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**Families and Mission: A Review of the Effects
of Family Factors on Army Attrition, Retention,
and Readiness**

Georges Vernez, Gail L. Zellman

August 1987

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PREFACE

↙ This Note surveys the available literature on family-manpower relationships as the first step in a broader project aimed at "Enhancing the Effectiveness of Army Family Programs."

This Note (1) reviews the Army's rationales for provision of quality-of-life and family support services; (2) presents a framework for analyzing the influence of family factors and support programs on Army families and on the Army; and (3) organizes and evaluates findings of previous research about the effects of Army policies and services on both families and the specific Army outcomes of attrition, retention, and readiness. In addition, it identifies gaps in knowledge about Army-family interactions, discusses the implications of research findings for Army family policy formulation, and offers directions for future research.

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*Key to Military dependencies: Attrition,
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SUMMARY

The military environment subjects the families of service members to a variety of stresses. These include frequent, long separations and numerous moves, often to locations with unfamiliar cultures and limited opportunities for spouse employment. The family must cope with the customs and authority structure of the military, which may impinge on the spouse's independence and privacy. Family stresses may influence the likelihood of a service member's leaving the service during his first term (attrition), the likelihood of his staying beyond the first term (retention), and even the readiness of the force to accomplish its mission.

Stresses on families tend to be especially strong in the Army, and the Army has undertaken major efforts to counteract them. It offers a number of "quality of life" and "family support" programs, including recreational activities, child care, family advocacy, spouse employment assistance, and drug and alcohol programs. The Army has also begun issuing annual Family Action Plans, which outline major family issues and actions the Army proposes to implement for the benefit of family members. Progress on these actions is reported in each subsequent plan.

The Army's efforts on behalf of families are based partly on a philosophy of "partnership" or "reciprocity." In this philosophy, the service member commits his or her life to the Army, and the Army obligates itself to provide services and benefits assuring a reasonable quality of life to the member's family. Often, however, practical decisions, made within a constrained budget, are based on a more utilitarian approach in which family programs are viewed as a means to improve retention, attrition, or readiness. While concerned about the welfare of families, the utilitarian view asks whether the substantial investment in programs to offset stresses on families is paying off in manpower terms. As a first step toward answering that question, we conducted a review of studies performed to date that might either yield such information directly or allow inferences to be drawn.

FINDINGS

The literature on family-manpower relationships is limited in several important respects. Coverage of manpower variables is uneven--there is a good deal of information on retention, less on attrition, and almost nothing on readiness. Many studies focus on specific family or environmental factors, ignoring others that could strongly condition the findings. Much information is anecdotal. Quantitative studies are often flawed through the use of nonrepresentative samples or limited statistical methods.

Still, there is a good deal of information on some aspects of family influence on decisions to leave or stay in the military. For example, we were able to verify that the mere presence of a family is related to individual decisions affecting manpower. Service members with spouses or with children are more likely to leave during their first term than those without, and service members with children are more likely to reenlist. There is evidence that family factors become more important with increasing years of service.

Some features of the military environment are negatively related to the services' ability to maintain their manpower. Frequency of relocation and long separations are associated with lower reenlistment rates, and service members who leave report that their spouses are unhappy with relocation and separation. Ability to choose one's station is negatively related to attrition and positively related to reenlistment. Service members experience lower attrition and higher reenlistment if they find supervisor support, satisfying peer relationships, and work satisfaction on the job. All these characteristics might be expected to ameliorate stress. But it is not merely the occurrence of stress factors such as relocation and separation that affect manpower outcomes--how stresses are perceived influence these outcomes as well. Perceptions of the necessity of a separation influence family attitudes toward the separation, and negative family attitudes reduce the likelihood of retention.

Some studies have attempted to relate quality-of-life and family support programs to manpower-related decisions. For instance, it has been found that satisfaction with medical care is positively related to reenlistment. By and large, however, the relationship of family services and manpower outcomes is unexplored. In fact, even the extent of use of many services is unknown.

Decisions to stay or leave can also be influenced by the civilian environment. Service members under similar stress and having similar experience with Army programs may arrive at different stay-or-leave decisions because they perceive different civilian employment alternatives. Those who perceive a better civilian opportunity have been found to leave at a higher rate. Off-base family services might also be expected to have an effect, but again, little is known regarding use of these services.

Finally, almost nothing is known about the relationship between military readiness and any of the above factors--family (or individual) characteristics, job stress characteristics, Army family programs, or the civilian environment.

POLICY IMPLICATIONS

Before any comprehensive policy can be recommended, more research is required, particularly regarding readiness and service use. Other areas that merit special attention include the relationship between marriage and attrition in the first term, when both occur at high rates, and the role of unit leaders in recognizing and helping to ameliorate family stresses.

Despite the limitations of available research, we have identified five points the Army might consider when formulating manpower policy.

1. The environmental stresses and the potential demand for quality-of-life and support programs differ among the four armed services. What works in the Air Force, in other words, may not work in the Army.

2. The Army should articulate more clearly, and in measurable ways, the objectives of each Army service.
3. More emphasis should be placed on communicating concern about families, providing information and justification for Army decisions that affect families, and giving families some voice in deciding their future. This approach may retain manpower better than providing costly services that attempt to help families already in trouble.
4. Policy development and force management are likely to be enhanced by explicit recognition that different factors and services matter for different groups and manpower variables. Effective policy requires specific targeting.
5. Innovative ways should be sought to minimize the Army's interference with spouses' work and professional aspirations. The Army should reassess in that light its relocation, separation, and duty assignment policies and procedures.

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We thank the many military and civilian staff of the U.S. Army who anonymously reviewed and commented on an earlier draft of this Note. Ms. Gail McGinn, the project officer, and Dr. Richard Fafara, at the U.S. Army Community and Family Support Center, offered continuous guidance and support throughout this project. At RAND, Michael Polich, Rick Eden, and James Chiesa provided valuable substantive and editorial comments. We also thank Linda Waite and Lieutenant Colonel Michael F. Tharrington for their careful reviews and helpful comments; Lisa Meredith for her excellent research assistance; and Jacqueline Bowens for her efficient typing of this Note.

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I. INTRODUCTION

In recent years, the Army has expended considerable energy and resources on families. To some extent, this focus reflects a changing structural reality: More wives are working and increasing numbers of these working spouses share their husband's employer, the Department of Defense. The labor force participation rate of wives has been increasing as rapidly in the military as in the civilian population, and has nearly doubled in the last 15 years.¹ Today more than one out of two Army spouses is in the labor force.²

To perhaps an even greater extent, this focus on families reflects changing values in both the military and in American society. An expansion of the father's role--once strictly limited to wage-earning--to include nurturing functions has put a premium on his active presence in the family. The notion that the wife should dutifully follow her husband, despite the costs she may incur in terms of career advancement or satisfaction has been considerably weakened.³ In addition, these "new" Army families put a number of pressures on the Army. The sheer numbers of family members continue to exert a strong demand for family-oriented services, such as pediatric medical care,⁴ and the increasingly vocal demands of some family-based organizations have increased the perception of families as a constituency group.

¹Overall, however, the labor force participation rate of military wives is still nearly 15 percentage points lower than that of their civilian counterparts (Hayghe, 1986).

²Defense Manpower Data Center, November 1986.

³The percent of military personnel approving of changes in women's roles increased from one out of two in 1974 to three out of four in 1980 (Ladycom, 1974 and 1980). Younger husbands report making a greater contribution to housework and child care than older military husbands (Ladycom, 1977).

⁴The proportion of married Army personnel has remained relatively constant over the past ten years, and the number of dependents has decreased slightly from 1.28 million in 1979 to 1.14 million in 1985 (Defense 86, September 1986).

STRESSES ON ARMY FAMILIES

Certainly, military families are subjected to numerous stresses that individually or in combination are not found in civilian life, or where found, operate at a higher level of intensity in the military. Compared with civilian families, military families are separated more frequently and longer; move more often; and are more frequently assigned to locations varying in cultural, work, and educational opportunities. In addition, military families, particularly those of members in combat units, must live with the constant uncertainty that the military member may be called on short notice to combat or other dangerous duties. All family members must cope with the authority structure of the military, which may affect the role and identity of spouses and may impinge substantially on family privacy.

Separation of family members due to training and exercise requirements or to assignments to unaccompanied tours is a constant, and largely unavoidable, feature of military life. Frequent and long separations require continuing adjustments on the part of both spouses.

The average Army family moves every 2-1/2 years (Defense Manpower Data Center, November 1986). These moves, besides being difficult, may prove psychologically and monetarily costly as well. Typically, only one dollar of every three spent in relocating is reimbursed by the Armed Forces (National Military Wives Association, 1983). Frequent moves also require frequent adjustments to changes in cost of living and to different cultures, languages, and work and educational opportunities. Indeed, about one third of Army personnel are stationed abroad (*Defense* 85, September 1985) and another one third in the continental United States (CONUS) are stationed at relatively isolated installations, i.e., more than 20 miles from a city of at least 50,000 inhabitants.⁵ Moreover, half of all moves are to "nonpreferred locations" (Doering and Hutzler, 1982).

The authority structure of the military is felt by military and family members in multiple ways. Traditionally, the military wife's

⁵Computation based on Department of Defense, *Army Base Structure for FY86*, no date.

role has been seen as a complementary one with the expectation that she places her husband's and the military's needs before her own or those of her children. Spouses were expected to participate in a broad range of social functions and volunteer activities in the military community. The role of Army families was to be supportive of Army goals. As increasingly more wives are working outside the home and there are more "military husbands," conflicts have arisen between military requirements and family commitments and expectations.

The military environment provides supervisors with more information about the personal life of military members than is available to civilian supervisors. Confidentiality does not apply to military doctor-patient relationships, to counseling services (other than legal services and chaplains), or to incidents of deviant behavior involving military members or their families.

Just as military life differs from civilian life, Army family structure differs in several significant ways from that of the other three services: the Navy, the Marine Corps, and the Air Force. The Army, like the Air Force, is from 15 to 25 percent more "married" than the Navy and the Marines. As of 1985, the Army also had 29 percent more dependents per enlisted member than the Navy and 50 percent more dependents per enlisted member than the Marines (see Table 1).

Rotational requirements also differ among the four Armed Services. Separations in the Army, as in the Navy, affect two out of three members in any twelve-month period; less than one or two are separated in the Air Force. For separated enlisted personnel, the average length of separation is greater in the Navy (6.1 months) and the Army (5.3 months) than in the Air Force (4.1 months). But, the Army (like the Air Force) has proportionately twice as many family members located abroad as the Navy. And the median time spent abroad by Army members is about twice as long as that spent by members of the other three services. Finally, the Army is 30 percent less likely than the Air Force and the Navy to assign its enlisted personnel to a preferred location (again, see Table 1).

In comparison with the other three Armed Services, these structural and demographic factors create higher levels of demand for Army services. Army rotational and deployment requirements may contribute to

Table 1

SELECTED FAMILY AND ROTATION CHARACTERISTICS
BY ARMED SERVICES, 1985

Item	Army	Navy	Marines	Air Force	All
<i>Family characteristics</i>					
Percent married					
Enlisted	56.1	49.8	45.5	62.2	55.1
Officers	77.3	69.6	71.6	76.3	74.8
Number of dependents per military member (1985)					
Enlisted	1.40	1.09	.93	1.37	1.27
Officers	1.85	1.70	1.85	1.88	1.83
<i>Rotation characteristics</i>					
Percent with separation in last 12 months [a]					
Enlisted	69.5	65.3	62.8	47.9	61.3
Officers	60.4	63.3	66.1	57.8	60.5
Average months of separation [b]					
Enlisted	5.3	6.1	5.4	4.1	5.3
Officers	3.7	5.2	4.1	3.3	3.9
Median years spent overseas (11-14 YOS)					
Enlisted	3.9	2.5	2.3	2.4	2.7
Officers	3.9	2.2	2.3	2.2	2.9
Percent dependents abroad (1985)	17.1	6.0	3.8	16.2	13.3
Percent assigned at location of preference (1979)					
Enlisted	48.0	63.4	46.8	62.9	56.7
Officers	65.5	76.1	76.6	68.0	69.0

SOURCES: Doering and Hutzler, 1982; Defense Manpower Data Center, June 1986; *Defense 86*, September 1986; and computations by RAND based on the 1985 DoD Survey of Enlisted Personnel and Officers.

[a] Including those with separations totaling one month or more.

[b] Averages exclude those with no separation or separations of less than one month.

higher rates of certain types of stress for its families than for the families of other service branches.

THE ARMY RESPONSE

The Army has made an aggressive response to these pressures on families. In 1980, 1981, and 1982, the Army supported,⁶ and in 1983 it became the organizer of, a series of symposia concerned with family issues and support programs. As an immediate follow-up to the issues raised in these symposia, the Army Chief of Staff issued a white paper in 1983 titled "The Army Family" which outlines the philosophy and goals of Army family policy: To enhance the partnership between the Army and its families, promote wellness, and develop a sense of community.

In 1984, declared "year of the family," the Army did two things to institutionalize its commitment to families. First, it established the Army Community and Family Support Center (CFSC), bringing under one central field administrative entity most of the Army "quality of life" and family support programs. Included under the CFSC umbrella are the Morale, Welfare and Recreation (MWR) programs which provide a variety of recreational activities to personnel and youth; child development services; Army Community Services, including information and referral, counseling, relocation services, family advocacy, financial planning, spouse employment services, youth and education, and exceptional family members. In addition to its program operations responsibilities, the CFSC is responsible for formulating policy and conducting program analyses and evaluations.

Second, in 1984 the Army released its first Army Family Action Plan. This plan outlines major family issues and specific actions the Army proposes to implement for the benefit of family members. The plan is now updated and revised annually. Each annual revision reviews steps that were taken to address the problems presented in the previous plan, thus providing continuity.

⁶In 1980, the Army Officers Wives Club of the Greater Washington area (AOWCGWA) organized the first Army Family Symposium with financial support from the Association of the U.S. Army (AUSA). In 1981 and 1982, the Army Family Action Council, a group of Army spouses in the Washington D.C. area, sponsored worldwide Army family symposia with the support of the Army.

These Army efforts on behalf of families are driven by two potentially conflicting approaches to providing family services.

The first, partnership approach, is rooted in the notion that the relationship between the Army and its members' families is reciprocal. In this view, the military member pledges strong commitment and a willingness to give her or his life, if necessary, to meet the Army's mission; in exchange, the Army assumes an obligation toward members and their families to provide those benefits and services that insure them a reasonable quality of life.

