouse employment.

A Description of Army Spouses

In 1985, there were 556,000 enlisted personnel and 99,000 officers who had been in the Army at least 10 months (Defense Manpower Data Center, 1985). Of these, 502,000 were enlisted men, 54,000 were enlisted women, 90,000 were male officers, and 9,000 were female officers. Table 1 presents data on the household composition of enlisted personnel and officers by sex. This review is primarily concerned with officers and enlisted personnel who are married. The DoD surveys revealed that 75 percent of all officers and 60 percent of enlisted personnel are married. In addition, there are 24,500 enlisted women who are married, two-thirds of whose husbands are either in the armed forces (eight percent) or employed in the civilian sector (58 percent) and 4,300 married female officers, five percent with husbands in the armed forces and 67 percent with husbands in civilian employment. Of the total of 177,000 employed Army spouses, 71 percent are enlisted men's wives, 18 percent are officers' wives, nine percent are enlisted women's husbands, and two percent are officers' husbands.

As shown in Table 1, the great majority of military spouses are women, and the major proportion of these are the wives of enlisted men. Accordingly, our review will focus primarily on the female spouses, with emphasis given to the wives of enlisted men.

Figure 2. Spouse Employment Model



SPOUSE EMPLOYMENT SUB-MODEL

Table 1

Household Composition of Army Enlisted Personnel and Officers by Sex

	Enlisted		Officer	
	Men	Women	Men	Women
Unmarried--no dependents	34.0	35.8	14.0	42.0
Unmarried--dependents	4.2	10.9	2.4	6.3
Military spouse--no dependents	1.6	14.8	1.4	18.4
Military spouse--dependents	1.9	16.8	1.6	12.7
Civilian spouse--no dependents	12.3	8.9	15.4	9.4
Civilian spouse--dependents	45.9	12.8	65.3	11.1
Total	100.0%	100.0%	100.0%	100.0%
DoD Sample Size	11,918	6,507	3,707	1,145
Total Personnel (thousands) (in thousands)	502	54	90	9

In terms of employment, 40 percent of Army enlisted men's wives and 44 percent of officers' wives have jobs. In numbers, this translates into 126,000 enlisted men's wives and 31,700 officers' wives who are employed. Another six percent of the officers' wives and 12 percent of the wives of enlisted personnel reported that they were unemployed.

Of those Army spouses who work, the majority are employed in full-time positions. Wives of enlisted personnel tend to be concentrated in two main occupations--sales/technician jobs and clerical positions.

Data on Army spouses' level of educational attainment suggest they should have relatively better employment opportunities than the average civilian women. For example, among spouses of enlisted personnel, all but 11 percent have at least 12 years of education, with 54 percent having completed high school and 35 percent having at least some college or other post-secondary education. For officers' wives, the education level is higher, reflecting the higher education of the military officer corps. About 29 percent of the officers' wives are college graduates and another 17 percent have postgraduate education. Only 21 percent of the officers' have attained spouses have had no college. Thus, Army spouses, in general, higher education levels than their civilian counterparts.

Army spouses, particularly the wives of enlisted personnel, also tend to be relatively young. The DoD surveys revealed that the majority (56 percent) of the wives of enlisted men are in their 20s. In comparison, officers' wives tend to be slightly older; nearly 72 percent are 30 and older.

Problems of Unemployment and Underemployment Experienced by Army Spouses

There is some evidence that military spouses experience more difficulty with unemployment, underemployment, and career development than do civilian married women (Military Family Resource Center, 1984; U.S. Army Civilian Personnel Center, 1985). Recent BLS data indicate that the unemployment rate for spouses (17.2 percent) was more than three times that for comparable women in the civilian sector (5.4%). Survey data from the U.S. Army Civilian Personnel Center (1985) investigation give unemployment rates of 29.4 percent for Army spouses compared with 7.2 percent for DA civilian employees. Investigations of Navy and Air Force personnel have reported that nearly three-fourths of spouses who were not working said they would like to work (Nieva, 1979; Orthner, 1980). Part of the employment-related difficulties experienced by military spouses stem from the frequency with which their member-spouse must relocate (Glacel, 1986). After each move, the spouse must obtain new employment, making their situation analogous to spouses who work intermittently. Limited job stays prevent the spouse from obtaining the job tenure typically required for advancement. There may also be some reluctance on the part of employers to hire military spouses. Research does, in fact, indicate spouses are less likely to receive additional training because of their known limited stay on the job. Thus, it would appear that military spouses often are forced into low paying positions with limited advancement opportunities. While more data are needed to investigate this problem, some research does indicate its existence. In a recent survey, for example, spouses reported being restricted to entry-level and temporary jobs (U.S. Army Civilian Personnel Center, 1985). The National Military Wives' Association (1982) investigation of spouse and family issues in Europe identified a number of barriers to employment encountered by wives overseas. These included legal and regulational barriers (e.g., status of forces agreements and civil service regulations) that compounded lack of available jobs and educational opportunities, as well support services perceived to be insufficient and insensitive. Thus, it appears that, in addition to problems of unemployment, other hidden factors, such as underemployment and lower status, may be problems for military spouses.

A review of employment patterns of married women in the larger U.S. society provides a background and comparison with the situations of Army spouses.

A Description of the Employment of Civilian Wives

It is well documented that a large percentage of married women are participants in the labor force (Avioli, 1985; Gordon & Kammeyer, 1980; Hayghe, 1983; Waldman, 1983). Figures from the U.S. Department of Labor (England & Farkas, 1986), for example, indicate that from 1950-1980, women's employment rose from 34 percent to 52 percent. Those married women with children between 6 and 17 demonstrated a 121 percent increase--from 28 percent to 62 percent. And, for the group with children under 6 years of age, the employment rates showed an increase of 275 percent, from a 12 percent rate in 1950 to a 45 percent rate of employment in 1980. Similar figures are reported for 1985 by the Bureau of Labor Statistics (Hayghe, 1986) reveal that 54.7 percent of all wives participated in the labor force as did 53.7 percent of

wives with children under age 6 and 67.8 percent of those with children 6 to 17 years of age. In only two groups, wives with children age 1 and under and wives with no children under the age of 18, was the labor force participation rate lower than 50 percent (49.4 percent and 48.2 percent, respectively). Nearly all of this increase was in the full-time employment; part-time rates remained relatively stable.

Interestingly, even the lowest employment rate for any given cohort of women (48.2) is higher than the employment rate for Army wives 40 percent for enlisted men's wives, 44 percent for officers' wives). The Army rate is about 10 percent lower than the rate for the overall population of civilian women.

It is evident from labor force data that women's employment has changed considerably over the past 35 years. It may be enlightening in terms of understanding these changes to examine why women work and their level of attachment to the labor force.

Examination of Why Women Work

There are a number of reasons women work, although evidence indicates financial need is probably the most important (Hayghe, 1983). The 1980 Virginia Slims American Women's Opinion Poll, the CBS Poll conducted in 1982, and the 1983 New York Times Women's Survey show that 46, 56, and 60 percent of women report that they work to support themselves and/or their families. Extra income was cited by 43, 25, and 21 percent of women, respectively. Just over one-third of the female respondents to the 1983 New York Times Women's Survey said the loss of their job would have a major financial effect on the family.

Financial reasons alone, however, are not sufficient to explain why women work. In each of the above surveys, for instance, 14, 13, and 12 percent of the women said that they worked to have something interesting to do. Furthermore, only 17 percent of employed women (as compared to 10 percent of employed men) said that, given enough independent income, they would stop working. Nearly half said that they would continue in their current jobs and one-third said they would find more interesting work. Thus, over 80 percent of employed women say that they would remain in the labor force regardless of monetary factors, indicating an interest that extends beyond financial pressure.

Job salience and commitment are further indicators of women's personal interests in their jobs. Some evidence suggests women are as committed in their jobs as men. Sekaran (1982), on the basis of an investigation of 127 dual career families in the midwest, found no significant difference between men and women in how salient they considered their careers. It was found that, in general, married women and mothers consider their careers as salient, are job involved, have a high sense of competence, and derive personal rewards from the work place.

Other research also indicates women are committed to the work force although this may be masked by exits mandated by life cycle events such as the

birth of a child. Sobol (1974) cites U.S. Department of Labor, Women's Bureau, statistics showing that 42 percent of the women who worked at some time in 1967 were employed full time the year round, compared to 70 percent of men. She argues, however, that women are likely to move in and out of the labor force and that, therefore, work commitment is a relevant factor for analysis. She suggests measuring work commitment in terms of work history, long range plans or wishes, and devotion to the job, and recommends that scales be based on both attitudinal and behavioral questions. Finally, Sobol suggests distinguishing between work commitment and commitment to a particular job. Rosenfeld (1978) argues that women are "known" to have low attachment to the labor force and are, therefore, less likely to be included in employer-sponsored training programs. She cites Thurow's (1975) suggestion that the higher probability of women leaving the full-time labor force is counterbalanced by the greater likelihood of job switching behavior among men. Thus, the average period of employment by anyone employed is not much different between males and females.

Similarly, at first glance, available research would suggest Army wives have a lower commitment to the labor force. For example, Long (1974) concludes that the lower economic contribution of military wives implies a weaker commitment to independent careers and a weaker attachment to the work force; however, he fails to control for greater mobility among military families and for the limited job opportunities on or near many military installations. The final report of the National Military Wives Association (1982) investigation of spouse employment in Europe provides anecdotal evidence that employment opportunities and the mechanisms available for obtaining employment do not meet the needs of military spouses in terms of either quantity or quality of jobs. The report suggests that unemployment, underemployment, and inappropriate employment are common problems for military spouses in Europe. If so, these factors would also enhance the appearance that military wives have a weaker attachment to the work force than their civilian counterparts or men.

In short, a main reason for women's employment is financial. In addition, however, women seek employment as a source of personal satisfaction. Commitment and salience reflect this, although these factors may be masked, to some extent, by women's withdrawals due to life course events.

In summary, a number of demographic factors, such as socioeconomic status, education, race, age, and parental status, as well as economic need and personal expectations all combine at the individual level, to influence whether a married woman will enter the work force and what sort of work related activities she will engage in. Although differences between officers' and enlisted men's wives in educational level socioeconomic status of family of origin and of member's sex-role socialization, and a number of other factors may produce differences in these women's needs and expectations for employment and employment-related services, it is also important to focus attention on individual women's situations, similarities between subgroups of officers' and enlisted men's wives (e.g., well-educated wives of senior enlisted personnel) and change, including both change over the family life course and change over time in American women's work experience and expectations.

Family Factors

A woman often considers the needs and wishes of her family, as well as her individual goals, when making employment decisions. Mortimer and Sorenson (1984), for example, indicate that, at least traditionally, men's work demands are assumed to take precedence over their family needs. For working wives, however, work demands are not assumed to take precedence. Indeed, it is assumed that family demands will have greater importance and remain the primary responsibility of the wife whether or not she is employed outside the home on a full- or part-time basis. For some women the demands of the "double day" (i.e., paid work plus housework) may determine whether they seek part-time or full-time employment and may explain the high proportion of part-time employment among women. This discussion is relevant to the careers of military officers, at least until recently. Segal (1986) cites Shea's The Army Wife (1986) as a source for these traditional expectations. In recent times, however, military spouses at all ranks are increasingly employed and the dual-earner and dual-career families are becoming more common.

The growth of the dual career family has had a considerable impact on the military family. Segal (1986), for example, has examined a number of aspects of military family life and the extent to which the needs of the military and the needs of the family compete for the time and energy of the married military member. She points out that this competition is taking place during a time of great social change. As women participate in the work force in increasing numbers, the roles of both men and women within the family change. This background of change makes resolution of the competition more problematic for the military family. She states that geographic mobility of the military family is especially harmful to spouses' employment possibilities and career continuity. She cites evidence that unemployment rates are higher for military than for civilian wives and gives this as a major cause for the lower family income in the military. Geographic mobility interferes with normal career progression and loss of seniority. Segal also cites data on labor force participation of military wives showing their rates to be catching up to the rates for civilian wives but also showing their greater difficulty in finding employment; she states, "In March, 1984, military wives had a jobless rate of 17 percent, more than three times the national rate of 5.3 percent" (Segal, 1986). Thus, for the military spouse who is interested in employment, whether job or career, the geographic mobility of her husband is a serious handicap.

Other family factors also spill over into the work place. This phenomenon occurs mainly for the mothers of young children (Crouter, 1984). When both spouses work, women still bear the primary responsibility for child care and are most often the parent whose work is affected by the demands caused by sick children, disruptions in child care, and other parental obligations. Greenhaus and Kopelman (1981) also discuss the family-work conflict and conclude that young children place greater demands on working parents than any other family-related factor. This is an important factor for Army families. Data from the 1985 DoD surveys show that, overall, half (53 percent) of Army enlisted couples and two-fifth (40 percent) of officer couples have a youngest child age 5 or younger; moreover, among Army couples with a child this age, 30 percent of enlisted men's wives are employed (another 13 percent are

unemployed and seeking a job) as are 28 percent of officers' wives (among officers' wives, eight percent are unemployed) (Griffith, Lavange, Gabel, Doering, & Mahoney, 1986).