The second, utilitarian approach, views family members and family support programs as a potential policy lever for maintaining force levels and increasing force quality and readiness. Underlying this view is the notion that family members play a significant role in decisions concerning enlistment, attrition, and retention; if their needs are not being met, military members are likely to be pressured to leave the service or to devote duty time to meeting those needs. In this view, provision of support services to family members satisfies them by meeting their needs which, in turn, increases their positive influence on the military member to remain in the service and increases the members' commitment and performance.

The implications of these two approaches to families are different. In the first case, reciprocal responsibility argues for services independent of their effects on Army outcomes. The structure, content, and level of services and programs should, proponents of this viewpoint argue, be driven primarily by family needs. In the second case, utilitarian concern about force quality and readiness argues for concentrating resources on those services and programs that have the greatest impact on these outcomes. Should services demonstrate no impact on these outcomes, lead to the selective retention of the weaker members, or otherwise fail to contribute to mission-oriented functions, they should not be provided.

At this time, the first viewpoint seemingly dominates the Army's rationale and policy regarding quality of life and family support programs.⁷ As a consequence of this policy approach, the Army currently provides a broad array of programs such as housing, medical care, education, child care, subsidized post consumer facilities (e.g., exchanges, commissaries, and clubs), and recreation activities.⁸ Everyone has access to these "in-kind" benefits, with benefit levels varying in some instances as a function of seniority and rank. The value of these benefits does not enter into the determination of cash compensation, and suggestions that the two are reciprocal are resisted. The Army also provides and is expanding its "compensatory services," i.e., services designed to help military members and their families cope with military life, including financial assistance, child advocacy, family member employment assistance, and drug rehabilitation programs.

Until recently, the potential incompatibility of the partnership and utilitarian approaches was largely unrecognized. Indeed, it was assumed that family wellbeing and support programs promote Army readiness and retention. For instance, when Congress considered a reduction or elimination of commissaries and exchanges, the Army predicted a negative impact on morale and career intentions (Foley, 1981). Of late, questions about the nature and strength of this relationship are increasingly raised as the utilitarian point of view gains prominence in deliberations by Congress, the Department of Defense, and budget agencies. The Army also seems to be moving toward

⁷The 1983 White Paper and subsequent Family Action Plans state the Army philosophy toward the family in the following terms: "A partnership exists between the Army and Army Families. The Army's unique missions, concept of service and lifestyle of its members--All affect the nature of this partnership. Towards the goal of building a strong partnership, the Army remains committed to assuming adequate support to families in order to promote wellness; to develop a sense of community; and to strengthen the mutually reinforcing bonds between the Army and its families."

⁸Altogether, the Army offers more than 60 programs affecting the quality of life of military members and their families. For a listing and brief description of most (but not all) of these programs, see Department of the Army, *Quality of Life Minimum Standards*, Pamphlet 600-19, no date.

this position, stating that effects on Army readiness constitute "the basic criteria for any initiatives included in the annual Family Action Plan."⁹

PURPOSE OF THIS NOTE

The growing level of resources and concern devoted to Army family programs and the growing questions about their ultimate goals have prompted this study. Our purpose is to schematize the relationship between the Army and its families (Sec. II) and to identify the effects of Army policies and services on both families and the Army (Sec. III). Ultimately, we hope this review will contribute to a discussion of the relative merits of the partnership and utilitarian approaches to family services, and aid in the formulation of family policy (Sec. IV).

To achieve these goals, we have sought to synthesize past findings within a coherent and comprehensive view of Army families, Army policies, and Army programs. We do not attempt to provide an exhaustive review of past research; recent reviews have already covered much of the relevant literature in this way (e.g. Hunter, 1982b; Stolzenberg and Winkler, 1983; Kaslow and Ridenour, 1984).

To the extent that we have been selective, we emphasize studies which assess effects on manpower outcomes, to multivariate analyses based on "representative" samples, to studies that have considered family characteristics and spouses' behavior or views, and to post-1980 studies.¹⁰ By imposing an interdisciplinary unifying conceptual framework on a large but fragmented literature on families and the military, we have sought to shed light on appropriate policy approaches to families and point to successful attempts to serve both the Army's mission and its families' goals.

⁹Department of the Army, 1986, p. 48.

¹⁰Beginning in 1986, the Army initiated an ambitious five-year program of research on Army families involving the U.S. Army Research Institute for the Behavioral and Social Sciences, the Walter Reed Army Institute of Research, and outside contractors.

II. CONCEPTUAL FRAMEWORK

This section presents a conceptual framework for analyzing the influence of family factors and support programs on the Army. The framework provides an organizing structure to synthesize the literature and identify major gaps in current knowledge. Before presenting our model, we first define the Army outcomes considered in this review.

MANPOWER OUTCOMES

Of the four main manpower-related outcomes, three are considered in this review: attrition, retention, and readiness. Accession is not discussed here because few new enlisted personnel (one out of eight) are married at the time they join the Armed Forces. A slightly higher proportion of officers--about two out of ten--are married at service entry (see Table 2). Consequently, family considerations are unlikely to play a significant role in the ability of the Army to attract enlisted recruits in the first place.

Attrition. High levels of first-term enlisted attrition are of concern to the Army. All the military services currently lose approximately 30 percent of each entering cohort before the completion of three years of service (Buddin, 1984). About 40 percent of the Army's attrition occurs before completion of training and the remaining during the initial post-training phase (Buddin, 1981).

Distinguishing between early and post-training attrition is analytically and operationally important for two reasons. First, high post-training attrition rates imply that a large commitment of resources has been devoted to recruits who make no long-term contribution to force productivity. Second, the post-training period is noted for a high incidence of marriage. By the end of the fourth year of service, 51 percent of enlisted personnel are married, four times as many as were married at entry (Table 2). The simultaneity of these two major life events--marriage and a first assignment (often abroad)--may indeed have a major impact on post-training behavior, ability to cope with stress, and, ultimately, a decision to stay or not to stay in the Army.

Table 2
MARRIED PERSONNEL BY MONTHS OF SERVICE, ARMED SERVICE, AND RANK: 1985
(In percent)

Months of Service	Army				Navy				Marines				Air Force			
	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer
At entry	12	21	6	12	5	12	15	24								
24-36	36	53	29	47	31	51	46	54								
37-48	51	59	36	53	34	60	49	61								
49-96	68	73	57	61	63	66	67	71								
97-120	80	81	73	74	78	79	77	86								
All force average	56	77	50	70	45	72	62	76								

SOURCE: Computations by RAND based on the 1985 DoD Survey of Enlisted Personnel and Officers.

NOTE: "Married" means military members with a civilian or military spouse. It excludes singles, divorced, widowed, separated, and unknown.

Retention. At regular intervals (most enlistment periods are three or four years, less frequently two years), military personnel must make a decision to remain in or leave the Army.¹ The rate at which military personnel reenlist is important because of its costs and force management implications. The lower the reenlistment rate, the higher the need for accessions, turnover replacements, and incentives (e.g. education benefits) needed to retain and attract qualified personnel.

As with attrition, it is desirable to distinguish between reenlistment after the first term (usually after three or four years of service) and reenlistment after the second term (usually after six to eight years of service) and subsequent reenlistments. Reenlistment rates vary from a low 45 to 59 percent at the end of the first term to a high 80 percent or more at subsequent reenlistment periods (Table 3). Also, the proportion of married military members continues to increase with years of service from one out of two married after four years of service to four out of five married after eight years of service (Table 2), remaining fairly constant thereafter. Even more important, the proportion of married enlisted personnel with two or more children increases between the first and second term from 23 percent to 47 percent. Into the third term, that proportion reaches 64 percent (Table 4). Thus, we expect that family considerations might become increasingly important in reenlistment decisions at each decision point.

Readiness. Personnel readiness is one of three components of overall Army readiness, which includes training readiness and equipment status. We focus on personnel readiness because we expect family factors to affect readiness primarily through the individual military member's behavior and commitment. Personnel readiness is typically broken down into three elements: (1) personnel strength; (2) proportion of leadership positions filled; and (3) job qualifications of those assigned. The two first elements depend in large part on the attrition and retention rates discussed above. The third element of personnel

¹In some instances, reenlistment is not an option because the soldier does not meet the eligibility requirements, which are usually based on rank, education level, occupational specialty, or commander or supervisor decisions.

Table 3
REENLISTMENT RATES BY TERM AND BY SERVICE: FY80-FY85
(In percent)

Fiscal Year	Army		Navy		Marines		Air Force		All	
	FT	Career	FT	Career	FT	Career	FT	Career	FT	Career
80	51	69	37	67	23	50	36	82	39	71
81	55	73	42	73	27	74	43	86	43	76
82	59	86	50	79	34	76	57	90	53	85
83	45	86	56	82	33	76	66	92	52	86
84	43	88	58	80	40	84	62	90	51	86
85	43	85	55	79	35	83	54	89	48	84

SOURCE: Defense 86, September 1986.

NOTE: FT means first term and career means all subsequent terms.

Table 4

PERCENT OF MARRIED ARMY MEMBERS WITH SPECIFIC NUMBERS
OF DEPENDENTS, BY YEARS OF SERVICE: 1985

Percent of Married Army Members with				
Years of Service/Grade		0 Dependents	1 Dependent	2+ Dependents
0-4	Enlisted	45	31	23
	Officers	53	27	20
5-8	Enlisted	22	31	47
	Officers	33	23	44
9-10	Enlisted	13	24	64
	Officers	19	28	53
11-16	Enlisted	10	19	71
	Officers	14	17	69
17+	Enlisted	9	17	73
	Officers	11	16	73

SOURCE: Computations by RAND based on the 1985 DoD Survey of Enlisted Personnel and Officers.

NOTE: Dependents exclude spouses. Lines may not add to 100 because of rounding.

readiness concerns "quality" of the force. The key question here is whether family factors or programs impact *selectively* on the decision to leave or reenlist, resulting in the most qualified people--as typically measured by years of schooling, Armed Forces Qualification Test (AFQT) scores, job performance, speed of promotion, and promotion scores--leaving the Army at a higher (or lower) rate; or with differential attrition or retention rates between combat and support functions.

In addition to effects on amount and quality of personnel supply, we are concerned with two other aspects of individual motivation and behavior that are not frequently measured, but which may directly or indirectly affect readiness: (1) loss of duty time and (2) erosion of motivation and commitment.

There is some evidence (discussed in Sec. III) suggesting that family factors and lack of accessibility to support services increase soldiers' absences from their assigned duty stations. Absence from duty is likely to affect training effectiveness at the individual and unit level and thus ultimately readiness and combat effectiveness. Sorley (1980) argues that a unit's ability to conduct meaningful training drops off rapidly when it cannot field its full complement of troops and that a unit loses all capacity to train effectively when strength falls below 80 percent. He suggests that this is a particularly critical issue for units depending on team skills such as tank crews, artillery firing batteries, infantry squads, command post elements, recovery crews, and medical stations.

Moreover, family-related matters and programs may occupy a non-negligible amount of command and unit leader time (e.g. writing letters of indebtedness, counseling, or reviewing a family violence case). Unit leaders are expected to know of and facilitate resolution of personal and family problems. Given that there is a finite amount of command time and energy to be expended, this duty may reduce the time available for efforts contributing more directly to combat readiness (Sorley, 1980).

There are also concerns that motivation and commitment may be eroded by growing conflicts between military job demands and family needs as an increasing proportion of spouses work and the father's role in family matters broadens. However, no data exist concerning these important issues.

A FRAMEWORK FOR UNDERSTANDING ARMY FAMILY DECISIONMAKING

Figure 1 presents a framework for analyzing the influence of family factors and support programs on Army outcomes. The variables chosen for inclusion in the model and the way they are organized into components are based on the literature on family dynamics, job-related decisionmaking, and factors predicting job satisfaction and retention. By identifying the factors and relationships that are important, the model aids in evaluating the contributions of prior research to our understanding of Army-family interactions and in pointing out gaps in our knowledge.

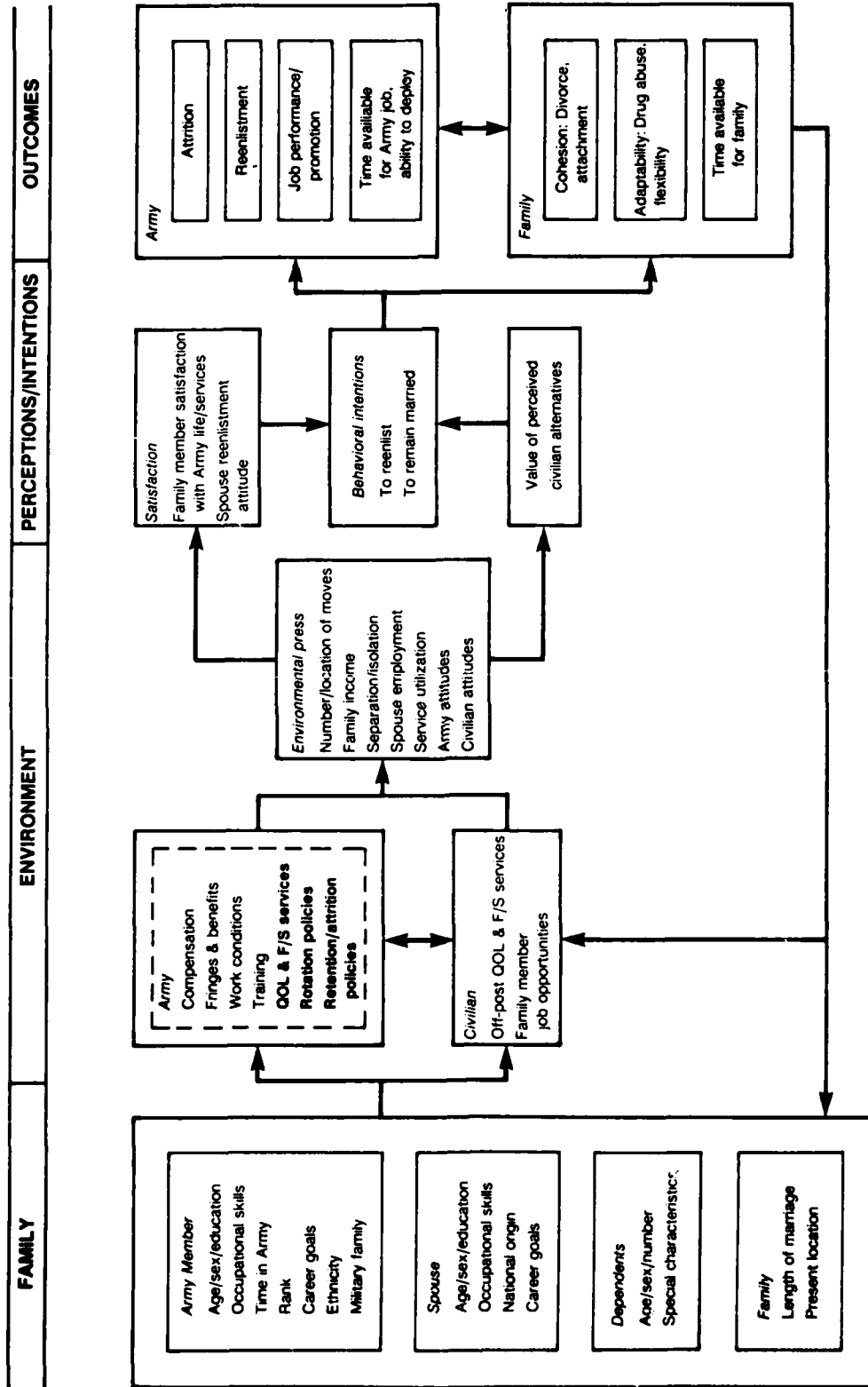


Fig. 1—A model of Army family decisionmaking

The internal structure and external relationships of each model component (and the very presence of some of them) represent significant departures from current notions about the factors that affect family and Army outcomes. Beginning at the left, the model's first departure is that it defines the unit of observation and analysis as the family rather than the individual. The model explicitly recognizes that a job-related decision made by one family member has consequences for other family members as well as the decisionmaker. These consequences are known and considered in the decisionmaking process. For example, a Permanent Change of Station (PCS) will result in a move for the military member; if the tour is accompanied, it will mean a job termination for the employed spouse whose paycheck may be critical for family well-being, plus an abrupt change of schools for children. If the tour is unaccompanied, it will result in family separation and the difficulties associated with the spouse becoming a temporary head of household.

Second, the model suggests possible tradeoffs the Army might make in attempting to meet family needs. A number of studies have suggested that the perceived costs and benefits of more money, frequent relocations, and nonpecuniary factors vary with military tenure, and correspond to stages of family development. For example, Fletcher and Giesler (1981) found that satisfaction with pay was most important among a set of predictors for retaining first-term personnel, whereas nonpecuniary factors were as important in the retention decisions of career members.

Third, the model suggests that factors external to the Army may interact with internal factors in predicting Army outcomes. Army personnel are part of a broader civilian community, even if temporarily. Families may trade off services provided directly by the Army with services provided in the civilian community. Moreover, the immediate environment external to an Army installation determines to a large extent the level of opportunities available to family members for work, education, and recreation. The type and availability of civilian services and amenities and their quality will vary depending on the location of Army installations in CONUS and abroad.²

²Because civilian services and opportunities vary substantially

Fourth, the model postulates that the combination of Army and community environmental and policy factors exercises an "environmental press" on family members as individuals and as a family unit. Whereas most of the factors identified in Fig. 1 are self-explanatory, three need elaborating: (1) service utilization; (2) Army attitudes toward families; and (3) civilian attitudes toward the Army. The presence of a family need and the availability of the appropriate service is necessary but not sufficient for service use. Lack of confidentiality, commanders' active involvement in "problem" cases, and fear of a negative impact on a military career (whether real or imagined) are often cited as barriers to service utilization. These factors can lead to underutilization of a service, and as a result the service may be relied upon only in crisis. Thus, the installation's and unit's approach to family problems plays a direct role in "encouraging" or "discouraging" families to avail themselves of available services. The third factor, civilian attitude toward the Armed Forces in general and the Army in particular, may increase or reduce the amount of stress on Army families, and thus affect the costs of continued Army involvement.

Fifth, the model underlines the importance of perceived alternatives in Army family decisionmaking (Thibaut and Kelley, 1959; Stolzenberg and Winkler, 1983). It is not sufficient to know whether military members and their families are satisfied or dissatisfied with Army life; it is also necessary to know how their level of satisfaction with Army life compares with the level of satisfaction which they think would be available to them in the civilian sector.

Sixth, the model suggests that there are important family outcomes that may interact with Army outcomes in several different ways. An attrition or reenlistment decision can be reached following, simultaneously, or prior to a decision to marry, have a(nother) child, divorce, or separate. These decisions in the long run have an impact on

across installations, it is the installation, not the Major Command or unit that is the appropriate level of analysis for studying family support programs. Also, it is at the installation level that key decisions are made regarding the type, quantity, and quality of family support services and where authority to make tradeoffs among services is currently vested.

aggregate family structure and the type and level of services needed. In the short run, while these decisions are being made, the job performance of the soldier may be negatively affected. Similarly, individual or environmental factors may lead one or more of the family members to abuse a spouse or child, use drugs or alcohol in excess, or other individual or family problems which in turn may affect the family, job performance, and Army readiness.

The dynamic nature of Army family decisionmaking is the final point addressed by the model. Institutionalized within the Armed Forces are periodic decision points: the Army's decision to relocate the military member, offer reenlistment, or promote; and the Army family's decision to leave the military, reenlist, or "give it its all." Over time, family members learn through experience. The second Permanent Change of Station may not be as difficult as the first one. Moreover, different tradeoffs may be made at different stages of family development depending on age, term of service, rank, locational patterns, and changes in expectations. This suggests that longitudinal data containing repeated measures of service utilization, behavior, and perceptions by family members on a broad range of pecuniary and nonpecuniary factors would be far superior to the currently available cross-sectional data for understanding Army family decisionmaking and its effect on Army outcomes. Longitudinal data describe sequences of behavior and perceptions for families and their individual members, and unlike cross-sectional data, provide information on both the antecedents and the consequences of specific events. Such information would help resolve causal ambiguities in understanding the role of family factors in Army outcomes. For example, such data would clarify the causal relationship between service use and family well-being and between service use and Army job requirements.

III. REVIEW OF THE LITERATURE

OVERVIEW

The literature on military families includes a wide range of studies that take different perspectives on the interaction between families and the military. There are also significant differences among studies in design and analytical rigor, coverage, and audiences addressed. Below, we identify the major characteristics of this literature and outline its strengths and its limitations.

First, the coverage of Army manpower outcomes in the available literature is uneven. Most of the best analytical studies have concentrated on retention; an excellent overview of this literature is contained in Stolzenberg and Winkler's *Voluntary Terminations from Military Service* (1983). With a few exceptions, attrition and, particularly, readiness have been ignored.

Second, embedded in the literature is the implicit assumption that the same family factors affect attrition, retention, readiness, and family outcomes equally. There is evidence, however, that this assumption is incorrect. Some data, discussed below, suggest that the importance of these factors differs as a function of outcome considered (e.g., post-training attrition vs. first-term attrition; first reenlistment vs. subsequent reenlistments; retention vs. readiness); as a function of rank (most likely a proxy for income), and as a function of service (e.g., Navy vs. Army vs. Air Force).

Third, there is a tendency in the literature for a disjointed coverage of factors. One set of studies focuses primarily on issues of compensation, giving little or no consideration to family and other nonpecuniary influences. Conversely, another set of studies looks at family issues and programs, giving weak treatment to factors such as pay when not ignoring them entirely. The latter studies also tend to focus on perceptions and satisfactions about military life and quality-of-life services, rather than on objective measures of service utilization, accessibility, and quality. The first set of studies tends to be quantitative and utilitarian, whereas the second set of studies tends to

be qualitative, emphasizing the special environment and needs of the Army as an institution. As a result, the current literature is not informative about the relative influence on Army outcomes of family-related factors and programs, as compared with pay and benefits, job conditions, and other relevant factors. Multidisciplinary research considering both viewpoints is sorely needed to untangle this key issue.

The literature has a number of additional methodological problems. A large segment of the literature on Army families is anecdotal. Other studies use nonrandom opportunity samples, limiting generalization of findings. Many studies rely on statistical methods, such as cross-tabulation and simple pair-wise correlation, which limit the usefulness of study results and may even suggest misleading relationships. A few more recent studies apply multivariate techniques to cross-sectional data. While a vast improvement over the simpler statistical techniques, such analyses are likely to underestimate the influence of some factors, particularly family factors, because those families remaining in the military at any one point in time are not representative of the original cohort of families. They overrepresent those who were able to cope with its demands, who have a "taste" for military life, or who may perceive fewer civilian opportunities.

A last methodological issue is that most existing data sets lack specific information on topics that may have important effects on Army outcomes. Most carefully designed surveys conducted to date have looked at family-related issues exclusively from the eyes of military members.¹ Also, data on utilization and experience with services are generally lacking. Finally, data on satisfaction with military life relative to perceived opportunities in the civilian sector are only rarely collected.

INDIVIDUAL AND FAMILY FACTORS

Following the structure imposed by our conceptual framework, we begin our review with those individual factors that logically precede or occur independently of the Army and with those family factors that may precede or interact with Army events.

¹A survey of military spouses was fielded for the first time in 1985 by the Department of Defense.

Individual Factors

Long-standing interest in improving the quality and performance of new recruits has led to numerous studies of preservice attributes. Since few new recruits are married, studies of new recruits tend to consider individual factors such as age, level of education, race, and ability level. These factors may play an important role in Army-family interactions, either directly or through their effects on attrition and retention.

Education. A number of studies of enlisted personnel have found that those with less than a high school education are more likely to leave the service during the first term (Doering and Grissmer, 1985; Fernandez, 1985; Sinaiko et al., 1981; Buddin, 1981). Most studies of education and attrition hold constant measures of ability level [typically, AFQT or Armed Services Vocational Aptitude Battery (ASVAB) scores] so that what schooling probably measures in these studies is perseverance, goal orientation, or the ability to accept authority.

There is some evidence to show that education remains a significant factor in career decisions at later points in one's military career (e.g., Enns, 1977; Chow and Polich, 1980). Lund (1978) reports that among junior Army officers with a BA, only 10 percent planned to remain in the service, compared with 55 percent of those without a college degree.

Ability. Aptitude and achievement level (as measured by AFQT and the ASVAB) predict responses similar to those predicted by education. Several studies (Doering and Grissmer, 1985; Baldwin and Daula, 1985a,b; Sinaiko et al., 1981; Lockman, 1977a,b; Buddin, 1981; Fletcher and Giesler, 1981) find that the higher the aptitude or achievement level, the lower is attrition. Higher ability combined with high school completion are associated with accelerated promotion during the first term (Ward and Tan, 1985). If a recruit completes the first term, however, lower ability appears to increase the probability of reenlistment (Chow and Polich, 1980; Ward and Tan, 1985).

Several studies find that *occupational assignment* interacts with ability and education level in increasing the likelihood of particular military outcomes. Fernandez (1985) found that the effects of AFQT and

aptitude on job performance varied as a function of Army job specialty. Sarason (1981) reports that high school noncompleters had very high attrition rates when they were in platoons headed by drill instructors who had a history of high recruit attrition. High school noncompleters in low attrition platoons had average or below average attrition rates. Attention to these interactions, as demonstrated in Goodstadt, Yedlin, and Romanczak's (1978) case study of unit level attrition, may help to clarify the importance of job characteristics and unit practices in manpower outcomes.

In the aggregate, at least, the attrition process appears to be serving the Army's goal of a high-quality career force. Ward and Tan (1985) examined the quality of those who left during the first term, those who left at its end, and those who reenlisted, using males in the FY74 Entry Cohort File. Measuring quality in terms of speed of promotion to E4 or E5, level of education at entry, and AFQT score at entry, they found that those leaving during the term had the lowest mean quality, while those who reenlisted had the highest mean quality rating.

There are no studies of the effects of ability on readiness, although there are concerns about whether lower-ability personnel are capable of developing needed skills in light of the cognitive demands imposed by more advanced military technology (e.g., Allen, 1981).

Age. Age is another preservice characteristic that appears to be important to career decisions. Whereas a number of studies (e.g., Buddin, 1981; Guthrie, Lakota, and Matlock, 1978; Doering and Grissmer, 1985; Sinaiko et al., 1981) find that younger recruits (under 18) are more likely to quit during the first term than older ones, Lockman (1977a,b) reports a bell-shaped relationship between age and voluntary termination in the Navy: sailors younger than 18 or older than 19 were more likely to quit than 18 and 19 year olds. Allen (1981) found that when years of service were held constant, age and career intention were significantly positively correlated for both enlisted personnel and officers. The effects of age on readiness, likely to be complex, have been little addressed. Although increasing age may increase the time needed to recover from physical exertion, age may bring the maturity and commitment associated with improved performance (Allen, 1981).

Personality Characteristics. The effects of personality characteristics on military outcomes have been afforded considerable research attention. Two traits have been studied more than others: locus of control and deviance.

Locus of control (Rotter, 1966) measures the degree to which an individual believes his or her fate, variously defined, falls under his control (internal locus of control), or is at the mercy of luck or chance (external locus of control). The military literature finds that internal LOC is associated with lower first-term attrition (Szoc, 1982).

As might be expected, numerous studies find that nonconformity is associated with both more attrition and decreased probability of making a career commitment (e.g., Yellen, 1975; Greenberg, Murphy, and McConeghy, 1977). Allen (1981), in his study of Army personnel, found that unconventional religious beliefs and practices were weakly associated with reduced career commitment for enlisted personnel, whereas for officers, "deviance," measured by recent drug use, problems with alcohol, nontraffic arrests, and counseling experiences, was negatively associated with Army career intent. These findings indicate that nonconforming people, some of whom are having adjustment difficulties, are likely to have problems in an Army setting.

Gender. Although the Army is recruiting more women, as a group women appear to fit less well into the Army environment.² Numerous attrition studies (e.g., Doering and Grissmer, 1985; Fernandez, 1985; Baldwin and Daula, 1985a,b) report that females are more likely than males to leave before completing the first term. In one study, using data from FY78 enlistees (Oganesoff, 1982) 26 percent of male Army recruits and 48 percent of female recruits failed to complete their first term of enlistment. Several attitudinal studies suggest reasons for this gender difference. Orthner (1980) reports that Air Force women experience less familial support for their military job and are more likely than men to view the Air Force as unfair to women. The perception of fairness to women was a key predictor of job morale for

²The number of women in the Army increased by 28 percent between 1979 and 1985, while the total active duty force increased by 2.2 percent (*Defense 80*, September 1980 and *Defense 86*, September 1986).

women, with spouse and supervisor support, which were key predictors of job satisfaction for men, somewhat less important. Job characteristics play a role as well: the nontraditional-for-women Army jobs that as many as 60 percent of Army women find themselves in may promote attrition and reduce the likelihood of reenlistment (Doering, 1985; Sinaiko et al., 1981; Oganessoff, 1982). Waite and Berryman (1985), for example, found women's turnover was affected by the traditionality of the actual military work: turnover increased as the military job became "more male."