Friedan (1981) discusses at length the issues of work and family as they impact on both men and women. She reports that at the 1980 White House Conference on Families held in Baltimore, Maryland, the most strongly supported demands included the development of alternative forms of quality child care (both center-and home-based) and the innovation development of policies that enable persons to hold jobs while maintaining a strong family life options suggested included varied work arrangements as flex-time, flexible leave policies for both sexes, job-sharing programs, dependent-care options and part-time jobs with pro-rated pay and benefits. Glazer (1984) also discusses the effects of combining paid and unpaid work (i.e., housework and child care) and lists similar examples of support services that would ease the burden for women.

While a husband's career and family demands in general may restrict a woman's career, it appears increasingly unlikely that a husband's attitudes will prevent his wife from working. According to the General Mills American Family Report (1980-81) only women homemakers, family members over 65 years of age, and family traditionalists agree in large numbers (62, 65, and 79 percent respectively) that women should remain at home. Lopata, Barnewsolt, and Norr (1980) found that the higher the educational and occupational levels of the husband and the wife, the more positively the woman perceives her husband's feelings toward her working. Huber and Spitze (1982) concluded that the wife's perception of her husband's attitude was an adequate substitute for his actual attitude although some inconsistencies were found. Spitze and Waite (1981) found that during the early years of marriage, husbands revised their attitudes to conform with their wives' employment attitudes and behaviors. It seems likely, then, that the influence of husbands' attitudes on their wives' employment may be limited to the most traditional families and, perhaps, only when economic need is not great.

Childbearing and Family Life Course Factors

A woman's childbearing role also may play a significant role in her employment decisions. Waite (1980), for example, has investigated working wives in the early stages of the family life cycle—from marriage through the completion of child-bearing. She asserts that a full understanding of the familial context in which women make decisions about labor force participation requires more than knowing whether a woman has children. Waite divides early marriage and childbearing for women into three stages: 1) before having children, 2) when some children are present but more children are expected, and 3) when childbearing is completed. She maintains mothers who anticipate future births do not respond to forces that influence market activity in the same way as women who consider childbearing finished. Expectations about future events, family financial circumstances such as the husband's income and the wife's earning potential, and the characteristics of the labor market in which the family lives tend to be more important considerations in the labor force choices of married women who have finished childbearing than for those in earlier stages.

Women also are forced to cope with the dual roles of "breadwinner" and "mother" over the course of the family's development. As Oppenheimer (1974) notes, women are often forced by the "life cycle squeeze" to contribute to family income at varying times. Family expenses and husbands' earnings do not rise and fall together; however, the effect of husband's income on wife's labor force participation is complex. Oppenheimer discusses the relationship in terms of the discrepancy between the family's economic aspirations (for consumption, savings, etc.) and the husband's income (i.e., income adequacy). The family life cycle typically includes two periods of high expenses: the early years of marriage, during which time large investments in housing and household durables are made, and a period when children are adolescents and college age. The current trend for children to leave school at later ages even among blue-collar families has caused this later costly period of the family life cycle to become more extensive over time.

It is clear, then, that whether women work at jobs or pursue careers and whether they work full- or part-time, they are entering the work force in increasing numbers. Some work only until the birth of the first child, some work throughout the childbearing years, and some work only after their children have entered school. For women who are pursuing careers, childbearing may be postponed until the career is established and career decisions that affect both members of a dual career couple are likely to be made jointly and may involve geographic separation (Friedan, 1981; Gerstel & Gross, 1982). Decisions faced by women seeking jobs, especially out of economic necessity, may be based on very different factors.

Because of the salience given to the economic factors in women's employment, these will now be reviewed in greater detail.

Economic Factors

As we discuss above there is evidence that military wives experience more difficulty with unemployment, underemployment and career development than do civilian married women: unemployment is higher for military wives than for comparable women in the civilian sector and earnings are lower for military wives than for their civilian counterparts (i.e., underemployment or wage discrimination). Reasons for this may be the need to relocate frequently; moves to areas with limited employment opportunities; less elasticity of labor supply for military wives relative to that of civilian married women; and the fact that employers may be operating in spatially isolated markets that allows them to exercise monopsony power. These are important factors to examine, especially because of the concern that spouse employment/career difficulties among military wives negatively affects retention.

In reviewing the economics literature we focus on married women and the economics of the family. Where applicable we discuss how these general models can be extended to the special case of the military spouse. We contribute to this literature by incorporating the influence of the husband's being in a military occupation (rather than a civilian one on the wives' participation in the labor force and by incorporating spatial aspects of military wives' labor force participation. Although several investigations have examined spatial

aspects of female labor force participation, unemployment, and wage rates (Madden & White, 1980; Lillydahl & Singell, 1985; Madden, 1977; Madden 1981), none has focused on the military wife.

Household Production and the Labor Supply of Married Women

The theory of labor supply focuses on the labor-leisure choice of the individual. Assuming that leisure is a normal good, the general model states that the demand for leisure is a decreasing function of wages and an increasing function of income. A *ceteris paribus* increase in income has a positive effect on leisure and a negative effect on market work. This is the income effect.

Counteracting this effect is the substitution effect. If wages go up, holding income constant, the demand for leisure will go down and hours of work will increase. In the individual choice model we assume that individuals work outside the home in order to participate in consumption activities. In order to expand this theory to the family unit we must include both household production and consumption activities (Becker, 1965, 1975, 1985).

In the household production model, both consumption and production take place in the home. Assuming that the wife is involved in both activities, an increase in the market wage relative to the housewife's wage will have two effects: the income effect will induce her to spend more time at home and fewer hours working outside the home; the substitution effect will induce her to substitute market work for house work because her wages have increased. The degree of the substitution depends on the substitutability of market goods for home goods. In addition to these effects, there is also substitution in consumption that occurs as the market wage rate increases.

According to household production theory, a utility maximizing household will decide whether none, one or both spouses will be in the labor force based on the market wage rate relative to home productivity. If an hour spent at work more than compensates for an hour lost in home production time then the household is better off with both spouses performing market work.

The original framework for analyzing women's participation in the labor force, developed by Mincer (1962), points out that the market wage influences the allocation of time between market work and leisure as well as between work in the market and work in the home. This conceptual framework has been used extensively to estimate labor supply functions for married women.

It has generally been found in empirical investigations that the wife's labor force participation will decline as the husband's income increases. In this case the husband and wife are substitutes in home production and as the opportunity cost of the husband spending time at home increases (i.e., as his market wage increases) the wife substitutes for him in household production.

In his cross-sectional research, Mincer (1962) found that wives' wages have a positive effect on labor force participation while husbands' income has a negative effect. These results have been generally upheld in subsequent investigations with more recent data (Fields, 1976) although the wage and

income coefficients have weakened. In a more recent investigation, O'Neill (1981) analyzed women's labor force participation using time series data for four age groups of married women and for all women. Her results generally support the cross-sectional results: wages increase the labor supply of married women; husband's income decreases the labor supply; unemployment has a negative effect but is insignificant; the divorce rate has a positive effect; the industrial structure index unexpectedly has a negative signal; and past fertility has a positive effect on labor force rates for older women. The following labor supply equation is estimated:

$$\text{LFPR} = a_1 + a_2 \text{ Earnings} - a_3 \text{ Income} - a_4 \text{ Unemp} + a_5 \text{ Divorce rate} + a_6 \text{ IndustMix} + a_7 \text{ Time} + a_8 \text{ Fertility} + e$$

Another important result is that over the period 1968 to 1978, women aged 20-34 had a rapid increase in labor force participation.

These results have important implications for Army spouses. We expect young Army wives and Army wives married to husbands with low incomes (e.g., low ranking enlisted men) to be in the labor force. In addition, if military wives and husbands are substitutes in home production, their relative market wage rate or relative opportunity costs will determine the degree of responsibility for household work. This may have important implications for readiness.

Women and Families: Life Cycle Perspective

The life cycle theory predicts that family units make decisions about total lifetime commitment to the labor force based on income expectations but participation is timed to take advantage of fluctuations in the market. Hence, in the long run, tradeoffs between leisure and income determine labor force participation, but in the short run trade-offs between market and home productivity determine changes in labor force participation. Empirical results show women to be much more responsive to the business cycle than prime age men. In part this has been explained by the attractiveness of non-market activities. Over the business cycle, the attractiveness of market activities changes while the attractiveness of non-market activities does not.

Lloyd and Niemi (1978) examine whether the elasticity of labor supply with respect to employment conditions has changed over time and, if so, by which demographic groups. The authors show that "discouragement" is not solely a function of employment rates but other demand factors that affect employment conditions over the business cycle (i.e., the wage rate and the proportion of females in total employment). Growth in industries traditionally employing women has reinforced their flow into the labor force. However, the gap between women's actual share in total employment and what it would be if their representation in industries remained constant has widened.

Human Capital and Wages. Just as capital equipment or machines contribute to an individual's productivity, the possession of a skill, a body of knowledge, or valuable experience can make an individual more productive. Hence, economists think about skill as human capital. The individual who invests in education or training acquires human capital, therefore the wage

associated with a job should reflect the costs of obtaining the necessary human capital for that job. Many economists assert that women earn lower wages than men simply because they have less human capital and they have less human capital as a result of rational decisions to "invest less" in themselves. Becker (1985) has recently argued that the housework responsibilities of married women may be responsible for the differences in earnings and job segregation between men and women. Becker maintains that it is rational (and inevitable) for women to choose to do housework and as a result they have less energy for work outside the home. Hence, he argues the housework responsibility leads to the wage differential because women are less productive outside the home.

While it may be true that human capital differences account for some wage differences they do not account for all of the observed wage differences. The basic earnings model can be written as follows:

$$\ln \text{Earnings} = f(\text{exp}, \text{exp}^2, \text{educ}, \text{other characteristics})$$

where experience and education are proxies for productivity.

Corcoran and Duncan (1979) investigated the wage gap between men and women controlling for human capital characteristics including education, years of experience, training, years out of the labor force and other factors pertinent to career success. They found that all of these factors combined accounted for only 45 percent of the wage gap. It may be hypothesized that the remaining 55 percent is attributable, at least in part, although this has not yet been determined.

Mincer and Polachek (1974) are leading proponents of the view that wage differences between men and women are due to human capital differences and to women's voluntary choices. They deny the existence of discrimination, however, in their analysis only 59 per cent of the wage gap is accounted for by these factors.

Interrupted Careers and Wages. In the household production model people are considered to be productive in both the home and a market job and the decision to work outside the home is dependent on these relative productivities. It is often assumed that when young children are present, the home productivity of married women increases. As a result many married women interrupt their careers at this time. As children grow older, women resume their careers.

The existence of "human capital depreciation" when career interruptions take place has been a subject of controversy in the labor economics literature. Interruption of a work career may reduce earnings potential. The controversy has centered around whether real wages at re-entry are lower than wages at the time of labor force withdrawal. Mincer and Ofek (1982), using panel data on married women from the National Longitudinal Survey, find that real wages are lower at re-entry and the decline increases with the length of the interruption. This contradicts the conclusions of Corcoran and Duncan (1979) who, using the Panel Study of Income Dynamics, find that labor force

withdrawals do reduce wages because work experience is not being accumulated, but there is no additional penalty due to skills depreciation.

Mincer and Ofek also find rapid growth in wages after re-entry. This rebound effect is interpreted as the "reconstruction" or "repair" of human capital which is assumed to be less costly than the new construction of new human capital. After the pre-interruption wage level is restored the earnings profile of returners is parallel to that of stayers.

Mincer and Ofek estimate an earnings equation to determine the short and long run effects of non-participation in the labor force and labor force experience. Their findings show the total cost of a year outside the labor force (i.e., nonparticipation) to be between 1.5 and 1.8 percent of wage decline in the long run and between 3.3 percent and 7.6 percent of wage decline in the short run. In general, the wage profiles of intermittent worker remains lower and flatter than the profile of continuous workers. It is also important to note that interruptions associated with migration result in even greater wage depreciation, which has important implications for military wives, as discussed previously.

Maxwell and D'Amico (1986) examine gender differences in the consequences of involuntary job termination. The issue, however, is whether military wives have a more difficult time finding jobs than civilians after job termination (i.e., the cost of mobility to military wives versus civilians).

It is generally argued that a worker with a large stock of general human capital will be able to transfer it easily to another firm and lose little in wages, whereas a worker with a large stock of firm-specific skills may not be able to transfer these skills and may suffer larger losses in wages and productivity. This is often cited as the reason why women who expect intermittent labor force participation will invest in more general human capital. This view suggests that women will suffer less in terms of wage loss than men upon displacement due to the differential in human capital investments.

Maxwell and D'Amico estimate a multinomial logit model of employment status (employed, unemployed and out of labor force) and an OLS model of wage loss controlling for human capital (tenure, education labor market specialization, pre-displacement wage, age and race), institutions (industry, occupation, industry growth, changing residence), and gender.

They find that females have a harder time finding employment than males in the short run and are much more likely to drop out of the labor force and that females have greater wage loss than males. Having low wages, low tenure, and contributing little to family income (i.e., traits associated with being female) are all associated with being unemployed. However because this research is based on mainstream workers and not typical women workers, these results may be understating gender differences in post displacement employment and wage gain.

Cox (1984) examines the impact of future interruptions on early wage growth for working women using panel data from social security records. Although

Corcoran, Duncan and Ponza (1983) find little relationship between the two, Cox finds that life cycle earnings growth is affected by both past and future career interruptions. This research supports the conclusions of Mincer and Ofek (1982): earnings potential declines during periods of nonuse, and re-entry wage growth is large. Cox also finds that women who experience career interruptions have lower earnings profiles than those of continuous workers and that panel estimates of earning growth and depreciation rates are higher than cross-sectional ones. Cox explains these findings with a simple human capital argument: workers who expect to remain in the work-force for a shorter time (e.g., women) will invest less time in learning than workers who expect to be in the work-force for a longer period of time.

Occupational Choice and Wages. Occupational choice theory assumes that workers choose a job that maximizes their utility, not their income. A basic assumption of this theory is that workers have a wide range of job offers from which to choose over a period of time. For military wives, due to the geographic constraints this may not be the case.

Polachek (1985) argues that the theory of human capital is sufficient to explain gender differences in occupational distribution. Juxtaposed to this viewpoint are England (1982) and Beller (1982) who provide support the argument that discrimination is the underlying cause of occupational sex differences. Although there is agreement that occupational segregation contributes to wage differentials, the basis of the wage discrimination is controversial.

Polachek (1981) attempts to examine how intermittent labor force behavior affects occupational segregation. He employs a hedonic price model that puts occupational choice into a human capital framework. As discussed earlier, human capital models assume that decisions regarding earnings, investment in schooling, labor force participation, etc. are made early in one's lifetime. It has been shown that earnings profiles over a lifetime are concave and that for those with interrupted careers (e.g., many married women) earnings profiles are lower and flatter. Polachek hypothesizes that duration of time in the labor force is related to occupational choice. Polachek examines eight aggregate occupational groupings--professional, managerial, clerical, sales, craft, operative, household, and service workers--and finds that differences in labor force commitment account for much of the differences in occupation. Hence, life cycle labor force participation is related to career choice.

Bielby and Baron (1986) examine the determinants of sex segregation in occupations employing both men and women. Their findings are consistent with the theory of statistical discrimination. Under this theory employers make rational decisions based on stereotypes to evaluate potential productivity and sex is one indicator of differences in average productivity. It is too costly to obtain individual applicant information when making hiring decisions, hence, employees rely on "group" information. Under this scenario employers reserve jobs with high replacements costs for groups with greater expected productivity, commitment and job tenure. Bielby and Baron examine the consistency of employer hiring practices and staffing patterns with predictions of the statistical discrimination model.

Bielby and Baron find that there is near complete sex segregation across organizations and job titles in mixed occupations. These findings are consistent with the model of statistical discrimination; however there is no evidence to support the notion that this type of behavior is optimal. The authors conclude that there are organizational features such, as expectancy confirmation sequences and institutionalized gender-based job assignment that sustain the sex division of labor.

Spatial/Location Aspects of Spouse Employment

Hall (1982) examined the job tenure of American workers based on data from the Current Population survey. In 1978, the median job tenure among workers was 3.6 years. Disadvantages facing blacks and women are often explained by the lack of success of these groups in finding and holding permanent jobs. Comparisons between men and women confirm the general notion that men hold jobs longer. In the total labor force, the median tenure was 4.5 years for men and 2.6 years for women. Similarly, large sex differences in tenure were found in the major female occupations: clerical workers; professional and technical workers; and service workers. For military wives, job tenure is often dependent on the husband's length of stay at a particular base. Because of the frequent permanent change of station (PCS) moves experienced by Army wife, the spatial/relocation aspects of spouse labor supply are important for them.

In general, military wives select their location conditional on their husbands location and are likely to be out of the labor force or unemployed directly following a PCS move. Hence, the decision to participate in the

labor force as well as the decision of where to work is conditioned on the husband's job location for the majority of Army wives.

When a spatial dimension is added to the competitive market model, the competitive tendencies for wage equalization are weakened because employers operate in a geographical monopsony. In this case it may be profit maximizing for employers to pay women less than men. In the case of military spouses, the spatial dimension is a necessary factor in modeling employment opportunities for the following reasons: military spouses are not perfectly mobile; empirical investigations suggest that women are less willing than men to commute in terms of both distance and time, and that women's elasticity of labor supply is smaller than men's; and employers near military installations may be operating in spatially isolated markets. All of these factors suggest that the competitive model may not be appropriate for modeling the employment opportunities of military wives and that a model which incorporates monopsonistic or oligopsonistic behavior may be more appropriate.

The power or exploitation model of discrimination assumes that labor markets are not competitive but maintains that firms are profit maximizers. Madden (1977) uses this model to show that in spatially separated markets, wage discrimination can arise as a consequence of profit maximizing decisions. Thus, it will be optimal for employers to pay equally productive women less

than men and there is no tendency toward equalization unless there is government intervention.

Lillydahl and Singell (1985) find that when male and female unemployment and participation rates are analyzed separately, different spatial patterns exist for each. However no significant pattern exists for the overall labor market. This is not surprising since women's experience in the labor force differs considerably from men's experience. Research on work-place and residential location suggests that women tend to earn less, work in different occupations, work shorter hours, and commute less than men (Madden, 1981).

Lillydahl and Singell (1985) estimate unemployment and labor force participation equations for males and females separately. Education has a positive effect on labor force participation, consistent with the human capital literature. The sign on the distance variable is negative for women, indicating an increasing negative effect on labor force participation. The most interesting result is the negative relationship between percent professional and female labor force participation. Lillydahl and Singell explain this in two ways: (1) the negative sign may reflect difficulties professional women have finding jobs if choice of residential location is made with respect to husband's job; and (2) wives of professionals may have a reduced incentive to work because of high household income. Commuting time has a negative effect for women and a positive one for men. Higher unemployment rates are associated with withdrawal from the labor force, supporting the discouraged worker hypothesis.

There is no research on the spatial patterns of unemployment and participation rates for military versus civilian wives. We hypothesize that military spouses are "worse off" than their civilian counterparts for the following reasons: they select (or are extremely likely to have selected) their location conditional on the husband's work-place location; in general, the labor market opportunities near military installations are not as great as opportunities in the U.S. on average; and, for military wives at installations outside the U.S. employment is extremely limited. Therefore, programs aimed at providing job information to military wives or instituting employment programs aimed at military wives may be useful in overcoming these disadvantages.

Madden and White (1980) describe two approaches to constructing an urban model of the behavior of two earner households. In the traditional decision-making model, rather than deciding on a utility maximizing residential location (job location fixed), married women workers (i.e., second earners) view their residential location as fixed and decide on a job location that maximizes utility (Kain, 1962). The non-traditional household decision-making theory assumes that households maximize a utility function defined for both spouses.

Madden and White conclude that it is necessary to simultaneously model the work location and the residential location choices of a household. A simultaneous model of work and residential location is appropriate for examining the interactions between spouse employment and retention decisions. However, for non-decision points in time, the military wife's participation

decision is conditional on her residential location (i.e., the husband's job location). Hence, the labor force participation decision for military wives should be modeled following the traditional decision model: job location is decided conditional on residential location.

The Economics of Discrimination

Much of the discrimination literature focuses on male-female wage differentials. In reviewing this literature, we extend the male-female dichotomy to military-civilian discrimination and hypothesize the existence of a "military discrimination" or attitude toward the military factor which is related to frequency of relocation. (Conceptually this is not very different from the arguments regarding sex discrimination.) Military discrimination can be defined as a difference in wages between military spouses and their civilian counterparts with the same level of physical productivity (i.e., human capital).

In order to measure "military" discrimination empirically, individuals with the same objective characteristics—education, experience, and training—or the same level of human capital must be compared.

If women are paid less than men because they are less productive, women are not discriminated against. However, discrimination occurs if women are paid less than men because they are members of a group labelled "women." Sex discrimination in wages or pay is defined as a difference in wages between men and women with the same level of physical productivity (Madden, 1986). Likewise, if military wives receive lower wages than their civilian counterparts with the same level of productivity because they are "military" wives, then military wives are discriminated against.

In order to determine whether a pay differential is discriminatory against a particular group, members of the group must be compared to nonmembers with the same level of productivity. In the case of the military, military wives would be compared to civilian wives to evaluate the degree of military-based discrimination.

Two approaches have traditionally been used to estimate sex-earnings differentials. Similar models would be appropriate to examine military/civilian spouse wage differentials. In the first approach the following earnings equation is estimated separately for men and women:

$$\ln \text{EARN} = b_0 + b_1 X_1 + b_2 X_2 + \dots + b_n X_n$$

where $X_1, \dots, X_n$ are worker characteristics and $\text{EARN} = \text{earnings}$.

This equation is estimated for both groups and the following is computed:

$$\ln \text{EARN males} / \ln \text{EARN females} = Y_m - Y_f = (\bar{X}_m - \bar{X}_f) b_m + (b_m - b_f) \bar{X}_f$$

where the first term represents the pay differential due to productivity and the second term represents the pay differential due to sex-discrimination (Oaxaca, 1973). To determine the wage differential between civilian and

military married women, we would estimate the earnings equation for each group and then compare civilian versus military, rather than male versus female.

The second approach is to include males and females in the same equation and include sex as a worker characteristic. Using this approach, the estimated coefficient on the sex variable is a measure of the effect of sex on wages after adjusting for other factors. For the military/civilian dichotomy, military would replace sex as a worker characteristic.

Although many empirical investigations have utilized these methods in an attempt to explain the sex-wage differential (Treiman & Hartmann, 1981) most explain less than half of the variation in wages (Madden, 1981).

In summary, there are two basic arguments or hypotheses regarding discrimination: (1) the human capital argument, which states that women choose to be less productive in the labor market in order to be more productive at home because they prefer household activities; and (2) the power or institutional argument, which states that, as a result of discrimination, women have more difficulty finding full time jobs with opportunities for advancement and training so they invest less in labor market skills.

Becker's discrimination model, which assumes that employers, customers or employees have a taste for discrimination, and the statistical discrimination model, which assumes that employers make decisions based on group characteristics not individual ones, can both be characterized as human capital arguments.

Under the power model, monopsony power is assumed to exist where there is one employer (or oligopsony with a few employers) in a specific local labor market and discriminatory outcomes are the result of the firm's power to manipulate the market. Institutional incentives and procedures make discrimination economically advantageous.

Cardwell and Rosenweig (1980) test for monopsonistic sex-wage determination. The source of monopsony wage discrimination may be due to limited job opportunities or immobility in the labor market, both of which are relevant factors for military wives. Cardwell and Rosenweig developed a direct test for monopsonistic wage determination derived from neoclassical theory (Robinson, 1934; Madden, 1975). The authors find that women's wages appear to be more affected by monopsony power than men's in areas characterized by high unionization and low rates of female participation in male occupations. These are important control variables when modeling wage differences for military wives.

Immobility, lack of job opportunities, occupational segregation, or union activity will result in a firm's having some control over wages paid. Hence, the labor supply curve facing the firm will be perfectly elastic. Military wives often make "tied" moves and are therefore immobile. In addition, many military wives are in sparsely populated areas or areas with limited job opportunities. Therefore military wives may be prime targets for this type of wage discrimination.

Employment Assistance Programs

Up to this point, we have focused primarily on factors that affect the employment of married women in general, and on the particular features of Army life that appear to cause special spouse employment problems (e.g., frequent moves, isolated locations, and the demands the Army as a "greedy institution" (Segal, 1986) places on members and families), as well as characteristics that affect Army wives' human capital, both positively (e.g., education) and negatively (e.g., frequent work interruptions). The findings of this review, as well as the Army's expressed commitment to enhancing spouse employment, next direct attention to approaches to improving Army spouse employment opportunities and success in obtaining employment. The Army's support of the need for spouse employment assistance is demonstrated through the significant policy and program initiatives already underway to facilitate spouse employment. Furthermore, the Army's direction to the current project to provide the information on the most effective employment assistance techniques indicates recognition of ongoing needs in this area as increasing numbers of women join the labor force. Thus, to continue improving its efforts to enhance spouse employment, the Army has requested information on the most effective mechanisms for proactively assisting spouses in obtaining employment.