Summary. Research findings show that a number of individual factors are important in predicting short-term and long-term military outcomes. Level of education, particularly whether or not high school has been completed, ability level, age, personality characteristics (particularly deviance), and gender all have direct effects on attrition and retention. New data suggest that at least some of these effects are mediated by the work environment. The nature of this interaction deserves further study.

Family Factors

Only a few family characteristics have been found to be important in predicting attrition, but it is unclear whether this reflects the reality that few recruits have families, or a failure to include more family characteristics in attrition studies.

A lack of in-depth studies of the effects of family factors on attrition may reflect the widespread view that attrition is a healthy process that rids the Army of potential (or real) misfits, a view that receives some research support (e.g., Ward and Tan, 1985). Pretraining attrition in particular is looked upon with considerable equanimity (Goodstadt, Yedlin, and Romanczak, 1978). These assumptions about the organizational benefits of attrition may overlook its organizational costs, while discouraging systematic study of both family formation processes during the first term and organizational variables that might appropriately reduce attrition rates.

The two family factors consistently found to be important in attrition are *marital status* and *parent status*. Most studies find that recruits who are engaged or married upon entry into the Army are more

attrition-prone (e.g., Orend, 1984; Landau and Farkas, 1978), although at least two studies produce contradictory results (Buddin, 1981; Sinaiko et al., 1981), and several other studies of recruits find no effects of marriage (e.g., Chow and Polich, 1980). The effects of marital status seemingly vary by job category (Military Occupational Specialty, MOS). Baldwin and Daula (1985a) find that married infantrymen were more likely to attrit compared with their single counterparts, whereas the opposite was true for clerks. They attribute this differential to differences in work requirements: Army clerical work is similar to office-type work in the private sector, while the longer hours and field training requirements of infantrymen place special stresses upon married soldiers in that job.

No study has examined the dynamic relationship between marriage (or marriage intention) and attrition. However, this work would be worthwhile, since about 40 percent of new recruits marry during their first term (Doering et al., 1981), and up to 40 percent leave the service before the end of the first term.

Findings regarding the effect of marital status on first-term reenlistment are not consistent. A number of studies suggest that marriage slightly decreases the probability of reenlistment after the first term (e.g., Lockman, 1977a,b; Hiller, 1982)³, while Szoc (1982) finds no effect of marriage on career intent and Faris (1984) and Baldwin and Daula (1985a,b) find that marriage increases the probability of reenlistment after the first term.

In contrast to the somewhat ambiguous effects of marital status, the presence of children has been shown to have a uniformly negative impact on completion of the first term. Even in studies where marriage is associated with reduced attrition, the presence of children negates this effect (Stolzenberg and Winkler, 1983; Sinaiko et al., 1981; Buddin, 1981; Oganessoff, 1982).

The presence of children later in one's career has been found to increase retention in more than one study (Szoc, 1982a,b) and to be unimportant in others (e.g., Mohr, Holzback, and Morrison, 1981). How

³Grissmer and Kirby (1985a,b) also found that married national guards had a lower probability of enlisting for active duty than singles or married soldiers with dependents.

and why children affect retention is unclear. Szoc (1982b) explored the effects of children with two family structure variables in his analysis: a youngest child under 5, and a youngest child 5-12. In his multivariate analysis, he found that for both Navy officers (O1-O4) and enlisted personnel (E4-E6), having no dependent children was associated with increased likelihood of leaving. For those with dependent children, stage in the family life cycle played a role: those with very young children (under 5) were more likely to leave than those with children between 5 and 12. He suggests that the desire for job stability through the elementary school years may explain the effects of child age. However, the frequent moves Navy families experience cast doubt on this explanation.

Concerns have been raised in the military press about the effects of young children, child care responsibilities, and the reliability of child care on readiness. Although little research has addressed this issue, there is some evidence in the civilian literature that having children under 7 is associated with increased employee absences (Ilgen and Hollenback, 1984). Several military studies suggest that further investigation of the relationship between family factors and readiness would be most illuminating. Hartnegel (1974) described in Stanton (1976) finds, for example, that half the AWOLs in his study (service unspecified) reported having gone AWOL to correct a family problem or to augment the family income.

In a small, geographically limited sample of Army personnel and their spouses, Woelfel (1979) found generally weak associations between other family variables, such as cohesion and achievement orientation, and Army outcomes. An important exception was the moderate correlation between family cohesion and supervisor ratings of job performance for enlisted women. These data suggest that for women, who generally are responsible for family maintenance, how well the family was functioning influenced their ability to perform their jobs effectively. The lack of such a relationship for men points once again to the complexity inherent in understanding families and their impact on military outcomes.

There are no data concerning the selective effects of family factors. Such information would help to frame service policies for families. For example, if the "best" people were marrying during the

first term, and marriage (independent of other factors) increased subsequent attrition probabilities, further exploration of the dynamics of these relationships would be in order, and marital counseling might be made highly accessible. If, however, marriage tended to occur with the highest probability in a subgroup whose probability of attrition was already high (e.g., younger than 18 at entry), it might be concluded that aggressive marital counseling as a means of reducing attrition rates in this subgroup would not be in the Army's best interest.

Available data indicate that the relationships among family factors and between family factors and Army outcomes are complex. The dynamics of family factors and their direct and selective impact on Army outcomes deserve further, more detailed consideration. In the subsections that follow, we discuss some of these dynamics and draw implications for Army policy.

ARMY ENVIRONMENT

In our conceptual framework for understanding Army family decisionmaking, (Sec. II), we include in one category a range of features in the military and civilian environment that we believe to affect families and, hence, Army outcomes. The environmental factors may be divided into two categories: (1) those that are Army-provided, including personnel policies, particularly rotation policies; job-related characteristics, such as compensation, fringe benefits, and working conditions; and QOL programs; and (2) those that are external to the Army, including off-post QOL services, as well as employment, recreation, and education opportunities for family members. In our framework, the combined effects of these factors exercise an "environmental press" on family members as individuals and as a family unit.

While conceptually independent, many of these factors merge together in the literature and in reality. We conform as closely as possible to our framework in discussing these factors, but do cross over categories in describing environmental factors and their effects on military outcomes.

Rotation Policies

Despite the increasingly occupational focus of military personnel (Moskos, 1986), the military remains a unique employer. To a significant extent, a military job dictates a particular lifestyle, both because job requirements frequently impose on the rest of one's life and because the unique demands and frequent isolation of military work exert a cohesive force on military personnel. Probably the three most problematic employment policies characteristic of the military are frequent relocation, lack of choice in duty station, and frequent separations of the military member from home and family.

Relocation. Relocation of military members and their families is a hallmark of military life. Half of all military members move every two years, and many move more frequently. The 1985 DoD Survey (Defense Manpower Data Center, November 1986) found that across services, spouses with 2-4 years of marriage in service reported a median 1.8 family moves. As years of marriage in service (YMS) increased, the number of relocations increased disproportionately, so that among those with 10-14 YMS, the median number of family moves was 4.8. The pattern of relocation is similar for officers, with the number of moves increasing disproportionately as YMS increase. However, officers appear to move slightly more than enlisted personnel in each YMS category (see Table 5).

Army enlisted personnel move slightly more often than enlisted personnel in the other three services. Army officers tend to move more than Navy and Air Force officers.

Family relocation places both financial and psychological burdens on families. While all but the lowest grades of enlisted personnel receive allowances for moving household furnishings and transporting family members to the new location, this allowance in most cases does not cover the full cost of moving (McCubbin and Marsden, 1978). DoD 1979 survey data indicate that an inadequate relocation allowance was a serious problem or somewhat of a problem for 41.3 percent of Army enlisted personnel and 37.3 percent of officers. Nearly one-third (32.7 percent) of Army enlisted personnel reported having incurred more than \$400 in unreimbursed expenses in the course of the last move.*

*Since 1979, many relocation benefits have been improved while others have been trimmed back. The net effect of these changes on unreimbursed moving expenses has not been analyzed since.

Table 5

MEDIAN NUMBER OF MOVES FOR MILITARY PERSONNEL
AND SPOUSES BY ARMED SERVICE,
YEARS OF MARRIAGE IN SERVICE, AND RANK

Years of Marriage in Service (YMS)		Army	Navy	Marines	Air Force	All
Enlisted personnel						
2 to 4	Military	2.0	1.9	1.8	1.5	1.8
	Spouses	1.9	1.8	1.6	1.5	1.8
5 to 9	Military	3.6	3.2	3.4	2.9	3.3
	Spouses	3.5	3.1	3.1	2.8	3.1
10 to 14	Military	5.4	4.7	5.3	4.7	5.0
	Spouses	5.3	4.2	5.0	4.5	4.8
Officers						
2 to 4	Military	2.3	2.3	2.4	2.0	2.2
	Spouses	2.2	2.2	2.3	1.9	2.1
5 to 9	Military	4.3	4.0	4.3	3.3	3.9
	Spouses	4.1	3.9	3.8	3.3	3.8
10 to 14	Military	6.8	5.8	6.5	5.4	6.1
	Spouses	6.5	5.6	6.1	5.3	5.8

SOURCE: Defense Manpower Data Center, November 1986,
Vol. I, Tables 4-5 and 4-6, pp. 4-13 to 4-30.

Once at the new location, the family is often forced to adjust to higher living costs as well. More than half of Army enlisted personnel listed this as a problem in the 1985 DoD Survey. For both enlisted personnel and officers, adjusting to a higher cost of living appears to be more of a problem in CONUS.

Relocations force employed wives to leave a job and begin a search for another. Often, especially OCONUS, this search is fruitless because of limited opportunities, or produces a job that does not draw upon

skills or training. Finding spouse and dependent employment in a new location was the most frequently noted serious problem associated with the last PCS move reported by both officers and enlisted personnel on the 1985 survey. The problem is becoming more salient: finding spouse and dependent employment was ranked second on the 1979 DoD Survey.

Finding spouse employment may be more of a problem because more spouses are working. The 1985 (DoD) survey shows that in CONUS, 52 percent of Army officers' wives and 55 percent of enlisted Army wives are in the labor force. About 50 percent of them are working full-time, 25 percent are working part-time, and the remaining are unemployed and looking for work (Defense Manpower Data Center, November 1986). Slightly lower labor force participation rates abroad no doubt reflect the problems of finding work in foreign countries, particularly at U.S. Army bases in Germany (Carrier, 1982).

Spouse adjustment may pose more of a problem to military members than adjustment of children, who must adapt to a different environment and establish new peer relationships during a sometimes difficult phase of development (Stanton, 1976). While 11.2 percent of married Army enlisted personnel considered adjustment of spouse a serious problem, only 6.6 percent checked adjustment of children as a major source of concern (Defense Manpower Data Center, June 1986).

The problems associated with PCS moves may be mitigated somewhat by the unique coping style of military families. Air Force families, as profiled in *Families in Blue* (Orthner, 1980) appear to cope with frequent moves by forming only superficial attachments in each location. Says Orthner:

Among Air Force married couples . . . we find an unusually heavy emphasis on family independence. The Air Force environment is rich with acquaintances, neighbors, and work associates, but the majority of couples do not feel genuinely close to people in the Air Force community. Only 39 percent of the married men and 55 percent of the married women say they feel very close to their *friends* [emphasis his] . . . When major personal or family problems arise, these families are most likely to try to solve these themselves (p. 86).

The high level of families' self-reliance these data imply may be a healthy adaptation to a nomadic lifestyle. But this high degree of self-reliance forms a shaky foundation, particularly in times of stress (Orthner, 1980).

Relocation and separation have both been examined in research studies of retention.⁵ Given the dollar and emotional costs of moves and separations that families bear, the implicit hypothesis is generally that they will contribute to termination decisions, especially if the number of moves or the amount of separation exceeds some undefined threshold and begins to be seen as "excessive." Several surveys show that wives regard separations and moves as among the least appealing aspects of a husband's military career. For example, in a survey of 1,600 company-grade officers leaving the Army, the Army Military Personnel Center (1973) found that 96 percent reported wives dissatisfied with family separation and 85 percent with the frequency of PCS moves. In contrast, separating husbands reported only 12 percent of wives were dissatisfied with pay and allowances, and 19 percent with the PX and commissary.

Of course, these findings are only suggestive, since they do not compare them with the responses of those who did not leave. The results of more sophisticated studies in which separations and moves are examined with controls for other factors indicate that they have a small but detectable effect on career decisionmaking. Szoc (1982) found that moves affected retention in his study of Navy enlisted personnel and officers.

The results of cross-tabular analysis indicate that the relationship between moves and retention appears to be bell-shaped: those reporting no moves and those reporting "very frequent" moves at a given time were most likely to leave the Navy when the enlistment period had ended. The difference between enlisted personnel and officers

⁵Few have studied the effects of relocation, separation and/or location of preference on attrition. One researcher (Kohen, 1984), however, found that when "disliking geographic location, too frequent moving, or separation from family" were given as reasons for attriting, the likelihood of attrition slightly increased.

increased from 5.4 percent in the no-moves category to 12.8 percent in the "very frequent" moves category (with enlisted personnel leaving at higher rates).

Location Preference. As discussed above, Army personnel tend to report more problems with moves than personnel in the other services. One problem may be that Army enlisted personnel are more likely to be assigned to a nonpreferred location than other enlistees in the Navy or the Air Force (see Table 1, Sec. I). Moreover, Army enlisted personnel expect to spend far more of their time overseas--34 percent--than enlisted personnel in the other services (21 percent at most) (Doering and Hutzler, 1982). Although many personnel may enjoy being overseas, DoD Survey data find that some problems associated with moves are more serious overseas. For example, finding permanent housing and continuing education programs are more difficult outside the United States (OCONUS) (Defense Manpower Data Center, November 1986).

Hiller's (1982) study of the reenlistment intentions of second-term personnel service-wide revealed that location was a surprisingly strong factor in reenlistment intentions. Using 1979 DoD Survey data, Hiller found that guaranteeing a preferred location was several times as effective as a 10 percent (of Regular Military Compensation) bonus in increasing reenlistment intentions. The aggregate effect for Army personnel was 35.4 percent, meaning that location of choice would be as effective as a bonus equal to 27 percent of annual pay in increasing the likelihood of reenlistment. Preferred location had the smallest aggregate effect in the Army and the largest effect in the Marines.

Moreover, the effect of preferred location varied as a function of Years of Service (YOS) and family structure. Those with more YOS responded less positively to location choice. Those with more than two dependents were also less likely to increase their reenlistment intention because of guaranteed location. Hiller suggests that the reduced appeal of location choice to those with larger families reflects the greater moving difficulties that larger families have, compared with unmarried personnel. However, location choice could include staying put, obviating the need for the next move. Hiller notes the need for multivariate analyses of the data to clarify these and other findings.