As a preliminary step in accomplishing the goal of discovering ways to enhance Army spouse employment, we have reviewed general employment assistant techniques found in the civilian sector, the results of which are presented below and are organized as follows. First, we offer an overall framework from which to consider the variety of employment needs that army spouses may have. Next, we describe, in general terms, the components comprising a civilian employment assistance programs. That is followed by a presentation of employment assistance models and evaluation results regarding their effectiveness.

A General Employment Assistance Model

In reviewing the employment assistance literature, it is important to keep in mind the variety of needs experienced by Army spouses. In general, these needs parallel those found among civilians. Specifically, the employment process may be considered as analogous to a journey, with some having considerably farther to travel than other before reaching the ultimate destination, appropriate employment. Figure 3 depicts this process schematically. Job seekers who, for instance, are entering the labor force for the first time or after an extended interruption may require considerable vocational guidance and/or training prior to locating a job. Others (for example, professional women whose careers have been temporarily interrupted by the husband's relocation) may be completely job ready and simply require assistance in locating a job. To meet the differing needs job seekers, existing employment programs typically offer a mix of components, that may include counseling, training, and placement assistance. These components, provided either jointly or separately, constitute the underpinnings for most employment assistance programs. Each will be reviewed below, the following this overview, we will review specific employment assistance models.

Components Commonly Included in Employment Assistance Programs

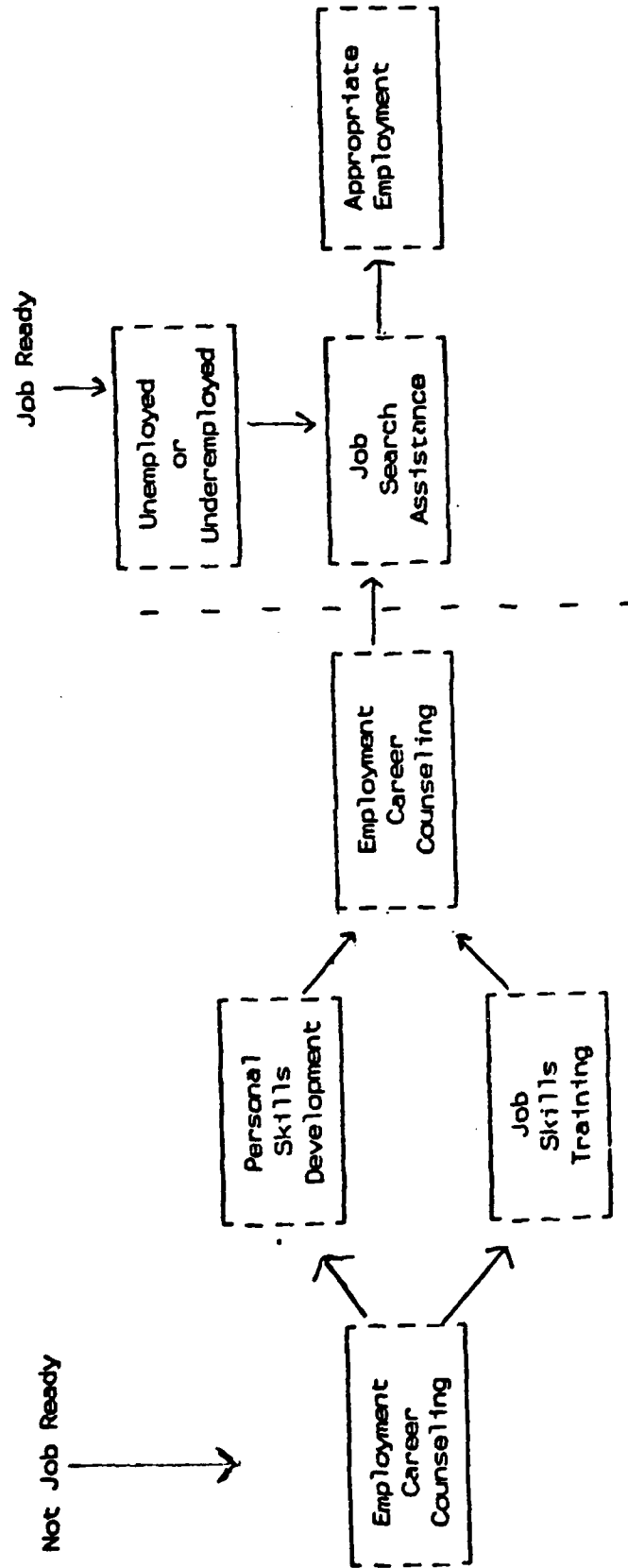
Counseling. Most employment assistance programs includes a counseling component, although the extent of services vary considerably across programs. In some, for instance, counseling may simply consist of a discussion between counselor and client of available job opportunities compatible with the client's given set of skills. More comprehensive forms of counseling often include the administration of aptitude and vocational preference tests that are designed to assist a client in assessing personal job-related strengths and weaknesses. Some of the most widely used aptitude test batteries include:

- o The Differential Aptitude Tests (DAT) that provides scores in the areas of reasoning, spatial relations, clerical speed, spelling, and language usage; and
- o The General Aptitude Test Battery (GATB) that provides nine scores (e.g., intelligence, verbal, numerical, and spatial aptitudes, form and clerical perceptions, motor coordination, and finger and manual dexterity). The GATB is administered by the U.S. Employment Service.

Interest inventories are used to assess individual interests as they relate specifically to career areas. Some of the more common inventories include the following:

- o The Strong-Campbell Vocational Interest Blank (Campbell, 1971) that is frequently used to classify people, according to their stated interests, by job types (e.g., artistic, social, conventional, or realistic) and illustrate the kinds of jobs appropriate to their classification;

Figure 3. Employment Process Model



- o The Self-Directed Search (designed by Holland) utilizes self-reports of occupational interests, activity preferences, competencies, and abilities to provide summary codes that can then be related to Holland's career scales; and
- o Kuder Preference Records and Interest Surveys that include a total of five instruments can be used to determine relationships between interests and 77 occupational scales as well as 29 college major scales (George & Cristiani, 1986).

In addition to aptitude tests and interest inventories, counselors may also provide basic vocational information about a variety of careers. Two of the best known sources for providing relatively accurate career information for a large number of careers are the Dictionary of Occupational Titles (U.S. Department of Labor, 1977) and the Occupational Outlook Handbook (U.S. Department of Labor, 1990). The Dictionary of Occupational Titles contains information on approximately 20,000 jobs arranged by occupational categories, worker traits, and industrial grouping. Each job entry includes a summary of the specific tasks required along with a general description of the occupation. The Occupational Outlook Handbook provides information regarding occupational trends and outlooks for approximately 800 occupations and industries and is published periodically.

Several Army spouse employment programs currently include relatively sophisticated counseling components. The Education and Employment Resource Center (EERC) at Fort Belvoir, Virginia, for instance, uses a number of vocational and skills assessment instruments, such as the Myers-Briggs Type Indicator (MBTI), the Harrington-O'Shea Career Decision Making System, and the Jackson Vocational Interest Survey. In addition, the program at Fort Belvoir includes a number of counseling components designed specifically to help the spouse adapt to the mobile lifestyles of the military.

The counseling/vocational guidance aspects discussed above are of particular relevance to spouses lacking prior vocational experience, those who are interested in expanding their job skills through training, and those who are reentering the labor force after an extended interruption (e.g., after the children are older).

Education and Training Components. Education and training components are critical to persons with less than adequate job skills, those seeking to change job areas, and persons who desire to enhance the skills they already possess. Many employment assistance programs incorporate education and training components in their programs, particularly those designed for hard-to-employ groups with substantial numbers of participants who are not considered job ready. Army bases often have an education center through which training can be provided.

Fort Jackson, for instance, brings faculty and teachers from the community schools and colleges to offer courses through the education center. In addition, this center is equipped with self-paced modules, offering flexible instruction on an individual basis.

Other forms of linkages with existing educational organizations may be a very cost effective mechanism for meeting education and training needs. Most community college programs, for example, are of a relatively short duration (typically ranging from a 9-week course to a 2-year program), making them particularly appropriate for the mobile military lifestyle. Community school systems offer adult classes designed to provide basic educational skills (e.g., the general education development (GED) program, that provides people with a high school equivalency diploma) and specific skills programs (e.g., typing, accounting, computer programming) that could be very beneficial to military spouses employability. These options are typically available at minimal cost and are often to be found relatively close to military installation. And, as illustrated by the Fort Jackson example, a number of these programs will send an instructor to a given facility to make the services available. Associated costs vary for this service and should be examined on a per site basis.

Job Search Assistance Programs. Traditionally, most service providers, including state employment security offices and vocational rehabilitation programs subscribed to a selective placement model. In this model, a job counselor, armed with information about job openings, assumed primary responsibility for a client's job placement. However, research has shown this simplistic expert-based approach to job finding is not very effective (Parnes, Miljus, Spitz, & Associates, 1969). In fact, a growing consensus indicates selective placement fails, in large part, because it takes away client initiative, independence and self-confidence (Zandy & James, 1977). More recently, social scientists and providers of job finding assistance have begun to conceptualize the job finding process in a more holistic fashion by acknowledging that success in finding a job is mediated by a constellation of personal factors that define job search competence (Associates for Research in Behavior, 1973). This re-conceptualization of the job finding process and a recognition of the shortcomings of expert-based job placement services led to the development of "client-centered" job placement approaches (Salmone, 1971).

Job placement models fitting the client-centered definition stress empowering individuals to become more competent job seekers. One relatively simple client-centered approach is the operation of a job bank containing information on current job openings available in the community. A slight modification of the job bank approach incorporates provision of knowledge about job seeking techniques (e.g., resume writing and effective interview techniques) and support during the job search process, in addition to the job leads information provided.

Research on these relatively simple client-centered approaches has shown surprisingly positive results. Ugland (1977), for instance, provided a group of vocational rehabilitation clients with a set of "job seekers' aids" (informal job seeking instruction plus a written job search plan-of-action detailing likely employers and names of personnel directors to contact) and found that they obtained significantly more jobs than a services-as-usual control group.

The group-format job club program, developed by Azrin (1978), is probably the most complex and perhaps the best known client-centered job placement

model. It incorporates learning techniques, including modeling, role playing, social reinforcement, feedback and instruction, as well as mutual help and support group principles usually found in self-help models, to effect behavioral, attitudinal, and motivational change. A large-scale experimental evaluation of the job club (Azrin, 1978) involving almost 1,000 welfare eligible (WIN) clients in five cities, as well as two experimental interventions with older worker populations (Gray & Braddy, 1988), have demonstrated that significantly more job club participants (in some cases three times as many as controls) found jobs. Thus, the job club is apparently an extremely powerful mechanism for helping people obtain jobs.

In summary, then, job search assistance in an employment assistance program may take the form of a traditional job placement model, where a counselor assumes responsibility for locating a job for the client or it may use one of several client-centered approaches in which the counselor's primary role is to provide job search information and to aid clients in their job searches. These self-directed job search strategies vary ranging from extremely simple models (e.g., making a job bank available) to relatively sophisticated models (e.g., Azrin's job club approach). In general, available research (Gray & Braddy, 1988) suggests the job club is among the most effective models for facilitating employment though simpler client-centered methods have also been demonstrated to be effective.

Examples of Employment Assistance Programs

Public Assistance Programs. In the section above, we presented a comprehensive overview of components of employment assistance programs, some or all of which may be found in any given program. At this point, it may be useful to examine several examples of employment assistance programs to illustrate how these components have been incorporated into specific employment assistance programs. A number of these programs have been developed for hard-to-employ populations, for example, the Work Incentive Program (WIN) and Food Stamp Employment and Training programs. Army spouses differ from these groups in several ways. Most importantly, they typically have attained higher education levels. As indicated earlier, all but 11 percent of the wives of enlisted personnel have at least 12 years of high school and 35 percent have obtained at least some post-secondary education. For officers' wives, about 29 percent are college graduates and only 21 percent have had no post-secondary education.

Similarities, however, do exist between Army spouses and these hard-to-employ groups. Conversations with Family Member Employment Assistance Program (FMEAP) staff, for instance, have indicated that many spouses lack marketable skills. Also, the frequent relocation of the Army husband may bring to bear subtle forms of discrimination against the Army spouse. Thus, Army wives may be considered sufficiently similar to other hard-to-employ groups to make the descriptions of these programs potentially useful to the Army's efforts to facilitate spouse employment.

WIN Demonstrations and Program Options. The WIN (Work Incentive) program, developed within the Aid to Families with Dependent Children (AFDC) Program, was designed to help welfare recipients become self-sufficient through

employment, and, since its introduction in 1967, probably has been the most visible manifestation of public efforts to assist welfare recipients in obtaining employment. In FY 1969, its first operational year, WIN provided 218,000 adult welfare recipients with educational, vocational, or other employment services. The basic idea behind the early WIN program was to increase the employability of welfare recipients through a combination of counseling, orientation to the world of work, educational training, and vocational training. By 1985, AFDC agencies in 38 States were operating WIN Employment Assistance programs.

Options available within these programs (General Accounting Office, 1987) include:

- o WIN Demonstrations, that allow each state welfare agency the flexibility to operate programs tailored to local area needs;
- o Community Work Experience Programs (CWEPs), through which participants work off their benefits in unpaid work assignments (i.e., a concept known as workfare);
- o Employment or Job Search Programs that provide job search classes, job development, work orientation, and/or job referrals; and
- o Work Supplementation, where a recipient's wages are subsidized by a welfare grant.

The WIN Demonstrations may incorporate any of the other options, with its unique feature being the flexibility given to states to design programs according to their needs. Because of the comprehensive coverage of program types it affords, the following focuses on WIN demonstration projects only. In general, these demonstrations have incorporated work experience and on-the-job training, vocational skills, remedial and basic education, post-high school training and education, and group job search (e.g., job clubs) to improve participants' employment opportunities. Largely due to the flexibility afforded these programs, several WIN Demonstrations have emerged that have been lauded nationwide as model work initiatives. California's Greater Avenues for Independence (GAIN) program, for example, includes job search assistance for most participants, followed by work experience and training opportunities for those requiring additional assistance. In Massachusetts, the Employment and Training (ET) Choices WIN demonstration has also received national attention. In this program, the client and caseworker jointly develop an employment plan that can include career counseling, education and training, job search assistance, supported work, and work experience, contingent on a given client's needs. About half the participants have received training or education services. In a similar program in Maryland, 31 percent of the participants have received vocational skills training, and 18 percent have received remedial education. And, in Michigan's MOST program, about one third of the clients are engaged in educational activities (General Accounting Office, 1987). The education and training emphasis in these programs illustrates the recognition of the importance of job readiness prior to effective placement of clients in satisfactory

employment, as was illustrated above in the model of employment assistance components.

In addition to the employment assistance aspects, the WIN demonstration offer support services to enable the person to participate in a program's activities. Child care assistance, for instance, is available in 59 of the 61 WIN demonstrations, and funds for transportation in 60 programs. However, as pointed out in a recent General Accounting Office evaluation (1987), barriers to participation may continue because the problem may be the unavailability of the service. Public transportation, for example, does not exist in many rural and some suburban areas. Creative efforts need to be taken to circumvent these problems.

The WIN program offers a wide variety of components designed to facilitate spouse employment and is useful as a model in understanding how these components can be combined to meet individual needs in given locations. Another useful model is found in the literature on programs industries are using to assist spouses of relocated workers to obtain employment. This literature will now be reviewed.

Private Sector Relocation Efforts. Successfully relocating two income families is becoming a more important policy consideration for many companies as societal trends point to as many as 75 percent of all families having two wage earners by 1990 (Collie, 1986). The changing role of women in society and in the family has begun to affect relocation decisions to the extent that in a 1977 relocation survey conducted by Merrill Lynch 22 percent of the respondents indicated that they were resisting transfers because of having working spouses. Corporations have responded to this trend and by 1985 another Merrill Lynch survey found that 30 percent of the companies interviewed reported offering job finding assistance to working spouses (up 22 percent, from 1983) (Gould, 1987). Surveys conducted by Louis Harris and by Catalyst support these findings adding that over 50 percent of the human resource officers and labor leaders surveyed felt that spouse employment assistance would help staff relocation a great deal (Harris survey) and 70 percent of the companies Catalyst surveyed believe that the spouse's job will play a larger role in relocation decisions (as cited on Sekas in 1984).

Although women account for a greater percentage of the work-force and two earner families are becoming the norm, the dual career issue has not had a direct effect on the level of corporate transfer activity to date (Collie, 1986). However there is some evidence that companies that have recently planned the relocation of an entire branch or headquarters have had to face the issue of two income families resisting the move.

When Mobil was scouting sites to relocate to they encountered "stiff resistance" from many of their executives in reaction to the expensive housing and poor schools in New York. This resistance to the move was one of the reasons that Mobil ended up relocating to the Washington, DC, area. Although the reason was not spouse employment opportunities per se this case is a useful demonstration of how much employee considerations are beginning to affect corporate decision-making. According to the Fantus Company, a decade ago only one person in 10 turned down an offer that required a move, but today

one-third to one-half of executives who are asked to make a switch refuse (Dunn, 1985). In an investigation of corporate relocations, the Fantus Company showed that two-income families are increasingly interested in locations with a critical mass of jobs attractive to both the husband and wife. In fact, the advent of two-job couples has even been posed as the impetus for driving relocating companies to major metropolitan areas. Since executive recruitment was also shown to play a key role in the success of a corporate relocation (43 percent of the time) the growing demands and requirements of the dual income family will become increasingly important in personnel policies (Moore, 1987).

Although the executive level recruit is often seen as key to the success of a corporate move, the relocation services are not necessarily limited to executives. In 1986, Royal Insurance moved its headquarters from New York to Charlotte, NC, and offered its entire New York staff, from mail-room to executive office, a relocation package that included spouse employment assistance. All employees were given up to two round trips with their spouses to search for homes, a familiarization trip, assistance with housing, a job seminar and resume and employment search assistance for spouses (Herbert, 1986). (New personnel policies will pay up to \$500.00 for spouse employment services for new hires.) When asked why the company provided these services to the entire staff the response from their personnel officer was that the company looks out for the interests of the employees and took the stand that it was not the employees' fault that the company was moving, so they should not be penalized. This is consistent with the type of companies which have been found to regularly provide family responsive personnel policies.

The Conference Board (1985) constructed a profile of companies that are in fact, becoming family-responsive. In general they;

- are in high tech or scientific fields
- have a relatively young work force
- have a high proportion of female employees
- are located in "progressive" communities
- are non-unionized or largely non-union
- are companies that are close to their founders' traditions
- are companies that make products for, or offer services to the consumer market.

A sample of organizations that have adopted family supportive personnel policies include AT&T, Control Data, Equitable Life Insurance Society, Hewlett-Packard, Honeywell, IBM, 3M, General Electric, Mobil and Citibank (Sekaran, 1986; Collie, 1986; Sekas, 1984; Moore 1987). Almost all relocation companies now include spouse employment assistance in their relocation services (Sekas, 1984; Mathews, 1984; Collie, 1986; Groh, 1985). This provision of employment services is partly due to demand and partly due to the relocation industry is anticipating the service need. The primary function of the relocation industry is in managing real estate, buying homes from relocating employees, providing mortgage financing, assisting with house hunting activities, etc. However, relocation policy has developed to the point where many so called auxiliary or non-economic services are seen as just as necessary as house-hunting to the successful move. Defining spouse

employment assistance as a non-economic service may be a misnomer, since money has played a significant role in relocation decisions and working couples involved in a transfer do not want to sacrifice a portion of their combined income, even if the person being transferred gets a raise (Challenger, 1985).

Despite the perceived need for "non-economic" relocation assistance, the auxiliary services remain an untapped resource provided by most relocation companies. According to a survey of corporate relocation personnel performed by the Runzheimer Corporation, equity funding and title-and-closing services were used by 65 percent of the respondents, whereas the auxiliary services did not generate much activity. Reasons for this lack of use vary from lack of awareness and demand on the part of the employee, to companies providing their own service, to lack of program specialists in the industry to develop the service. Regardless of the reasons for why the additional services are not being used most companies indicated that they expected a relocation company to provide expertise in non-home-buying services.

Spouse employment relocation services range from intensive job counseling and search assistance to preparation of resumes. Companies have offered extended house-hunting trips, added an additional trip for job hunting purposes, paid employment agency fees, provided counseling on job-search skills and resume preparation, provided informal contacts with other employers in the area, reimbursed all or part of the spouse's lost salary during a job search, reimbursed travel expenses for a commuting couple, and recently several companies have formed networks for circulating resumes of spouses relocating to the area. These networks can provide a way to "share the wealth" in a city or community while simultaneously assisting in the recruiting process (Mathews, 1984). In Ohio a network was set up by the Director of recruiting for the Mead Corporation. This network now includes NCR, Proctor & Gamble and 35 other corporations as well as 45 municipalities, universities and other organizations. The director of this network estimates they have achieved a 92 percent success rate since it was established seven years ago. The group meets once a month over lunch to discuss openings and pass around resumes (Gould, 1987).

What this variety of employment assistance services points out is that there is no single type of assistance that fits all situations. There is a very different type of assistance required by the spouse pursuing a career compared with a spouse looking for a fairly traditional and readily available position in a new location. However the distinction between employment and career goals becomes blurred when spouses currently holding jobs are in the process of preparing for advancement either through education, technical skill development or promotion (Sekaran, 1986). This is an important consideration to take into account when considering the Army spouse, who typically cannot stay in one organization or area long enough to build on experience or develop new skills. (By 15 years of shared military life 30.8 percent of enlisted families had moved 7-9 times, and 58 percent of the officer families had moved 10 or more times (Griffith et al., 1986). Repeated moves hamper non-skilled or semi-skilled spouses from getting off the entry level rung of the employment ladder. This makes the spouse relocation assistance job for the Army more challenging, since a responsive program would need to provide a wide

range of services to accommodate everything from training, and education to career development.

Although the response by business and the Army to spouse employment issues has been limited in the past, due to such factors as labor surplus and social constraints, the future will likely require a different response. The growing percentage of working couples, the increasing need for two incomes, and the declining labor supply will pose recruitment difficulties for both the business world and the Army. To the extent that the private sector and the Army will be competing for this dwindling labor resource, private sector relocation efforts may provide useful lessons on spouse relation issues.

The Impact of Technology on Spouse Employment

To this point, we have focused primarily on work force changes resulting from increasing members of women in (or desiring to enter) the labor force. There are, however, simultaneous changes occurring in the actual work force skills needed. Changes in requirements are likely to alter considerably the requisite skills needed to obtain employment. The Army should monitor these changes to ensure its training and employment assistance programs remain maximally responsive to work force needs. Accordingly, the impacts of technology on job requirements is reviewed below.

Technological change in the work-place is becoming characteristic of progress in most job settings in the 1980s. For example, few occupations have not yet been touched in some way by innovations in the microelectronic processing or storage/retrieval of data. A number of recent reports document aspects of these changes as they affect those employed or seeking work. The National Commission for Employment Policy (1986) has stated that the U.S. is increasingly and irreversibly being computerized, with significant implications for the types of skills needed for productive employment. In particular, several investigations (Hunt & Hunt 1986; Office of Technology Assessment 1985) address the impacts of technology on clerical occupations amidst fears of office automation. While much of the literature can only speculate on long-term interactions between technological change and the skill levels of available human resource pools, it seems clear that public policy and programs concerning employment opportunities will need to remain responsive to swiftly changing labor market demands.

Accordingly, employment assistance program;s and training systems to provide skills for civilian jobs must recognize these factors. For example, while training must be sufficiently technical and job-specific to ensure adequate employability competencies, over-specialization should be avoided if it is at the expense of more generalizable basic skills. For spouses of military enlistees in particular, because of the potential for relocation, "portability" of skills is important. Training programs need therefore to be designed in light of available occupational information on national and regional labor markets.

Existing data series on occupational employment, supplemented by additional information on skills needs associated with new technologies, can usefully complement military human resources planning for Army spouses. A

cost-effective, three-phased approach to interpreting occupational data for training purposes, originally designed for use in education and training planning in the public sector, can be adapted to assist in improving employment awareness and training programs for military spouses. The first phase is to describe adequately their current employment patterns (qualifications, occupations, inter-occupational mobility), and indicate where the process of identifying and preparing for occupational employment can be strengthened. The second phase is to develop and pilot test a system for using (and supplementing through additional periodic surveys) existing occupational data to identify occupational employment opportunities and skill needs by geographical location and employment type. The final phase is to identify and address specific training needs in light of regional labor market information. The results of such an approach would be a systematic methodology for maintaining responsiveness to changing employment patterns, both in terms of discrete job opportunities and changing job skills requirements.

The Effects of Spouse Employment

Introduction

In the previous section, we established background factors likely to affect a spouse's employment opportunities. In this section, we will discuss the effects of spouse employment (as found on the right-hand side of Figure 2). We begin this section with a discussion of the effects of employment on a woman's personal well-being as well as on her husband and children, all of which are considered to be related to readiness and retention, as depicted in the conceptual model. Economic factors associated with a spouse's employment are then discussed. We also include sections specifically on the effects of a spouse's employment on her husband's career and commitment to military life, as these factors probably have the most direct relationship to readiness and retention factors.