Buddin (1981) found location important in predicting attrition. Using data from the service records of the 1975 cohort of new recruits, he analyzed post-training attrition in the Army and Air Force. He used two categories of predictor variables: individual background characteristics--such as schooling, race, and ability--and military environment variables, including training, occupational specialty, duty location, and job reassignments. Multivariate analyses showed a significant effect of duty location on attrition even after controlling for the above variables.

Arima's (1981) study of Navy line officers' reactions to how their mid-career moves were handled found that satisfaction with the *process* of duty assignments explained about five percent of the variance in intention to remain in the Navy.

Separation. Separation of the military member from his or her family is a third policy with potentially important effects on families and Army outcomes. Deployments and unaccompanied tours result in family separations that may be extensive. Data from the 1985 DoD Survey indicate that among enlisted Army personnel, more than two out of three experienced some separation in the previous year. Army enlisted personnel reported a mean of 5.3 months of separation in the previous twelve-month period. The comparable figure for Navy and Air Force enlisted personnel is 6.1 and 4.1 years, respectively (Table 1, Sec. 1).

Szoc (1982) found that separations and moves had a significant impact on retention in his study of Navy enlisted personnel and officers. In contrast to the curvilinear pattern for relocation described above, separations from the family had a linear effect on retention: as separations increased from hardly any to "around 75 percent of the time," the proportion of enlisted personnel leaving increased steadily from 17 to 30 percent. For officers, the linear effect was present, but smaller: 17.7 percent left when there were "hardly any" separations, and 28 percent left when separations occurred 50-75 percent of the time. Interestingly, however, among those officers separated more than 75 percent of the time, the percentage leaving dropped to 11 percent. When questioned directly, both enlisted personnel and officers indicated that family separation due to

deployment was one of the most important factors in their decision to leave: for officers, it ranked first; for enlisted personnel, second after total family income. Path analyses of these data underline both the importance and complexity of family separation in retention. These analyses found that spouse opinion with regard to retention was the single most important factor in deciding to leave. Spouse decision, in turn, was influenced by more use of Navy services, greater YOS, and satisfaction with separations due to deployments. This last variable, it should be noted, is perceptual and not behavioral: it appears from this finding and other data (e.g., Arima, 1981) that how separations are viewed may be as important--if not more important--than actual time away. Indeed, among those who left the service, separations were viewed as far more problematic than among those who stayed, but the actual amount of separation was slightly higher among stayers.

Too long, often uncertain, and "unproductive" duty hours are frequently reported as affecting family well-being. Ten- to twelve-hour days and weekend duty are not unusual. For instance, Schneider et al. (1986) report in their evaluation of cohort studies that many wives complained that their husbands were attending to "busy work" during parts of the duty day and that in many units soldiers were held late for arbitrary reasons. The effects of this feature of military life have not been explored at all.

Job Characteristics

Features of one's Army job represent important aspects of the Army environment. Pay, fringe benefits, and working conditions and their effects on Army outcomes have been extensively investigated. Most of these studies exclude family factors (e.g., Allen, 1981).

Many studies have focused on pay. These studies, which have been reviewed by Stolzenberg and Winkler (1983), indicate that pay is a critical factor in retention, with elasticities averaging 2 (e.g., Arguden, 1985; Marcus, 1984).⁶ Several studies suggest that pay may have a perceptual component; in some cases the absolute amount of compensation may be less important than its perceived adequacy (e.g.,

⁶Elasticity of 2 means that a 1 percent increase in pay would result in a 2 percent increase in retention.

Fletcher and Giesler, 1981; Porter and Steers, 1973; Farkas and Durning, 1982) or whether it meets the workers' expectations (e.g., Porter and Steers, 1973). Differences between officers and enlisted personnel in the importance of pay in predicting retention add further weight to the notion that perceived income adequacy may be a key factor. Typically, pay is a more important predictor for enlisted personnel than for officers, who may consider their pay adequate, and for whom patriotism, interest in the work, or quality-of-life factors dominate in predicting retention (e.g., Sterling and Allen, 1983, and Faris, 1984).

A large literature on the effects of bonuses on retention or extension of duty indicates that they can be important in improving military outcomes, (e.g., Enns, 1975, 1977 and Ozkaptan et al., 1984). Stolzenberg and Winkler (1983) argue in their review of these studies that bonuses are more effective than other payments because they are paid out in a lump sum, which makes their value "thoroughly unambiguous" to the recipient. They contrast this with the difficulties inherent in placing a value on other forms of pay and benefits, which are often grossly undervalued (Chow and Polich, 1980).

Job satisfaction has also been studied to determine its effects on military careers. Kohen (1984) found higher job satisfaction leads to lower attrition. Lakhani et al. (1985) found that job satisfaction contributes to the willingness to extend tours in Germany. And Allen (1981) found that job satisfaction was a significant factor in career orientation among Army enlisted personnel. Combined with years of service and age, the three variables accounted for 48 percent of the variance in career intent, with job satisfaction contributing 9 percent in unique variance. For officers, job satisfaction correlated with career intent and contributed 6 percent of unique variance.

Allen and Bell (1980) found that the three job characteristics they measured--variety, meaningfulness, and personal control over the work--were each correlated with job satisfaction at a moderate level. Each was also related to overall satisfaction with the Army, though the correlations were somewhat reduced. Orthner (1980) found that for his Air Force respondents, all of whom had at least one dependent, satisfaction with supervisor treatment was a significant predictor of retention. Szoc (1982) found through his path analysis that job

satisfaction was not as important as spouse intention in its effect on reenlistment intention. Civilian data confirm the importance of job satisfaction in turnover and absenteeism (Porter and Steers, 1973).

The literature on compensation and job characteristics demonstrates quite clearly that these factors are important in attrition and retention. Our review of Army policies (above) has shown that these factors are important as well. A key question then is the relative importance of the factors in explaining military outcomes. A number of studies suggest that the weights assigned to these factors are not stable. Several studies (e.g., Chipman and Mumm, 1979; Fletcher and Giesler, 1981) find that pay dominates decisionmaking in the early years, but over time declines in importance relative to quality of life variables, such as deployment time, duty station choice, and housing. This pattern may reflect the fact that over time, promotions serve to increase pay rate and, no doubt, perceived pay adequacy. When pay crosses some adequacy threshold, other factors may dominate decisionmaking.

Summary. Location and job characteristics appear to bear on family life and Army outcomes. Numerous studies find that rotation policies create problems for family members and contribute to reduced retention. Relocations and separations have become increasingly difficult as the percentage of working military spouses has increased. Lack of employment opportunity for spouses has become the most frequently noted moving problem identified by military personnel (1985 DoD Survey).

Concerns about spouse employment and family matters more generally have had a noticeable impact on Army operations. For example, one of every six Army colonels hand-picked in 1981 to command troops turned down the honor: "Unheard of in my history," said General E. C. Meyers, Army Chief of Staff, of commands being turned down for such family reasons as wifely demands to stay put. "The biggest change in the value system is the working wives. I really don't see the near-term solution to that" (Wilson, 1981).⁷

⁷The proportion of colonels turning down a command peaked in 1981 in part due to an Army shift to longer command tour lengths. In subsequent years, that proportion lowered to about one in 13 colonels turning down a command.

Limited data also suggest that how these policies are perceived may affect Army outcomes. For example, satisfaction with the length of separation may be as important in career decisionmaking as the actual number of days away. These data are encouraging, suggesting alternative approaches to improving family life and Army outcomes, as we discuss in some detail below.

The power of compensation and other job factors appears to decline over time, perhaps as income adequacy is achieved and family needs become more salient. A clearer understanding of the importance of job characteristics on Army outcomes must await a discussion of another key aspect of military life that may affect these outcomes, quality of life and family programs. These are discussed next.

Quality of Life and Family Programs

In exchange for the high degree of commitment the Army demands of its members, it provides in return an array of services to personnel and their families. These services can be divided into two categories: *general* services, which include those benefits and services that are designed to be available to and used by all members of specified groups, and *targeted* services, those services designed to be used by those with special problems and needs. The general category is dominated by six services: health services, housing, commissary and exchanges (PX), recreation, and child care. The second category includes a range of services, including counseling, family advocacy, substance abuse programs, and financial planning.

Whereas services have been divided in other ways, e.g., benefits, health and housing, and family services, we believe our breakdown has the most potential for illuminating service availability, use, and effects. The key distinction between general and targeted services is social acceptability: there is no stigma attached to availing oneself of general services. In contrast, use of targeted services implies some personal or family problem, even if utilized in a preventive way. Consequently, the issues surrounding the two service categories differ substantially. We expect clear differences in utilization rates, utilization barriers, and expected impacts.

Most studies of services have examined reported satisfaction with services and, for some, the relationship between reported satisfaction and specified outcomes. Little attention has been devoted to assessing actual service utilization and its effects.

General Services. Housing and health services contribute substantially to the military benefits package. Evidence cited above indicates that these aspects of military life become more important to career decisionmaking after the first term, when pay seems to dominate.

Little research attention has been devoted to other general services, and particularly their effects on military outcomes. We briefly discuss commissary; Morale, Welfare, and Recreation (MWR) services; and child care services here because some data exist and child care has been a growing issue as the number of employed spouses increases.

Health services. Health services are provided to military members under the Uniformed Health Services Benefits Program and to their dependents as well on a space-available basis. When dependents cannot be accommodated on post, they may use the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). CHAMPUS was designed to provide medical care through civilian facilities when care in military facilities is unavailable. It covers intensive care, surgery, room and diet, physical therapy, radiation therapy, drugs, medical equipment, and maternity. A deductible applies to CHAMPUS care which lower-ranked enlisted personnel may have difficulty meeting.

Medical care is considered one of the most positive aspects of military life. In a survey of Navy enlisted wives, in which respondents ranked 11 features of military life, dependent medical benefits were rated "most liked" by 28.1 percent of respondents. Another 27.8 percent rated these benefits second (Grace, Steiner, and Holter, 1976). This satisfaction has been found to translate into career intentions. In a study by Sterling and Allen (1983), satisfaction with Army programs and benefits was the most important predictor of Army career intention in a random sample of enlisted personnel (it was not as important for young officers, 01-03). Service satisfaction ratings were correlated at a moderate level across a range of services, including housing,

retirement, and child care, but for both officers and enlisted personnel, satisfaction with medical services was most highly correlated with career intentions. In a study of Army company-grade officers, medical care was considered an important influence on remaining in the Army (Army, Department of Personnel Management Development Directorate, 1973).

Despite the apparent accolades it receives, health care for military dependents has its critics. CHAMPUS is very complicated (*Army Reserve Magazine*, 1982) and service often is hard to obtain. CHAMPUS, in the words of *Army Reserve Magazine*, "often is not held in the highest regard by families of active duty servicemen." Military facilities designed to accommodate combat-related needs often find themselves weak in the areas needed by families--particularly pediatric and gynecologic services (Warren, 1986).

Moreover, difficulties in receiving care for oneself or family members may reduce time available for duty. Savell, Rigby, and Zbikowski (1982) found in their study of first-term soldiers that absences from duty were most often for medical and health reasons, with women accounting for significantly more time lost in this category than men. Unfortunately, because the specific ailment or problem did not have to be identified, the data do not illuminate the nature of the problems or the effects of medical care received. The study does point out, however, that medical care availability and quality of life have the potential to strongly affect time available for duty, a key component of readiness.

Housing. Military housing is a benefit that is at once sought after and disliked. The financial benefits of on-post housing are substantial and often crucial to the economic well-being of lower-ranking personnel. At the same time, the quality of this housing stock is often so poor (Warren, 1986) that personnel attitudes toward this presumed benefit are negative.

Doering and Hutzler's (1982) data from the 1979 DoD Survey show that of those personnel living in civilian housing, 43 percent of enlisted and 53.5 percent of officers do so because they prefer it. For both groups, this represented the most often cited reason. Of the enlisted personnel, 23.7 percent gave "other reasons" next most often,

while officers listed the nonavailability of military housing as the second most common reason for living in civilian housing. Levels of reported satisfaction with housing were much higher when personnel were living in civilian housing.

Hiller (1982) found that receipt of cash allowance for quarters was associated with higher reenlistment intentions among Army second-termers. His explanation for this effect was that off-base civilian housing is preferred to on-base military housing. Hiller's interpretation is consistent with the findings of other studies of housing attitudes. For example, Farkas and Durning (1982) found that 29 percent of enlisted Navy personnel and 17 percent of officers considered adequate housing a serious problem. In this same study, living in Navy housing was associated with less perceived community and spousal support and reduced mental satisfaction. However, these results must be interpreted cautiously: the data do not take into account the fact that Navy housing is disproportionately inhabited by low-income enlisted personnel, who tend as a group to be lower on these measures.

Adequacy of Army family housing and troop housing were found to be moderately correlated with career intention among enlisted personnel in a study by Sterling and Allen (1983). Housing was not a significant predictor of overall satisfaction for officers in this study. Fletcher and Giesler (1981) reported that in their study of factors affecting Naval retention, quality of life factors, including housing, were significant contributors to increased retention probability among career (post first-term) personnel. Allen and Bell (1980) found that perceived safety in one's quarters, an important component of housing adequacy, was significantly correlated with level of satisfaction with the Army. When Army life problems, including safety in quarters, were added to an equation that included job characteristics, organization climate, and expectations to predict satisfaction, Army life problems improved predictions, but only slightly, as discussed above.

Housing as a general service does not have the halo accorded medical care. Nowhere is housing described as a positive feature of the military, as medical care often is. More often, it appears to contribute to marital and family dissatisfaction (e.g., Farkas and Durning, 1982). Although no studies address the role of housing in

readiness, the effects of inadequate housing on member morale may well have a negative effect on personnel readiness.

Commissary. Commissary privileges are widely used and generally well regarded. The 1979 DoD Survey found that more than 80 percent of enlisted personnel and 95 percent of Army officers and their families reported using the commissary in the previous month. Although some military family members have urged that commissary services be "cashed out" to provide personnel greater choices in purchasing (e.g., Himaka, 1977), the commissary is a popular service. In a study of Navy wives, exchange and commissary services were ranked second in "most-liked" things about the Navy by 24 percent of wives (Grace et al., 1976). However, few data exist concerning the importance of the commissary in military outcomes. At least one study of retention suggests that commissary benefits are undervalued, so that "cashing out" might be an effective retention tool (Chow and Polich, 1980).