The Effects of Employment on Married Women's Psychological Well-Being

Kessler and McRae (1982) examined five indicators of psychological distress among employed women as compared to housewives. Their analysis controlled for a number of factors including husband's income and the number and ages of children present in the home. These authors report that "all of the distress indicators show employed wives to have significantly lower distress scores than homemakers." Baruch and Barnett (1986) cite a large body of literature showing that employment has positive psychological consequences for women, as a primary source of well-being and also as a buffer against stress experienced in other roles. Ferree (1976) investigated the psychological satisfaction derived from employment among working-class women. These women have been regarded as reluctant participants, working solely as a result of economic necessity, in contrast to professional women whose motivation for working has been assumed to be largely self-satisfaction. Ferree interviewed 135 working-class women who were married and had children. Their employment was as clerks, typists, factory workers, waitresses, maids, nurses and health paraprofessionals, saleswomen and cashiers. Despite the strain of carrying a double role, these women perceived themselves to be happier and better off than the full-time housewife. Ferree asserts that the dissatisfaction with housework can be traced to the low self-esteem, social isolation, and powerlessness it promotes.

Nye (1974) reviews four investigations of psychological well-being among employed wives and mothers. In three of the investigations, results showed greater well-being among the employed women. These investigations also showed employed women's physical health to be better than that of the full-time housewives. While the fourth investigation reviewed indicated differences in favor of the nonemployed, the women in this investigation were older, post-parental women mainly married to blue-collar men. Thus, failure to find a positive employment effect may be explained by their work outside the home interfaced with what they considered appropriate roles for wives and homemakers, thus creating stress.

In general, it should be noted that comparisons between well-being of employed and nonemployed groups can not be interpreted as causal

relationships. Warr and Perry (1982) further argue that these general comparisons are not useful, and assert that future research must examine more precise hypotheses. They provide a conceptual framework and suggest certain approaches to sampling and other methodological issues that should lead to a clearer understanding of the complex relationships among psychological factors and employment for women of various backgrounds.

The Effects of Dual-Employment on Marriage

The effects of women's employment on their marital relationships, particularly marital satisfaction and the distribution of housework, child care, and decision-making power, have been examined by numerous researchers (Piotrkowski & Crits-Cristoph, 1981; Nye, 1974; Booth et al., 1984; Pleck & Staines, 1982). Nieva (1985), based on a review of many investigations, found that employed wives do not get much more household help from their husbands than wives who do not work outside the home. Instead, employed wives reduce the amount of time they spent on housework. Another investigation (Yogev, 1981) revealed that professional women perceive housework and child care as their own responsibilities and spend much more time at these tasks than their husbands and that most of these women were relatively satisfied with the division of labor. Model (1981), in an investigation of 650 women, found that husbands of working wives are unlikely to contribute much to domestic work and that when they do, they view themselves as operating in "female territory." She reported that, although attitudes, employment status, life cycle status, and income all influence the husband's housework efforts, women still carry a disproportionate share of household tasks. She found some evidence that the greater the difference in earnings between the husband and wife, the less the husband contributes to housework. Bahr (1974), on the other hand, found that, although employed wives tended to remain primarily responsible for household tasks, their husbands performed significantly more of them than did the husbands of nonemployed wives. He found this trend to be more pronounced for wives in the professions than for those in less prestigious occupations. He also stated that the division of labor appears to be more balanced during the early years of marriage, suggesting that a woman's employment may produce little change in her husband's involvement in household tasks if they have adolescent children to perform the tasks.

Thus, women apparently remain primarily responsible for household tasks, although investigations report differing contributions to housework and child care by husbands. It should be pointed out, however, that the available data from these investigations are relatively old. Considering the rapid increases in the numbers of women who are working, combined with the possibility of egalitarian attitudes emerging, it may be that there is trend towards less demarcation of household duties. However, based on the empirical investigations reviewed to date, one may conclude a spouse's employment does not significantly increase the household responsibilities of her husband. Thus, one may assume, based on available evidence, that military personnel with employed spouses are no more encumbered by household tasks than their counterparts whose wives do not work. Thus, in terms of readiness, it may be that the household responsibilities of members with working spouses are not much more limiting than for members with employed wives.

The Effects of Spouse Employment on the Distribution of Power

Evidence also suggests employment may contribute to a woman's power in the marriage. Nieva (1985) cites several authors who have found that employment and its increased financial independence give wives more power within the marriage and greater influence in decision-making. She reports that dual-earner couples are more likely to share decisions about major purchases and child rearing. Bahr (1974) also concluded that working wives have greater power, but added that their power is contingent on other factors and that more powerful wives are more likely to be employed. Hypothetically, one might assume increased power in the home would lead to increased self sufficiency for employed Army wives. There are possible implications for Army families if this, in fact, does happen. For example, a spouse who is more self-sufficient should be better prepared to cope if her husband is deployed.

The Effects of Employment on the Marital Relationship

There is a large body of literature on the relationship of women's employment and marital stability, marital satisfaction, and other aspects of the marital relationship. Booth et al. (1984), for example, investigated the effects of wives' employment on marital disagreement, marital happiness, marital instability, and marital problems. These authors concluded that the wife's income, in combination with spousal disagreement and low marital satisfaction, leads to the erosion of marital stability and may lower the threshold where divorce is considered. They found that, overall, a wife's employment increases marital instability and that the size of the effect is "substantial." Nye (1974), on the other hand, found only small differences in the marital relationships of employed versus nonemployed wives. His finding is based on a review of research conducted between 1949 and 1973. He reports that early investigations found no differences; later investigations revealed small increases in marital instability. In general, however, less than four percent of the variance in marital satisfaction and other measures of the marital relationship examined in those investigations could be explained by the employment status of the wife. Most of the investigations found these differences among lower socioeconomic status groups with virtually no difference in middle class couples. Similarly, Locksley (1980) found no evidence of any effect on wives' employment on marital adjustment and companionship. She concludes that the absence of effects suggests that the extensive controversy over wives' increasing labor force participation has resulted from some unwarranted assumptions about the impact of wives' working on marital adjustment.

The Effects of Maternal Employment on Children

Increasing labor force participation by mothers over the past two decades has given rise to concerns over the impact of this trend on infants and small children. The employment of mothers outside the home can no longer be considered non-traditional. By March 1983, over half (56.1 percent) of mothers with children less than 3 years old were employed outside the home (Waldman, 1983, cited from Easterbrooks and Goldberg, 1985). In comparison, considerably fewer Army spouses with children under five years of age are employed; 30 percent of Army enlisted families and 28.7 percent of officers

families with children under 5 years old had employed mothers (Griffith et al., 1986). Thus, considerably fewer Army mothers with young children are working when compared with their civilian counterparts. To investigate some of the implications of current and likely future employment patterns, we will now review the literature that examines maternal employment.

Hoffman (1979, 1980) reviewed the literature on the impact of employment on children and concludes that most of the investigations have not demonstrated adverse effects for infants and young children placed in quality day care environments. Later investigations have supported this conclusion as well. Specifically, quality day care has been found to have no negative effects on a child's intellectual development, emotional adjustment, or relationship with its mother. Furthermore, quality day care may have a positive impact on children from disadvantaged homes (Anderson-Kuhlman, & Paludi, 1986; Etaugh, 1984; and Rutter, 1981).

Maternal employment appears to have a positive influence on adolescents, particularly daughters. In general maternal employment is associated with less traditional sex-role concepts and higher evaluation of female competence (Hoffman, 1974). However, some evidence has suggested that maternal employment may strain the father-son relationship among lower class families, and inconclusive evidence indicates that it may lower the academic performance of middle class boys (Hoffman, 1974). Although the link between maternal employment and these outcomes is not understood, further research appears warranted.

A number of researchers note that there is considerable room for further research. Hoffman (1974) concluded that the failure of investigations to find detrimental effects resulting from maternal employment did not mean that there were no effects. Rather, a better understanding of the child's needs and further research on how a combination of variables affect the family situation as a result of maternal employment is needed. This view is supported in other assessments of the research. In general, other aspects of the maternal employment situation are likely to be more important to child outcomes than simply the fact that the mother is working. A sampling of other variables considered to be relevant include:

- o Variations in stability of life circumstances not related to mother's work;
- o Variations in employment characteristics;
- o Number of hours worked per week;
- o Length of employment;
- o Economic situation;
- o Age and work history of the mother;
- o Availability of quality day care services;

- o Presence of family-oriented occupational policies;
- o Marital status;
- o Reasons for working;
- o Commitment to work;
- o Full versus part time employment;
- o What is happening to the child when the mother is at work; and
- o What is the quality of the mother-child interaction when the mother is with the child.

(Easterbrooks & Goldberg, 1985; Heyns & Catsambis, 1986; Anderson-Kulman & Paludi, 1986; Hoffman, 1974).

Thus, the influence of maternal employment should be seen as multidimensional and interactive with several variables. Job and work satisfaction, for example, have been found to be correlated with the effects a mother's work outside the home may have on the family. Other investigations have also found job satisfaction to be positively related to family well-being. For example, job satisfaction has been found to be positively related to the degree of cohesiveness in the families of working mothers. In addition, greater job satisfaction was associated with lower levels of role strain among working mothers. Thus, enhancing the level of satisfaction with one's work may be expected to promote positive coping among working mothers and their families. Stress among working mothers may also be diminished by the availability of high quality day care services and/or the presence of family-oriented occupational policies (Perry, 1982, cited in Anderson-Kulman, & Paludi, 1986).

When negative effects of a mother's employment do appear, they are often attributable to an interaction of the employment with other variables. General findings concur, for example, that maternal role satisfaction and attitudes, whether it be as a working or non-working mother, are linked more directly to child outcomes than is mother's work status per se. A mother's dissatisfaction with her role has been found to be associated with negative effects for children. Farree (1976) found that the most poorly adjusted children in his sample were those who had mothers who wanted to work but did not. Lerner and Galambos (1985) analyzed the relationship between mother's role satisfaction, mother-child interaction and child development using the New York Longitudinal Study. They found that highly dissatisfied mothers have high levels of rejection behavior and more difficult children (although this early difficulty was not found to be significantly directly related to later difficulty). The mothers who were highly satisfied with their roles displayed higher levels of warmth and acceptance and no significant difficulties with their children.

Cumulative labor force experience of mothers is not uniformly damaging to achievement. Rather, it appears that erratic job histories or intermittent

employment are more detrimental (Heynes & Catsambis, 1986). Regular maternal employment was not found to be related to insecure attachments to either mother or father for boys or girls (Easterbrooks & Goldberg, 1985). Thus, employment patterns that have the most consistent positive effects on achievement appear to be ones in which the mothers experiences overtime increasing work commitment and ones with stable part time employment, rather than either decreasing or sporadic employment (Heynes & Catsambis, 1986).

Since the national trend is toward increased numbers of employed mothers, and existing research indicate does not adverse impacts on children of employed mothers in quality day care, attending to issues of improving employment opportunities for Army mothers and providing quality day care becomes important for retention and readiness concerns, since addressing these family issues will enhance the environment for family cohesiveness, children's achievement, and spouse/parent well being.

The Effects of Wives' Employment on Their Husbands' Careers

Greenhaus and Kopelman (1981) surveyed 229 employed male college graduates of various ages and found that the wife's employment status was not related to the presence of work-family conflict in the household. They did, however, find that men whose wives were employed in managerial or professional positions experienced more intense work-family conflict than those whose wives were employed in other occupations. They speculated that women in high-level positions may make greater demands on their husbands for participation in household tasks and child rearing. This notion is somewhat supported by other research (Model, 1981; Bahr, 1974); however, most investigations have found that participation in home and family activities is only slightly greater among husbands of women with high-level employment than among husbands of women in lower-level positions. Pleck and Staines (1982) found that wives' employment status affects husbands' work schedules in a positive way. That is, husbands of employed women are more likely to work on a conventional. weekdays only schedule and they average a shorter work week than husbands of nonemployed women. The wife's employment status did not affect the husband's level of work-family conflict. These authors have also found that spouses tend to work matching schedules but that when both spouses have non-day or variable shift work schedules, the husbands' reports of detrimental effects from their work schedules are significantly intensified. This finding may be of particular relevance to the Army and suggests that it is important to help find employment with conventional weekday hours for those wives who seek work.

At the professional level, job-seeking and transfers become more complicated. Nieva (1985) cites an investigation by Holmstrom (1971) showing that in dual-career families the professional careers of both spouses are interdependent: choice of location is affected by the spouse. However, wives tend to make greater accommodations to their husbands' career needs. Nieva also cites an investigation by Bryson, Bryson, and Johnson (1978) that indicated a majority of wives would accept positions in another town only if their husbands also received satisfactory offers, whereas the reverse was not true. This effect may be minimal among men in the military but is nevertheless worthy of further exploration. Men's careers may be influenced by their wives' employment in yet another way. Specifically the phenomenon of

the "two person career" is one in which the wife devotes considerable time and effort to providing support services that help to advance the husband's career. This has been a traditional pattern among clergy, foreign service employees, corporate executives, and the military, especially officers. As more and more wives participate in the work force, these support services will become increasingly less available to their husbands.

The Effects of Spouse Employment on Retention

The link between spouse employment and retention is not well established at the present time. Considerable evidence does indicate spouse opinion is a significant factor in the member's decision to reenlist (Bowen, in preparation; Lund, 1978; Szoc, 1982; Van Vranken, Jellen, Knudsen, Marlowe, & Segal, 1984; Hunter, 1982). To the degree that spouse employment and its related issues of child care, scheduling, separation from member, and relocation affect marital/family satisfaction and satisfaction with military life, then spouse employment has the potential to affect retention, at least indirectly. A survey of relocated Army families, for example, indicated that a source of dissatisfaction with the move was the Army's perceived failure to provide general information about job opportunities for wives (Marsh, 1976). While the Army has taken steps to provide this information, recent conversations with Family Service Center (FSC) Family Member Employment Assistance Program counselors indicate spouses are still dissatisfied with their ability to locate jobs, which they contend affects retention. As one counselor phrased it, if the wife is unhappy at home because she does not have a job, the member-husband is likely to consider this when it is time to reenlist. Thus, failure to provide adequate spouse employment assistance could have an impact on member retention. As mentioned earlier, employed spouses with independent incomes play a larger role in family decision-making processes (Nieva, 1985). If this is true, then spouse employment may also affect retention through the increased power within the family that it provides. Some research indicates adverse spouse employment may have negative affects on retention. An investigation of Navy junior officers and spouses indicated that employed wives were less supportive of their husband's careers than those who did not work outside the home (Mohr, Holzbach, & Morrison, 1981). Wives who were teachers or Navy officers were less positive about their husband's remaining in the military. Other research further indicates problems for dual-career military couples, probably as a result of the unique sets of problems they face. First, the military is not able to guarantee that the couple will always be assigned to the same location. Work hours may be inconvenient for maintaining a viable marital and family relationship. Child-care becomes problematic since the wife who has, in the past, filled the child care role may not be available consistently. The military spouse has traditionally played a social role in military protocol. In a dual military couple (as well as in military/nonmilitary couples), the wife may not be able to perform that role and still progress in her career. Evidence indicates impacts of the dual career military marriage on retention. Rahia (1986) found that dual military couples had less positive retention intentions than any other group. The investigation also found that the dual military couple's ties to community support networks are apt to be weak because of work hours. In a pilot investigation of Air Force dual careerists, Williams (1976) found that most couples had decided not to have children. In summary, the direct

effect of spouse employment or retention at this point remains unclear. However, we may conclude that spouses' opinions do have considerable impact on their husband's retention decisions. The wife's satisfaction with her employment options presumably influences her opinions. Available evidence indicates this influence could either be positive or negative. Dual career military couples apparently have the lowest retention prognosis when effects are limited to spouse employment issues only.

Economic theory makes a number of predictions on the spouse's influence on retention. These predictions will now be reviewed.

An Economic Theory of the Spouse's Influence on Retention

A simple economic model of retention behavior states that individuals choose careers based on the utility derived from the pecuniary and nonpecuniary returns from each occupation. For two wage earner families, spouse earnings also influences the military/civilian career choice to the extent that a differential exists between expected spouse earnings if the husband remains in the military versus expected spouse earnings if the husband goes to the civilian sector.

Smith and Goon (1987) examined the effects of spouse employment on retention behavior in the U.S. Air Force. They hypothesize the spouses' earning differential (expected earnings if husband remains in military less expected earnings if husband goes to civilian sector) to be negative. This may be true if employers are geographically isolated in such a way that military wives receive lower wages, are underemployed or have fewer job opportunities than their civilian counterparts.

Assuming a negative differential, an officer whose spouse is in the labor force should be less likely to stay in the Air Force. Earnings differentials are expected to be less negative if the spouse is employed by the federal government; more negative for individuals with a high degree of specific human capital (i.e., some professionals); and smaller for part-time than for full-time workers. But to the extent that federal jobs reserved for military spouses or spouse employment programs reduce this wage differential the military-civilian earnings differential may be zero or positive.

The Air Force has Family Support Centers on approximately one-third of bases worldwide. These programs should reduce the military/civilian wage differential by reducing unemployment duration and the earnings gain by going to the civilian sector; therefore retention should be higher as a result of these programs. However, to the extent that these programs increase the probability of labor force participation, they may reduce retention if members with spouses in the labor force are less likely to continue in their military careers than members with wives who are not in the labor force. The overall effect of these programs is therefore theoretically indeterminate.

Smith and Goon (1987) used the 1985 DoD Member Survey and personnel files to examine spouse labor force status and the effects of spouse employment on retention of Air Force Officers. The following reduced form labor supply model was estimated for officers' wives using OLS:

LFP = f(MKT. WAGE, OTHER FAMILY INCOME, LABOR MKT DEMAND, RESERVATION WAGE)

In general the market wage and labor market demand variables are expected to have a positive impact on labor force participation and the reservation wage and family income variables are expected to have a negative effect. These sign expectations are generally upheld in the estimation; however, few variables are significant (Smith & Goon, 1987).

A reduced form retention model is estimated to examine the relationship between spouse employment status and retention. Exogenous variables include YOS dummies, relative grade, occupation dummies, education, demographic characteristics, a location dummy and spouse employment. YOS and relative grade are included to control for the effects of differences in member's potential earnings. This model was estimated for the full sample as well as for officers with less than 11 years of experience. Spouse employment has a negative (but not significant) effect on retention as anticipated.

In summary, Smith and Goon developed a simple theoretical model of the relationship between retention and spouse employment which shows that the impact of spouse employment on retention depends on the earnings differential. A reduced form retention model and a reduced form labor supply model are estimated. The major findings are that officers with wives in the labor force have lower retention rates and this is more pronounced for younger officers.

This research provides a useful starting point for linking spouse employment to retention in the ARI Family Research Program. The following extensions would be useful:

1. Extend analysis to include enlisted as well as officers
2. Include a distance factor in the labor supply model
3. Control for occupation (professional/non-professional or specific versus general human capital) in the labor supply model
4. Test the relationship between the retention decision and spouse employment status for simultaneity
5. Develop and estimate a structural model for policy analysis so that the benefits or costs of spouse employment programs can be estimated directly (i.e., the elasticity of retention with respect to spouse employment programs).

References

- Anderson-Kuhlman, R. E., & Paludi, M. A. (1986). Working mothers and the family context: Predicting positive coping. Journal of Vocational Behavior, 28, 241-253.
- Associates for Research on Behavior. (1973). Transitions to work: Contributions of the job readiness posture (Final report). Philadelphia: Associates for Research in Behavior.
- Avioli, P. S. (1985). The labor-force participation of married mothers of infants. Journal of Marriage and the Family, pp. 739-745.
- Azrin, N. H., Philip, R. A., Barch, L., & Besalel-Azin, V. (1978). The job-finding club as a method of obtaining employment for welfare eligible clients: Demonstration, evaluation, and counselor training. U.S. Department of Labor, Report No. DLIMA51-17-7604). Washington, DC: Department of Labor.
- Bahr, S. J. (1974). Effects on power and division of labor in the family. In L. W. Hoffman & F. I. Nye (Eds.), Working mothers, pp. 167-185. San Francisco, CA: Jossey-Bass, Inc.
- Baruch, G. K., & Barnett, R. (1986). Role quality, multiple role involvement, and psychological well being in midlife women. Journal of Personality and Social Psychology 51, 578-585.
- Becker, G. S. (1965). A theory of the allocation of time. The Economic Journal, 75, 493-517.
- Becker, G. S. (1975)). Human capital: A theoretical and empirical analysis, with special reference to education (2nd Ed.). Chicago: University of Chicago Press.
- Becker, G. S. (1985). Human capital, effort, and the sexual division of labor. Journal of Labor Economics, 3 (1, Pt.2), 3-58.
- Beller, A. H. (1982). The impact of equal opportunity policy on sex differentials in earnings and occupations. American Economic Review, 72, 171-175.
- Bielby, W. T., & Baron, J. N. (1986). Men and women at work: Sex segregation and statistical discrimination. American Journal of Sociology 91, 759-799.
- Booth, A., Johnson, R. J., White, L., & Edwards, J. N. (1984). Women outside employment, and marital instability. American Journal of Sociology 90, 567-583.

- Bowen, G. L. (in preparation). A framework for research on career decisions and the military family. In G. M. Croan, G. L. Bowen, G. Farkas, A. Glickman, D. K. Orthner, G. Nogami, P. A. Gade, & T. R. Tremble, Career decision-making and the military family: Towards a comprehensive model (Research Note 90-17). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Bryson, R., Bryson, J. E., & Johnson, M. F. (1978). Family size, satisfaction, and productivity in dual-career couples. Psychology of Women Quarterly, 3, 67-77.
- Campbell, D. P. (1971). Handbook for the Strong Vocational Interest Blank. Stanford, CA: Stanford University Press.
- Cardwell, L. A., & Rosenzweig, M. R. (1980). Economic mobility, monopsonistic discrimination and sex differences in wages. Southern Economic Journal p. 1102.
- Catalyst (1983). Human factors in relocation: Practices and attitudes from the corporate and employer points of view. New York: Author.
- Challenger, J. F. (1985, July/August). Moving two careers: Relocation need not derail a spouse's career. Management World, 14, 38-39.
- Chief of Staff, U.S. Army. (1983). White paper 1983: The Army family. Washington, DC: Department of the Army.
- Collie, H. C. (1986, April). Corporate relocation: Changing with the times. Personnel Administration, 101-103.
- Corcoran, M., & Duncan, G. J. (1979). Work history, labor force attachment, and earnings differences between races and sexes. Journal of Human Resources, 14, 3-20.
- Corcoran, M., Duncan, G. J., & Ponza, M. (1983). A longitudinal analysis of white women's wages. Journal of Human Resources, 18, 497-520.
- Cox, D. (1984). Panel estimates of the effects of career interruptions on the earnings of women. Economic Inquiry, 22, 386-403.
- Crouter, A. C. (1984). Spillover from family to work: The neglected side of the work family interface. Human Relations, 37, (2), 425-442.
- Defense Manpower Data Center. (1976). Description of officers and enlisted personnel in the U.S. Armed Forces: 1985--A report based on the 1985 DoD Survey of Officers and Enlisted Personnel. Arlington, VA: Author.
- Dunn, D. H. (Ed.). (1985, February 4). Cushioning the shock of job relocation. Business Weekly, 89-90.

- Easterbrook, M. A., & Goldbery, W. A. (1983). Effects of early maternal employment on toddlers, mothers and fathers. Developmental Psychology, 21, 774-783.
- England, P. (1982). The failure of human capital theory to explain occupational sex segregation. Journal of Human Resources, 17, 358-379.
- England, P., & Farkas, G. (1986). The employment relationship. In Households, employment, and gender, pp. 123-145. New York: Aldine Publishing Company.
- Etaugh, C. (1984). Effect of maternal employment on children: An updated review. Paper presented at the Annual Meeting of the Midwestern Psychological Association, Chicago, IL.
- Ferree, M. M. (1976). Working-class jobs: Housework and paid work as sources of satisfaction. Social Problems, 23, 429-441.
- Friedan, B. (1981). The quiet movement of American men. In The second stage (pp. 125-161). New York, New York: Summit Books.
- General Accounting Office. (1971). Work and welfare: Current AFDC work programs and implications for federal policy. Washington, DC: U.S. General Accounting Office.
- George, R. L., & Cristiani, T. S. (1986). Counseling: Theory and practice. Englewood Cliff, NJ: Prentice-Hall, Inc.
- Gerstel, N., & Gross, H. E. (1982). Commuter marriages: A review. In Alternatives to traditional family living, pp. 72-91. New York: The Haworth Press.
- Glacel, B. P. (1986). Army research plan: Economic and spouse identity needs for spouse employment (Contract No. DAAG29-81-D0100). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Glazer, N. Y. (1984). Paid and unpaid work: Contradictions in American women's lives today. In K. M. Borman, D. Quarm, & S. Gideonse (Eds.), Women in the workplace: Effects on families (pp. 169-186). Norwood, NJ: Ablex Publishing Corporation.
- Gordon, H. A., & Kammeyer, K. C. W. (1980). The gainful employment of women with small children. Journal of Marriage and the Family, pp. 327-336.
- Gould, C. (1987, February 27). A helping hand for the 'trailing' spouse. The New York Times.
- Gray, D. O., & Braddy, B. A. (1988). Experimental social innovation and client-centered job-seeking programs. American Journal of Community Psychology, 16, 325-344.