MWR services. The Army provides a variety of recreation services under its Morale, Welfare, and Recreation (MWR) program. Included are indoor gym activities, bowling, outdoor athletic and recreation activities, arts and crafts, music and theater, library, clubs, and youth activities. A 1984 survey of the MWR program (U.S. Army Community and Family Support Center, 1985) revealed that use of MWR recreation services is widespread but not intensive: typically an activity is used by about half of the respondents, but most users take advantage of the specific program only a few times a year. A small group--between 10-20 percent--could be considered "regular users," participating more than once a month. Use by rank appears to vary somewhat by activity: for example, 69 percent of E1-E4s never use the arts and crafts program, but E1-E4s are more likely than E5-E9s or CO-WOs to use the club program one or more times a month.

Substantial percentages of respondents, 30-50 percent depending on activity, report that they prefer and use civilian facilities in lieu of Army-provided ones. Three reasons are typically given for this choice: to get away from the military environment, to try new places, and to benefit from the better facilities and amenities available in the civilian sector.

Youth activities tend to follow a slightly different pattern. According to the adult respondents, 64 percent of their children never use or participate in youth activities. The most common reason offered for nonparticipation is involvement in school and religious activities. Of the 36 percent of respondents' children who do participate, 42 percent are involved four or more hours weekly. This contrasts sharply with the infrequent use patterns reported by adults, and can probably be accounted for by the fact that many youth activities involve classes of instruction and organized sports.

The MWR survey's assessment of satisfaction indicates that, in general, users report being fairly satisfied with MWR services. For example, among those with any participation in the outdoor recreation program, 10.2 percent reported being very satisfied, 46.8 percent were satisfied, 30.4 percent were neutral, and 12.5 percent were dissatisfied or very dissatisfied.

The meaning and importance of such satisfaction levels are unclear, however, for several reasons. First, with a large measure of self-selection, one should expect rather high satisfaction levels. Second, many respondents are aware of and utilize civilian recreation services. Finally, very little research has examined the effects of utilization of recreation services or evaluation of them as factors in military outcomes.

In studies of most-liked and least-liked aspects of the Army these services are not mentioned (e.g., Army, Department of Personnel Management Development Directorate, 1973). Nor did they emerge when Navy wives were asked to rank their top three Naval benefits (Grace et al., 1976). Sterling and Allen's (1983) study of factors in Army career intentions is one of the few multivariate studies to include MWR programs. Their findings indicate that while general program satisfaction was the most significant predictor of career intentions for enlisted personnel, arts and crafts--the only MWR program to be included--did not make a significant contribution, either directly to career intention or indirectly to general program satisfaction. For officers, arts and crafts and dependent youth activities were the most important predictors of general program satisfaction. However, general

program satisfaction. However, general program satisfaction was not a significant contributor to career intention, as discussed above. Smootz and Jones (1980) did find in their survey of E1-E4s at Fort Hood that satisfaction with off-duty on-post activities ranked third in importance in predicting career intent, accounting for 16 percent of the variance. No studies of the relationship between MWR service use and readiness are available, despite the fact that MWR survey respondents frequently listed readiness-related outcomes, such as improved morale, improved reaction time, and increased job skills as potential benefits of MWR programs.

In summary, MWR programs are fairly widely known and used by many military personnel. However, use is sporadic, and civilian services are often preferred. The effects of these programs on readiness and retention are unknown.

Child care. The relationship between general services and military outcomes is intuitively the strongest with regard to the effects of child care services on readiness. As the number of single parents and dual career couples increases, child care availability and reliability may become a key factor in explaining absences and lost time. Data from a 1984 Army survey found that more than 61,000 enlisted and 10,000 officer families lost job or duty time or missed an Army-sponsored activity because of difficulty finding child care (Jones and Butler, 1980). Savell et al. (1982) note that over a four-week period, over 10 percent of a sample of first-term soldiers were absent from duty because of a need to provide home or family care.

Army child care services are used fairly intensively by a substantial number of families. The 1984 survey of MWR programs (U.S. Army Community and Family Support Center, 1985) revealed that 13 percent of all respondents (unselected for marital or parenting status) used Army Child Care services at the time of the survey. An additional 8 percent who did not use Army Child Care Services used other child care providers. Satisfaction with Army Child Care is quite low. Less than half of users reported being very satisfied or satisfied with Army Child Care Services.⁸ Some insights into the causes of dissatisfaction can be

⁸Satisfaction with Army Child Care was quite low when this survey was conducted. Significant action has been taken since that time to improve child care services and facilities, and new measurements need to be taken to assess current satisfaction with this service.

gained from examining the reasons respondents endorsed for using civilian child care. The top three reasons offered were: convenience of operating hours, closeness to home, and high quality of staff. Among the reasons offered for not using Army Child Care Services more often were high costs, distance from home, facility crowding, and poor facility quality. Another reason frequently offered for not using these services more often was lack of availability.⁹ Family circumstances may aggravate dissatisfaction with child care. Spouses already frustrated by difficulties locating work are unlikely to respond well to a lack of child care or poor quality care when a job is finally located.

Schools. Department of Defense Dependent Schools (DODDS) are operated by the DoD for command-sponsored dependents overseas. The DoD operates 270 schools (kindergarten through grade 12) in 20 countries around the world, with a total enrollment of approximately 142,000 pupils. Although located in overseas areas, DODDS ranks as the ninth largest American public school system with five geographic regions: Atlantic, Germany, Mediterranean, Pacific, and Panama.

Data from the 1985 DoD survey indicate that satisfaction with DoD schools is mixed. Spouses of officers evaluate the schools more negatively than spouses of enlisted personnel (Defense Manpower Data Center, November 1986). A survey of parents of children in DODDS finds that parents fault DODDS for inadequate funding and overcrowding but do not regard drugs or discipline as problems. Level of satisfaction is higher among parents with elementary children and those living in the Pacific or Panama and is lower among those with high school children and those living in Germany (Bartell, O'Mara and Hooke, 1983).

The High School and Beyond survey of DODDS seniors (DoD, 1981) revealed that students share their parents' complaints. DODDS students were substantially more likely than a comparison group of U.S. seniors to rate the condition of their school buildings and library facilities as inadequate. Overall, DODDS seniors rated their schools less positively than the public school comparison group.

⁹The 1985 DoD Survey of Spouses reports a somewhat higher (66 percent) level of satisfaction with overall quality of on-post day care services. Consistent with the 1984 MWR survey, the lowest levels of satisfaction were expressed relative to quality of staff and education programs, hours of operation, and capacity of centers (Defense Manpower Data Center, November 1986).

The negative attitudes of parents towards their children's schools may, however, be common to all parents. A comparison with Gallup data collected from civilian parents revealed that DODDS parents were as satisfied as civilian parents with the quality of their children's schools (Bartell, O'Mara, and Hooke, 1983).

Attitudes toward DODDS quality appears to have little effect on manpower outcomes. Seventy-seven percent of respondents in the Bartell et al. study reported that DODDSs had no influence on their reenlistment intention, with these percentages rising with higher rank and older children.

The family multiplier. The literature on general services suggests that at least some of these services have a bearing on military outcomes. In some cases, such as child care, the relationship appears direct: problems with child care reduce the time available for work. In others, the relationship may be more complex: satisfaction with a particular program appears to affect, if only slightly, overall satisfaction, which in turn may influence career decisionmaking. The strength of this effect may be influenced by family status. There is scattered evidence in the literature that when service attitudes are negative, families tend to have a multiplier effect.

One study (Allen and Bell, 1980) found that the correlation between reported problems and level of dissatisfaction with the Army was stronger for married personnel living with their families. Mohr et al., (1981) found that married Naval personnel viewed sea duty more negatively. And Goodstadt et al. (1978), in studying post-training enlisted attrition processes, found that for those Army personnel who were experiencing adaptation difficulties, being married produced a multiplier effect: the negative impacts of job conditions, a dysfunctional organizational climate, and unmet expectations were considerably worsened when married enlistees could not spend planned off-duty hours with their families because of extra work duties. Other studies (e.g., Army, Department of Personnel Management Development Directorate, 1973; Allen and Bell, 1980) also find that problems and policies impact more heavily on married personnel.

These results make intuitive sense at two levels. First, military personnel may be more accepting of inadequate conditions or services for themselves than for their spouses and children. Second, when family members find conditions unacceptable as well, they may pressure the service member. The dynamics of these effects are unknown, however, and the multiplier effect is essentially untested. A lack of critical data on utilization of services and on attitudes of family members toward policies and services leaves us with only speculations on these important issues.

Targeted Services. Targeted services, e.g., counseling, family advocacy programs, financial management assistance, and drug and alcohol abuse programs have been adopted by all the military branches as a response to the actual or potential family problems created or exacerbated by military policies--most notably, frequent moves, deployment, and emergency readiness. Army Community Services, for example, provides Information and Referral, Relocation, Army Emergency Relief, Financial Assistance, Child and Spouse Abuse Counseling, Family Member Employment and Relocation Assistance Programs, among others.

Remarkably little research has explored the effects of these programs on reducing the problems they were designed to address. Nor has there been much research concerning their effects on military outcomes. A few studies have looked at specific targeted services. Szoc (1982), for example, found that cost, availability, and quality of counseling services were (separately) ranked among the top 35 reasons for staying in the Navy by both enlisted personnel and officers who stayed. Interestingly, enlisted personnel ranked cost at #28, availability at #30, and quality at #33, while officers who stayed rated quality first (#29), cost at #32, and availability at #33. However, when these factors were included in covariate analyses along with spouse attitudes, general services, working conditions and family factors (e.g., relocations and separations), they made almost no unique contribution to retention decisionmaking. Other studies suggest that targeted services may have a very slight effect on military outcomes, either through their relationship to satisfaction with the military or directly. Sterling and Allen (1983), for example, found that general

program satisfaction was the best predictor of career intent in their enlisted sample. Satisfaction with substance abuse programs, in turn, was by far the best predictor of general program satisfaction. Satisfaction with substance abuse programs also had a very small, but direct, effect on career intent. Among officers, however, satisfaction with substance abuse programs was slightly negatively related to general program satisfaction, which did not predict career intent.

The effectiveness of formal wives' support groups in providing information and assistance to family members was assessed as part of a field evaluation of the Army experiment with a new Unit Manning System whereby units (companies and battalions) are rotated in groups including family members. Formal wives' support groups were found most effective when organized at the company level and when they had a clearly defined task or mission, i.e., help in the rotation. Concerns about fraternization, however, limited participation in such groups, especially on the part of enlisted wives (Schneider et al., 1986).

These limited data suggest that service availability, quality, and cost may have some bearing on military outcomes. These relationships have not been explored systematically or in much detail. One reason is, no doubt, the lack of data on service utilization. If we are to know the effects of a particular service and how it is viewed by users, we must know who used a service, how intensively, and for what reason. Studies of service use often treat services as a group, when their impacts may be very different. And they fail to distinguish users from nonusers. Consequently, data on satisfaction are of questionable value. What does it mean, for example, if someone who has never used a relocation program indicates he is "very satisfied" with it? Nor does the literature address the issues of selective use and impact of targeted services. Do the weakest or the strongest families use these services? Do they serve to strengthen families and restore them to effective functioning, or do they temporarily "prop up" dysfunctional ones? These crucial issues have not been addressed, but deserve careful consideration.

Policy Alternatives. The emphasis on the provision of many services as a means of addressing family strains caused by Army policy may have eclipsed other ways to reduce these strains. Several

admittedly isolated studies suggest that perceptions may be as important, if not more important, than reality in contributing to family strains. By addressing these perceptions, the need for services may be reduced.

Hunter (1979) addresses this issue directly in her paper on family power. Drawing upon the work of Renshaw (1976), she concludes that if military family members perceive that they have some power, even if this power cannot determine final outcomes, "they will cope better with the unchangeables of military life" (p. 17). Hunter suggests that providing more information and some level of participation by spouses and other family members might improve morale, readiness, and retention, and reduce the need for stress-induced services.

Creel's (1981) survey of 100 military psychiatric outpatients and nonpatient controls supports Hunter's view. He found that perceived loss of control brought on by relocation caused significant stress in both groups. Creel suggests that such stress might be reduced through actions designed to increase perceived control. He suggests, for example, that mechanisms be set up so that soldiers and their families could offer suggestions concerning local and more distant military policies and procedures. The establishment of community groups designed to provide consultation to the commander would be one such mechanism. Personal involvement in the assignment system has also been proposed for the Air Force as a means of improving family functioning and satisfaction (USAF-MPX, 1979).

Some studies on military families also lend limited support to Hunter's notions. A study by Farkas and Durning (1982), for example, found that naval separations due to deployment were better accepted by wives than those that involved dry dock duty. While the authors could not explain this finding, it seems plausible that in the latter case the separations were viewed as less necessary. Other studies suggest that efforts on the part of the commander to inform families of the need for particular actions or that show respect and concern for families are generally well-received and tend to promote attitudes more supportive of mission needs (e.g., Dickieson, 1968; Robarts, 1980; Mohr et al., 1981).

These fragmented data suggest that family support programs might be supplemented by measures to directly address some of the perceptions that may translate into dissatisfaction on the part of military personnel and family members. For example, more intensive efforts might be made to inform military members and spouses as well about the need for a just-announced or approaching separation. Such communications could explain in clear (nonmilitary) language why the mission could not be carried out in home territory, why particular specialists must go, and what unique contributions each will make while away. Even if security concerns preclude full disclosure, much could be communicated in an effort to convince members and families of the necessity of the action.

This and other innovative approaches to addressing the strains of military life deserve more thorough and rigorous assessment. The Army's sponsorship program represents a promising, nonprofessional approach to reducing such strains. It is less costly and less stigmatizing than counseling that might be sought after a failure to adjust. Yet it remains largely unimplemented.

Family Responses

As suggested above, how the family responds to the press of the environment, as well as the features of that environment itself, have been found to predict military manpower variables. One response that has been examined fairly extensively in the literature is the perception on the part of one or more family members of strain or conflict between the demands posed by the military job and the needs of the family unit. Such conflict is not unique to military jobs or military families; indeed, it is conceptually present for all workers who also have families. For male workers, wife and job are in competition for time and commitment (Hunter, 1979); for female workers, these conflicts are felt with even greater immediacy, particularly when there are children. The unique demands and circumstances of a military job may increase this strain to a point where it seriously affects quality of life, perceptions of the military, and readiness.