- Greenhaus, J. H., & Kopelman, R. E. (1981). Conflict between work and nonwork roles: Implications for the career planning process. Human Resource Planning, 4, 1-10.
- Griffith, J. D., Doering, Z. D., & Mahoney, B. S. (1986). Description of Spouse of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985-- A Report Based on the 1985 DoD Surveys of Officer and Enlisted Personnel and Military Spouses (Contract Number MDA-903-85-028). Washington, DC: Office of the Assistant Secretary of Defense (Force Management and Personnel).
- Griffith, J. D., Lavange, L. M., Gabel, T. J., Doering, Z. D., & Mahoney, B. S. (1986). Description of spouses of officers and enlisted personnel in the U.S. Armed Forces: 1985 (Volume 1). Arlington, VA: Defense Manpower Data Center.
- Groh, K. F. (1985, August). Relocation. How do couples choose third party relocation firms? Personnel Journal, 110-116.
- Hall, R. E. (1982). The importance of lifetime jobs in the U.S. Economy. American Economic Review, 72, 716-724.
- Hayghe, H. (1983). Married couples: Work and income patterns. Monthly Labor Review, pp. 26-29.
- Hayghe, H. (1986). Military and civilian wives: Update on the labor force gap. Monthly Labor Review, pp. 31-33.
- Heynes, B., & Catsambis, S. (1986, July). Mother's employment and children's achievement: A critique. Sociology of Education, 59, 140-151.
- Hoffman, L. W. (1974). Effects on child. In L. W. Hoffman & F. I. Nye (Eds.), Working mothers (pp. 126-166). San Francisco, CA: Jossey-Bass, Inc.
- Hoffman, L. W. (1979, October). Maternal employment: 1977. American Psychologist, 34, 859-865.
- Hoffman, L. W. (1980). The effects of maternal employment on the academic attitudes and performance of school-age children. School Psychology Review, 9, 319-335.
- Holmstrom, L. (1971). Career patterns of married couples. In A. Theodore (Ed.), The professional woman. Cambridge, MA: Schenkman.
- Huber, J., & Spitze, G. (1981). Wives' employment, household behaviors, and sex role attitudes. Social Forces, 60, 150-169.
- Hunt, H. A., & Hunt, T. L. (1986). Clerical employment and technologies change: A review of recent trends and projections. Washington, DC: National Commission for Employment Policy.

- Hunter, E. G. (1982). Families under the flag: A review of military family literature. New York: Praeger.
- Keith, R. (1976). A study of self-help employment seeking preparation and activity of vocational rehabilitation clients. Unpublished doctoral dissertation, Michigan State University, East Lansing, MI.
- Kessler, R. C., & McRae, J. A. (1982). The effect of wives' employment on the mental health of married men and women. American Sociological Review, 47, 216-227.
- Lerner, J. V., & Galambos, N. L. (1985). Child development and family change: The influence of maternal employment on infants and toddlers. Advances in Infancy Research, 4, 39-86.
- Lillydahl, J. H., & Singell, L. D. (1985). The spatial variation in unemployment and labor force participation rates of male and female workers, Regional Studies, 1985, 459-469.
- Lloyd, C. B., & Niemi, B. (1978). Sex differences in labor supply elasticity: The implications of sectoral shifts in demand. Journal of the American Economic Association, 68/2, 78.
- Locksley, A. (1980, May). The effects of wives employment on marital adjustment and companionship. Journal of Marriage and the Family, 337-346.
- Long, L. H. (1974). Women's labor force participation and the residential mobility of families. Social Forces, 52, 342-348.
- Lopata, H. Z., Barnewsolt, D., & Norr, K. (1980). Dual-career couples. San Francisco, CA: Sage Publications.
- Lund, D. A. (1978). Junior officer retention in the modern volunteer Army: Who leaves and who stays? In E. J. Hunter & D. S. Nice (Eds.), Military families: Adaptation to change. New York: Praeger.
- Madden, J. F. (1975). Discrimination--A manifestation of male market power? in C. G. Lloyd (Ed.), Sex discrimination, and the division of labor (pp. 146-167). New York: Columbia University Press.
- Madden, J. F. (1977). A spatial theory of sex discrimination. Journal of Regional Science, 17, 369.
- Madden, J. F. (1977). The persistence of pay differentials. In Women in Work, pp. 76-77.
- Madden, J. F. (1981). Why women work closer to home. Urban Studies, 18, 181-194.

- Madden, J. F., & White, M. J. (1980). Special implications of increases in the female labor force: A theoretical and empirical synthesis. Land Economics, 56, No. 4.
- Marsh, R. M. (1976). Mobility in the military: Its effect upon the family system. In H. I. McCubbin, B. B. Dahl, & E. J. Huncer (Eds.) Families in the military system. Beverly Hills: Sage.
- Matthews, P. A. (1984, April). The changing work force: Dual career couples and relocation. Personnel Administration, 55-62.
- Maxwell, N. L., & Ronald J., & D'Amico, R. J. (1986). Employment and wage effects of involuntary job separation: Male female differences. AEA Papers and Proceedings, 76, 2, 373-377.
- Military Family Resource Center. (1984). Review of military family research and literature--Annotated bibliography. Arlington, VA: Author.
- Mincer, J. (1962). Labor force participation of married women: A study of labor supply. In NBER, Aspects of Labor Economics. Princeton, NJ: Princeton University Press.
- Mincer, J. & Ofek, H. (1982). Interrupted work careers: Depreciation and restoration of human capital. The Journal of Human Resources, 17, 3-24.
- Mincer, J., & Polachek, S. (1974). Family investments in human capital: Earnings of women. Journal of Political Economy, 82 (Pt. 2), S76-S108.
- Model, S. (1981). Housework by husbands. Journal of Family Issues, 2, 225-237.
- Mohr, D. A., Holzbach, R. L., & Morrison, R. F. (1981). Surface warfare junior officers' retention: Spouse's influence on career decisions. San Diego, CA: U.S. Navy Personnel and Development Center.
- Moore, M. (1987, October 22). Commandeers barred from interfering in military spouses' careers. The Washington Post, A6.
- Mortimer, J. T., & Sorensen, G. (1984). Men, women, work, and family. In K. M. Borman, D. Quarm, & S. Gideonse (Eds.), Women in the workplace: effects on families (pp. 139-167). Norwood, NJ: Ablex Publishing Corporation.
- National Commission for Employment Policy. (1986). Computers in the workplace: Selected issues. Washington, DC: Author.
- National Military Wives Association. (1982). Military spouse and family issues (Final Report). Washington, DC: National Military Wives Association.

- Nieva, V. F. (1979, September). The family's impact on job-related attitudes of women and men: Report of work in progress. Paper presented at the Annual Convention of the American Psychological Association, New York.
- Nieva, V. F. (1985). Work and family linkages. In L. Larwood, A. H. Stromburg, & B. A. Gutek (Eds.), Women and work, an annual review (Volume 1, pp. 162-190). Beverly Hills, CA: Sage Publications.
- Nye, F. I. (1974). Effects on mother. In L. W. Hoffman & F. I. Nye (Eds.), Working mothers (pp. 207-225). San Francisco, CA: Jossey-Bass Publishers.
- Nye, F. I. (1974). Husband-wife relationship. In L. W. Hoffman & F. I. Nye (Eds.), Working mothers. San Francisco, CA: Jossey-Bass Publishers.
- Nye, F. I. (1974). Sociocultural context. In L. W. Hoffman & F. I. Nye (Eds.), Working mothers San Francisco, CA: Jossey-Bass Publishers.
- Oaxaca, R. L. (1973). Male-female wage differentials in urban labor markets. International Economic Review, 14, 693-709.
- Office of the Chief of Staff for Personnel, U.S. Army. (1984). The Army family action plan 1. Washington, DC: Author.
- Office of Technology Assessment. (1985). A technology, innovational and regional economic development (Background Paper 12). Washington, DC: U.S. Government Printing Office.
- O'Neill, J. A. (1981). A time-series analysis of women's labor force participation. Journal of the American Economic Association, pp. 76
- Oppenheimer, V. K. (1974). The life-cycle squeeze: The interaction of men's occupational and family life cycles. Demography, 11, 227-245.
- Orthner, D. K. (1980). Families in blue: A study of married and single parent families in the Air Force. Washington, DC: Department of the Air Force.
- Parnes, H. R. C. Miljus, R. S. Spitz, & Associates. (1969). Career thresholds: A longitudinal study of the educational and labor market experience of male youth 14-24 years of age. Columbus, OH: Ohio State University, Center for Human Resource Research.
- Perry, K. S. (1982). Employers and child care: Establishing service through the work place (Pamphlet 23). Washington, DC: Women's Bureau, U.S. Department of Labor.
- Piotrkowski, C. S., & Crits-Christoph, P. (1981). Women's jobs and family adjustment. Journal of Family Issues, 2, 126-147.

- Pleck, J. H., & Staines, G. L. (1982). Work schedules and work-family conflict in two-earner couples. Beverly Hills, CA: Sage Publications.
- Polachek, S. W. (1981). Occupational self-selection: A human capital approach to sex differences in occupational structure. Review of Economics and Statistics, 63, 60.
- Raiha, N. K. (1986). Dual-career couples in the U.S. Army: A descriptive study. Unpublished doctoral dissertation, University of Washington, Seattle, WA.
- Robinson, J. (1934). The economics of imperfect competition. London: Macmillan and Co.
- Rosenfeld, R. A. (1978). women's employment patterns and occupational achievements. Social Science Research, 7, 61-68.
- Rumberger, R. W. (1984). The potential impact of technology on the skill requirements of future jobs (Project No. 1 84-A24). Stanford, CA: Stanford University Institute for Research on Education and Governance.
- Rutter, M. (1981). Socio-emotional consequences of day care for preschool children. American Journal of Orthopsychiatry, 51, 4-28.
- Salmone, P. R. (1971). A client-centered approach to job placement. Vocational Guidance Quarterly, 19, 266-270.
- Segal, M. W. (1986). The military and the family as greedy institutions. Armed Forces and Society, 13, 9-36.
- Sekaran, U. (1982). An investigation of the career salience of men and women in dual career families. Journal of Vocational Behavior, 20, 111-119.
- Sekaran, U. (1986). Dual-career families: Contemporary organizational and counseling issues. San Francisco, CA: Jossey-Bass Publishers.
- Sekas, M. H. (1984, April). Dual-career couples--A corporate challenge. Personnel Administration, 37-45.
- Shea, Nancy. (1966). The Army wife (Revised by A. P. Smith). New York: Harper and Row.
- Smith, D. A., & Goon, M. E. (1987, March). Spouse employment and the retention of Air Force officers: Some preliminary results. Paper presented at the Annual Meeting of the Eastern Economics Association, Crystal City, VA.
- Sobol, M. G. (1974). Commitment to work. In L. W. Hoffman & F. I. Nye (Eds.), Working mothers (pp. 63-80). San Francisco, CA: Jossey-Bass Publishers.

- Spitze, G. D., & Waite, L. J. (1981, February). Wives' employment: The role of husbands' perceived attitudes. Journal of Marriage and the Family, 117-124.
- Szoc, R. (1982). Family factors critical to retention. San Diego, CA: Navy Personnel Research and Development Center.
- Thurow, L. C. (1975). Generating inequality. New York: Basic Books.
- Treiman, D., & Hartman, H. (1981). Women work and wages: Equal pay for jobs of equal value. Washington, DC: National Academy Press.
- Ugland, P. R. (1977). Job seekers' aides: A systematic approach for organizing employer contacts. Rehabilitation Counseling Bulletin, 21, 107-115.
- U.S. Army Civilian Personnel Center, Office of the Deputy Chief of Staff for Personnel, U. S. Army. (1985). Study of family member employment assistance. Washington, DC: Author.
- U.S. Department of Labor. (1977). Dictionary of occupational titles (Fourth Ed). Washington, DC: U.S. Government Printing Office.
- US. Department of Labor. (1990). Occupational outlook handbook (1990-1991 Edition). Washington, DC: U.S. Government Printing Office.
- Van Vranken, E. W., Jellen, L. K., Knudsen, K. N., Marlowe, D. H. & Segal, M. W. (1984). The impact of deployment separation on Army families. Washington, DC: Walter Reed Army Institute of Research.
- Waite, L. J. (1980). Working wives and the family life cycle. American Journal of Sociology, 86, 272-294.
- Waldman, E. (1983, February). Labor force statistics from a family perspective. Monthly Labor Review, 16-40.
- Warr, P., & Parry, G. (1982). Paid employment and women's psychological well-being. Psychological Bulletin, 91, 498-516.
- Williams, J. W. (1976). Divorce and dissolution in the military family. In H. I. McCubbin, B. B. Dahl., & E. J. Hunter (Eds.), Families in the military system. Beverly Hills, CA: Sage Publications.
- Yogev, S. (1981). Do professional women have egalitarian marital relationships? Journal of Marriage and the Family, pp. 865-871.
- Zandy, J. J., & James, L. F. (1977). A review of research on job placement. Rehabilitation Counseling Bulletin, 21, 105-158.