Several studies have shown that as perceived strain or incompatibility between job and family increases, family members are more likely to exert pressure on the military member to leave the service. Such pressure has been found to be a key predictor of satisfaction with the military (Farkas and Durning, 1982) and a factor in reducing intention to reenlist (Jones and Butler, 1980; Grace et al., 1976; Szoc, 1982). For married Navy personnel on sea duty, greater perceived incompatibility between work and family roles was associated with more role strain as indexed by lower satisfaction with the Navy, less job satisfaction, and reduced reenlistment probability (Jones and Butler, 1980).

Several methodologically strong studies suggest that a good deal of the strain experienced by military families comes to be reflected in spouse attitude concerning the desirability of reenlistment. In turn, spouse reenlistment attitude is the single best predictor of reenlistment intent (Szoc, 1982; Orthner, 1980).

Numerous studies in which spouses were queried directly reveal that spouses vary considerably in their attitudes toward the military and toward reenlistment. This variance no doubt accounts for the fact that while in the aggregate marital status has little bearing on career decisionmaking, in individual instances strong spousal attitudes may determine a reenlistment decision.

How spouse attitudes are formed and come to influence member retention behavior is a complex process that is not clearly understood. Opportunity samples of wives suggest that these women perceive themselves as having considerable influence over their husbands' attitudes and behavior (e.g., Thomas and Durning, 1980). At the same time, they report that their husbands are their best source of information about the military (Grace and Steiner, 1978). Some wives have indicated reluctance to exert their point of view (Thomas and Durning, 1980). In one study (Grace et al., 1976), 43 percent of the Navy wives queried said they would not encourage their husbands to reenlist. For some this reflected their view that their husbands should make this decision independent of their influence. The results of these studies indicate, however, that most wives do make their views known, or

perhaps husbands and wives jointly reach agreement, so that the attitude belongs to both. Those studies in which military members are asked about their spouses' attitudes produce results very similar to those found when spouses are queried directly. Unfortunately, there is little work that uses data on both spouse and military member in efforts to explore these relationships.

Although the dynamics of spouse attitude formation and transmission remain obscure, their correlates are better known. Available research finds that the key factor in determining the spouse's opinion towards her husband's military career is her own employment status; working wives, particularly those working in professional jobs (Mohr et al., 1981; Grace et al., 1976), have been found to be less satisfied with the military and to exert more pressure on their spouses to leave. Numerous factors may explain this relationship:

- Working wives have more power in the marital relationship (Wolfe, 1959) and thus may be more willing to express an independent opinion.
- A job, particularly a professional job, significantly increases the family costs of spouse military service. Professional jobs are harder to get in a new location, and reward skills learned on the job far more than nonprofessional jobs, where skills are more "portable" (Waite and Berryman, 1985). At the same time, some of the benefits of military life, such as wives' social events, are less appealing to those with both less time available and other sources of social contact (Grace et al., 1976).
- Employment may reduce the time available for participation in military-sponsored activities designed to help spouses adjust and to explain the need for particular military policies. Attendance at such events was shown in one study (Mohr et al., 1981) to be associated with more support for a Naval career.
- Employment, particularly professional employment, may reflect more "liberated" attitudes, which in turn may make a woman more sensitive and offended by the "dependent" status into which military wives fall (USAF-MPX, 1979; McCubbin and Marsden,

1978). Studies such as Grace et al. (1976) indicate that both employed and nonearning wives are at best uncertain of the military's interest in and respect for them (e.g., Robarts, 1980). One study found that younger Naval officers perceive their higher-ups as unsympathetic to liberated wives (Derr, 1979).

To a large degree, how spouses feel about reenlistment reflects their perceptions of the degree of compatibility between their husband's military job and the demands of family life. A univariate analysis found that Army wives least liked separations, relocation, housing, and Army protocol (Army, Department of Personnel Management Development Directorate, 1973). Orthner (1980) found that spouse support was highest when the husband's income was perceived to be adequate, the job was viewed as not too disruptive of family life, if the marriage was strong, and there were good community ties. Other studies have pointed as well to the importance of perceived income adequacy as a mediator of stress. For example, Farkas and Durning (1982) report that in a small survey of Naval personnel with dependents, adequate income level served to buffer the effects of interference and conflict between Navy job and family life. This finding that interference can be traded for benefits has considerable intuitive appeal. The mutual commitments of the military establishment and its families must achieve a fair balance, particularly as a military career becomes less of a calling and more of a job. Military members are expected to make a strong commitment to the military that is not asked of employees in the civilian sector. In turn, the military promises a reasonable quality of life and a degree of concern about members' welfare that exceeds that of civilian employers. When this promise is breached, or is perceived to be breached, personnel become unhappy. Inadequate housing, insufficient services, or job demands that are viewed as unreasonable or unnecessary may lead personnel to feel that the military is not keeping its share of the bargain.

Scattered findings in the literature suggest that women--both as spouses and military employees--may be particularly sensitive to this balance. For example, Grace et al. (1976) report that 33 percent of a

sample of Navy wives felt that the amount of sea duty their husbands served was unnecessary. Orthner (1980) found that among married female Air Force personnel, job satisfaction was associated with perceptions that the Air Force treats them fairly as women. Spouse and superior support, the two most important contributors to job morale for male personnel, were less important in explaining job satisfaction among the women. Moreover, married female Air Force personnel were much less satisfied with their treatment by superiors (45 percent) than married male personnel (62 percent).

These concerns, we believe, arise from doubts on the part of women about the degree to which the military respects women as members and as spouses. Such doubts have been expressed directly in more than one study (Grace et al., 1976). Those in a position to expect respect--professionally employed women--have been repeatedly found to be less supportive of a husband's military career (e.g., Szoc, 1982).

CIVILIAN ENVIRONMENT

According to our conceptual framework, the civilian environment may affect family members' perceptions of the quality of their lives in two ways: through provision of quality of life services that may be unavailable or unacceptable on-post, and through job, cultural, recreational, and educational opportunities for family members. The literature on military families has paid little attention to the civilian sector and its potential role in improving the quality of life for military families, yet the very few studies we have found on this interaction serve to point out its importance. In larger civilian communities, military families apparently rely on the civilian economy for a significant amount of services and amenities. The differential importance of the civilian milieu has been pointed out in numerous places in the literature, and quantified to some degree in Orthner (1980) and Orthner and Bowen (1982) where it is apparent that OCONUS, families rely far more heavily on military institutions to provide the amenities and services that they derive from the civilian sector when they are stationed CONUS.

Which aspects of the civilian sector are the most important in improving quality of life and for what reasons remain unclear. We know that job opportunities for spouses represent an important civilian characteristic, but no study explores these relationships systematically. The Army's MWR survey (U.S. Army Community and Family Support Center, 1985) indicates that access and quality influence the choice of military or civilian services. The opportunity to try new places and get away from the military environment that civilian services afford may make them somewhat more attractive.

The literature suggests a number of reasons why military families may prefer targeted civilian services; key among them is the confidentiality they afford. Numerous anecdotal studies (e.g., Fournier, 1977; Stanton, 1976; Schapp, 1981) indicate that wives fear that use of targeted military services may compromise their husbands' careers because the commander does or can learn of their service use and hence their problems. However, one study of Canadian military families revealed that, among those who knew of services (many did not), military members preferred civilian services because of concerns about career impact, while their wives preferred to seek formal help within the military subculture (Van Vrankden and Benson, cited in Beattie, 1981).

Whether a family lives on-post or off-post may also figure in service use. Those who live off-post cite privacy as a key reason for doing so, while acknowledging that off-post living isolates them from the military community, a fact that may take on added prominence if there is a family separation. Once off-post, the desire for privacy that motivated their move and difficulty in getting to the post may reduce family members' use of on-post services. Conversely, lack of transportation is often a reason offered by those living on-post for failure to use civilian services or amenities (U.S. Army Community and Family Support Center, 1985).

Far more needs to be known about civilian service utilization by military families. Such knowledge could have immediate policy implications for the Army. For example, if most families who need child care seek it out in the civilian sector whenever it is available, the Army could choose to: (1) offer it only where it is not available "on

the economy;" (2) discover what features make civilian care more appealing than similar military services, and compete more effectively with civilian providers by offering similar (or better) features; (3) target its child care services to those subgroups who prefer the Army service or who are not well-served by civilian services (e.g., ethnically mixed families with non-English-speaking wives).

EVALUATIONS OF MILITARY LIFE

Satisfaction

Satisfaction levels in the Army vary with rank and status. For example, only 40 percent of E1-E3 rated themselves above the midpoint on the seven-point general satisfaction scale on the 1985 DoD Survey. Among E6 and above, however, the comparable figure was 73 percent (Defense Manpower Data Center, 1986). Among officers, about two-thirds of O1s and O2s reported a level of satisfaction above the midpoint, while among O5s and higher, over 86 percent reported this level of satisfaction.¹⁸ These findings reflect two important psychological facts of human behavior. First, people tend to accommodate to and find satisfaction in most situations in which they choose to remain. Second, those who do find a situation intolerable tend to leave it, so that when a study explores satisfaction with a cross-sectional approach, it doesn't catch the least satisfied (Stolzenberg and Winkler, 1983). Hence, such studies may underestimate the level of dissatisfaction.

Research findings are fairly consistent in indicating that for married male members, satisfaction seems to have two components: (1) a job component, which includes supervisor behavior, perceived autonomy, and relationships with peers (Sinaiko et al., 1981; Farkas and Durning, 1982; Orthner, 1980) (plus for officers only, a patriotism component) (Sterling and Allen, 1983), and (2) a family component, which represents the family's level of satisfaction with the military way of life (Allen

¹⁸There was a marked increase from 1979 to 1986 in the level of "satisfaction with the military as a way of life" at all grades: E1-E3s rating themselves above the midpoint on the identical seven-point general satisfaction scale increased from 17 percent in 1979 to 40 percent in 1985; the increase was lower but still significant for E6 and above (54 percent versus 73 percent) (Doering and Hutzler, 1982, and Defense Manpower Data Center, 1986).

and Bell, 1980; Lakhani, 1985). For example, Farkas and Durning (1982) found that 54 percent of the variance in general satisfaction with the Navy could be predicted by only two variables: family pressure to leave and perceived supervisor support.

Several studies note that aspects of organizational climate may be important in satisfaction. Allen and Bell (1980) found, for example, that O'Mara's (1979) four dimensions of climate were significant contributors to satisfaction in their secondary analysis of the Army Life-78 data (O'Mara, 1979). These dimensions, some of which are closely related to our definition of readiness, included good unit-level communication and decisionmaking, high unit status, and personal motivation for the job and the unit's mission.

Allen and Bell (1982) found that job characteristics, organizational climate, and training expectations jointly accounted for 45 percent of the variance in job satisfaction among Army personnel, and 30 percent of the variance in satisfaction with the Army. Adding perceived Army life problems (indexed by "Is health care adequate?" "Can you live on your Army salary?") improved predictions, but only slightly.

The findings of several studies converge to suggest that family member (spouse) satisfaction is the product of the perceived degree of interference of the military job with family needs and the extent to which family members are able to meet their own needs in the military environment (e.g., Farkas and Durning, 1982; Szoc, 1982). This latter point is especially salient for working wives; their consistently lower levels of satisfaction no doubt reflect the greater difficulty they have in meeting their own needs as compared with nonemployed wives, whose needs may be merged with those of their husbands' to a greater degree.

Value of Perceived Alternatives

Weighing satisfaction with one's present life situation against the imagined satisfactions of another is a critical process in making decisions about life changes. Lack of satisfaction coupled with the view that job opportunities outside the military are few and poor may result in a decision--albeit an uneasy one--to remain in the service. Over time, the level of satisfaction may increase to rationalize this decision, or it may remain low.

Only a few studies have included perceptions of civilian alternatives in analyzing military career decisions. The Army Department of Personnel Management Development Directorate (1973) found that in a sample of 1,600 company-grade Army officers in the process of separation, perceived civilian job opportunities were an important factor in decisions to leave. In a group of rather dissatisfied Army enlistees (E1-E4), most believed the Army to be less desirable than a job available in civilian life. The perceived value of alternatives was negatively correlated with career intent. Szoc (1982) found that those Naval personnel who left the service rated civilian alternatives as more attractive than those who stayed, and Faris (1984) found that those evaluating the military job in positive terms relative to a civilian job they might hold if they left the military are more likely to reenlist.

Numerous studies lend support to the idea that the actual civilian economy plays a significant role in military career decisions, both at the aggregate level and as perceived by individual decisionmakers. For example, Baldwin and Daula (1985b) found large effects of the unemployment rate on reenlistment after the first term. Cohen and Reedy (1979), in examining Naval reenlistment data over a 20-year period, found that civilian interest rates and unemployment rates had a strong effect on Naval reenlistments. Szoc (1982) found that a significant number of those with an intention to leave subsequently failed to do so. One reason suggested for this finding was the recession in the civilian economy that intervened between the time an intention was formed and a decision was made. High interest rates and high unemployment served to reduce the attractiveness of a nonmilitary career at that point.

RELATIVE IMPORTANCE OF FAMILY FACTORS AS PREDICTORS

The importance of family factors and quality of life programs relative to compensation, benefits, and job characteristics in predicting Army career decisions and readiness is not resolved in the literature. The lack of an unambiguous answer has several causes. First, as discussed above, many studies are limited to assessing the impact of one or possibly two classes of these factors on specified outcomes. Second, studies that include all factors are often

methodologically limited, so that the relative contributions of the various factors cannot be assessed.

To examine the relative importance of such factors, we tabulated data from the 1979 DoD Survey of Personnel. The following question was asked of all military members regardless of their stated reenlistment intent: "Below are some reasons military personnel may have for leaving the Armed Forces. If you have considered leaving the service at the end of your current term, please mark the *three most important reasons* why you would leave the service." We grouped the 17 reasons into six categories:

1. Family-related
2. Relocation-related
3. Military benefits
4. Compensation
5. Job-related
6. Other

Table 6 shows the reasons grouped by categories, and Table 7 shows the distribution of responses by service. "Compensation" was listed among the three most important factors in leaving by approximately one-third of respondents. The same was true of job-related reasons. As shown in Table 7, the relative importance of the two categories varied somewhat by service: in the Army and Marines, job-related reasons dominated compensation, whereas in the Navy and Air Force, compensation was checked more often than job-related factors. Family-related reasons were clearly less important, being checked by approximately 10 percent of enlisted respondents and 15 percent of officers. However, if family-related reasons are combined with relocation-related reasons (and there is ample research support for so doing), these two categories are jointly endorsed by approximately 20 percent of all respondents.¹¹

¹¹The findings of the 1985 Army Experience Survey of first-term and mid-career separatees are consistent with these findings. Given a list of 23 reasons for leaving and asked to rate each one on a five-items importance scale, 46 percent of respondents, on the average, rated "job-related" reasons "important" to "extremely important" and 43 percent rated "pay/compensation" reasons in the same way. In contrast, 28

Table 6

REASONS FOR LEAVING BY GROUP
(Officer and enlisted)

Family-related

- o Dislike family separation
- o Family wish to leave
- o Unreasonable work schedule and hours (officers only)

Relocation-related

- o Frequency of PCS moves
- o Dislike location assignment

Military benefits

- o Reduction in military benefits

Compensation

- o Low pay and allowances
- o Better civilian job opportunities
- o Education plans

Job-related

- o Disagree with personnel policies
- o Discrimination
- o Not enough advancement opportunity
- o Decline in personnel quality
- o Unable to practice job skills
- o Boredom with job
- o Dislike for job

Other

- o Retire
 - o Not eligible to reenlist
-

Table 7

MOST IMPORTANT REASONS FOR LEAVING
(Percentage of enlisted and officer respondents)

Enlisted Personnel

Category of Reason	Army	Navy	Air Force	Marines
Family-related	10	14	8	11
Relocation-related	10	5	7	6
Military benefits	11	13	18	10
Compensation	28	39	33	26
Job-related	37	26	30	36
Other	4	3	4	3
Total	100	100	100	100

Officers

Category of Reason	Army	Navy	Air Force	Marines
Family-related	14	22	13	18
Relocation-related	5	6	6	6
Military benefits	15	15	18	18
Compensation	27	27	24	24
Job-related	31	22	29	27
Other	8	8	9	8
Total	100	100	100	100

SOURCE: Computed by RAND based on the 1979 DoD Survey of Enlisted Personnel and Officers.

NOTE: Respondents were asked to name the three most important of a number of reasons, which were then grouped into the categories shown. Percentages may not always add to 100 because of rounding error.

Because of the phrasing of the question, the data provide no clue as to whether these reasons are additive or independent factors in deciding to leave. Nevertheless, the patterns that emerge, e.g., the relatively lesser importance of compensation to officers, and the greater importance to them of family factors in retention, reflect patterns seen elsewhere in the literature.

When one aggregates the results of the many studies that touch on these issues, some tentative conclusions can be drawn about the impact of family factors on military outcomes. Probably the most important is that family factors do play a role in attrition, retention, and readiness and that this role differs depending on the outcome considered. Although seemingly second to the role of job factors and compensation, the magnitude of the role of family factors remains uncertain.

The various studies help to clarify some of the circumstances under which family factors may dominate family decisionmaking. First, the impact of family factors is not static, but varies over time with stage in the family life cycle, investment in a military career, and pay. At the beginning of a military career, for example, when pay is low and many personnel are not yet married, concerns over pay dominate decisionmaking. As income increases over time, crossing an adequacy threshold, and as families are formed, pay issues become relatively less important compared with family and quality of life concerns. At some later point, when pay is higher and family lifestyle more settled, the appeal of retirement benefits may once again elevate the importance of compensation, although later in one's career the social demands placed on officers' wives may keep family issues in the forefront.

Second, the relative importance of family factors varies with the individual's family structure. Aggregate data indicate, for example, that working wives are less supportive of a military career, and that families tend to have a multiplier effect on dissatisfactions.

Third, family factors are likely to be more important for officers than for enlisted personnel, as the DoD Survey data discussed above indicate. There are numerous possible explanations for this effect, including income adequacy, differences in power distribution among

family members, and perhaps differences in the attractiveness of a civilian lifestyle as well. Very little attention has been paid to these issues.

Fourth, there are indications that the effects of family factors vary across job categories, although this has not been systematically explored. The major reason for these variations is that job categories vary in the degree to which they differ from civilian occupations, and in the time and stress demands they place upon soldiers and their families.

In sum, family factors, broadly defined, are significant in the decisionmaking of many personnel, and may dominate sometimes. We know something about the circumstances under which family factors are likely to be weighted more heavily. But we know little about how these family factors play out, and even less about whether they are relatively more important among high or low quality personnel. We are also quite ignorant concerning the effects of the many family support programs the Army offers.

Our review suggests, however, that these factors are likely to become more important to maintaining Army manpower. As more spouses return to paying jobs, as the quality of family life becomes a more salient concern, and as the role of the father expands beyond its traditional earning focus, quality of life and family factors are likely to become more important in influencing retention and readiness.

IV. CONCLUSIONS

The provision of support services for Army families has its roots in two very different perspectives regarding their function and aims. The partnership perspective recognizes the unique stresses imposed by military life on Army families, and seeks to reduce these stresses through the provision of a wide range of general and targeted services. Advocates of this approach seek to match services to family needs. In contrast, the utilitarian approach views family programs as a potential policy lever for increasing or stabilizing force levels and readiness. Supporters of this approach are inclined to provide resources to those services that have been shown to contribute to maintaining more military manpower. The goal of this literature review has been to examine the interaction of the Army and its families and to highlight what is known about the impact of family factors on attrition, retention, and readiness.

PRINCIPAL FINDINGS

Our review confirms that a number of *individual* background factors--including education, ability level, age, deviance, and gender--affect attrition, retention, and readiness (see Table 8). At least two *family* characteristics--marital status and parent status--also affect the outcomes of interest. Overall, being married increases the likelihood of attriting; its effects on first-term retention, however, remain ambiguous. Having children is consistently associated with increased likelihood of attrition, but once the first term is successfully completed, status as a parent improves the chances of retention, although very young children seem to suppress this effect.

Aspects of the Army environment such as frequent relocations, separation, and assignment to an undesired duty station create a variety of stresses that result in impaired family functioning, decreased retention, and reduced readiness. As the number of relocations--and particularly length of separations--increases, the likelihood of leaving the Army increases as well. Giving personnel a choice of duty station

Table 8

SUMMARY OVERVIEW OF THE RELATIONSHIP BETWEEN FAMILY CHARACTERISTICS AND
ARMY ENVIRONMENT AND PROGRAMS AND ARMY OUTCOMES

Factor	Army Outcomes				
	Attrition		Reenlistment		Readiness
	PreTrain	PostTrain	First Term	Career	
<i>Individual and Family Characteristics</i>					
Schooling					
Enlisted	-	-	-	NA	NA
Officers	NA	NA	-	NA	NA
Aptitude					
Enlisted	-	-	-	NA	NA
Officers	NA	NA	NA	NA	NA
Age (over 17)					
	-	-	+	+	NA
Officers	NA	NA	NA	NA	NA
Deviance	+	+	-	-	NA
Gender (female)	+	+	-	-	NA
Married	+	+	- + (a)	No effect	NA
Children	+	+	+	+	-
<i>Army Environment</i>					
Frequency of relocation	NAP	NAP	-	-	NA
Separation	NAP	NA	-	-	NA
Choice of duty station	NA	-	+	+	NA
<i>Job characteristics</i>					
Supervisor support	-	-	+	+	NA

More

Table 8 (continued)

Factor	Army Outcomes				
	Attrition		Reenlistment		Readiness
	PreTrain	PostTrain	First Term	Career	
Peer relationships	-	-	+	+	NA
Work satisfaction	-	-	+	+	NA
<i>Quality of Life and Family Programs</i>					
Medical care	NA	NA	+	+	NA
Housing satisfaction	NA	NA	+	+	NA
MWR	none	none	U	NA	NA
Commissaries	NA	NA	NA	NA	NA
DODDS	NA	NA	NA	NA	NA
Other services	NA	NA	NA	NA	NA
<i>Civilian Environment</i>					
Better civilian opportunities	+	+	-	-	NA
Service use	NA	NA	NA	NA	NA

NOTE: NAP means not applicable.

NA means not available.

U means uncertain: different studies show neutral, positive, and negative effects.

(a)The effect of marriage on reenlistment after the first term is ambiguous.

has been found to increase the likelihood of reenlistment and may be as effective as a large cash bonus in achieving this effect. The impact of these Army policies on readiness is not known.

Job factors such as work satisfaction, supervisor support, and peer relationships are important in predicting attrition and retention. Although military data are lacking, civilian data confirm the importance of job satisfaction in absenteeism, a component of readiness. Job factors and compensation account for much of the variance in retention, but they do not eliminate the effects of family factors on military outcomes. Family attitudes about reenlistment, relocation, family separation, and the demands of the military job appear to become relatively more important with increased years of service. The importance of family factors compared with compensation and job factors appears to vary as a function of officer/enlisted status and by service branch.

The increasing importance of family and nonwork factors with years of service may reflect increased pay, the increased needs associated with family development, or the multiplier effect that families appear to have when problems develop. Little is known, however, about why this happens or what family processes contribute to this effect. Such information might be helpful in targeting services.

Proponents of the partnership and utilitarian approaches have both recognized the potential importance of family services. The Army provides a large array of services to its members and their families, including general services such as commissary and recreational programs and targeted services such as financial management and drug and alcohol programs. The perceived value of these services is uneven. While medical benefits are rated highly, military housing is valued almost exclusively for its low cost. Child care receives fairly low evaluations, and appears to be least liked by those who depend on it most--single parents.¹ Targeted services are delivered in a context that may discourage their use: with the exception of clergy and attorney consultations, confidentiality is not assured. Numerous studies of military families indicate a keen sense of the career risks imposed by use of these services.

¹This assessment is based on a 1984 survey. Since then, the Army has acted to improve child care services and facilities, and current satisfaction with child care may differ.

The effects of these services on attrition, retention, or readiness are not well known. Although some utilization data are available on housing, education, and day care services, they have not been intensively analyzed. Failure to collect utilization data except for these few services has made it impossible to know what effects, if any, most services are having, what types of people use the services, and whether selectivity biases, if any, favor Army outcomes. We do not know the importance or use of civilian services.

How family members perceive Army policies and services is a key intervening factor in understanding the relationship between Army policies and targeted military outcomes. For example, the literature suggests that while the absolute number of moves or length of separations is important in affecting targeted outcomes, how these policies are perceived by military personnel and their families may play a role as well. It may be income *adequacy* rather than total income that affects reenlistment behavior; that perceptions of the *necessity* of a separation influence attitudes toward the separation that ensues. While moves and separations may present difficulties for many families, these difficulties may be reduced, at least to some extent, by efforts to alter some of the perceptions surrounding them. Few such efforts exist now; more commonly, services are provided when families fail to function in response to such events.

The level of perceived conflict between Army demands and family needs is one factor that has been fairly extensively examined. Studies on how family members regard the duty environment imposed by the military job find that when job demands are perceived to be too great and to overly conflict with family needs, family members have negative feelings about the military. Such negative attitudes on the part of both the military member and the spouse have been found to reduce the likelihood of retention. Once again, we need to know the effects of these factors on readiness.

Findings that working wives, particularly professionally employed wives, are less supportive of their husbands' military careers reemphasize the important role of family dynamics in military outcomes. For the working wife, the demands of her husband's military job are

likely to conflict with her own need to find and keep a good job. Moreover, working wives are less likely than nonworking wives to participate in the wives' activities designed to increase morale and commitment to the service.

Reported satisfaction with military life in general or with more specific components of it has received considerable research attention. Individual-level studies produce fairly consistent results concerning its components for married male members: (1) a job component, which includes supervisor behavior, perceived job autonomy, and relationships with peers (plus for officers, a patriotism component); and (2) a family component, which represents the family's level of satisfaction with the military way of life. As a group, satisfaction studies find that aspects of these two components of satisfaction account for significant amounts of the variance in decisions to remain in the service. The effects of satisfaction on readiness remain unclear.

Only a few studies have examined the effects of civilian career alternatives on military outcomes. These studies suggest that, in general, those who find nonmilitary career alternatives more attractive and available are more likely to intend to leave the service, as the theory suggests. However, these intentions appear to be quite responsive to civilian sector trends, such as unemployment, both at the aggregate level and as perceived by individual decisionmakers.

POLICY IMPLICATIONS

It is difficult to derive policy conclusions from this review of the literature on Army families and services. First, the processes by which the military environment, families, and the Army as an institution interact are complex and not well understood. Factors such as the use of services or the attractiveness of civilian life styles--factors likely to affect family behavior--have not been examined in the literature. Nor has the impact of family factors on readiness been seriously pursued. Second, the importance of family factors and support services relative to other Army and individual factors such as pay and job characteristics is difficult to ascertain. Third, there have been no studies of the impact of services on family functioning or on Army outcomes.

For these reasons, formulation of the policy and research priorities presented in this subsection required aggregating scattered findings and making judgments about the implications of the data in the preceding sections. We have attempted to state clearly the considerations that entered into our judgments. Below we identify five general propositions that should be considered when formulating Army family policy.

First, *the environmental stresses exerted by the military environment and the potential demand for services differ significantly among the four Armed Services.* The Army, like the Air Force, is more married, has more dependents per military member, and has a higher proportion of dependents located abroad than the Navy and the Marines. But, like the Navy and the Marines, it requires twice as frequent and twice as lengthy separations as the Air Force. Finally, unique among the four services, Army members spend twice as much time abroad as members of the other services. We expect that the combined effect of these factors creates more stress and pressures on Army families than on families in the other branches, and may translate in greater needs for services.

Second, *the Army needs to articulate more clearly, and in measurable ways, the objectives of each Army family service.* Currently, the goals of Army family policy are set in general terms and, as discussed in Sec. I, in potentially conflicting ways. Attention should be given to translating the general concepts of "partnership," "reciprocity," "Army community," and "readiness" in ways that are uniformly understood by all, including family members, and in ways that are eventually measurable. The fact that so few evaluations of the effectiveness of Army services have been done can in part be attributed to the lack of consensus and clarity as to what they are to accomplish.

Third, *policies and programs that communicate concern about families, that provide information and justification for Army policies, and that seek to empower family members, may--at least for some people--be as useful in affecting family satisfaction and Army outcomes as the more costly and frequently stigmatizing services that may be provided when families are unsuccessful in coping with change and the exigencies*

of military life. We urge careful thought concerning the possibilities for developing and expanding peer support systems, for communicating the Army's concern for family members, particularly spouses, and for explaining the reasons for moves, separations, locations, and unexpectedly long hours. The more promising approaches might be implemented and tested using quasi-experimental designs.

Fourth, policy development and force management are likely to be enhanced by explicit recognition that different factors and different services matter for different subgroups and different Army outcomes.

Table 8 shows quite clearly that individual and family factors impact differently on different Army outcomes, and that the effects of these factors vary as well over one's work life and family life cycle. Further, we believe that the effects of programs and services on Army outcomes are likely to vary as well as a function of individual and family characteristics and targeted Army outcome, although few data currently exist to support this view. Policy and programs are likely to benefit if such differential impacts are considered in planning and operations. We urge the collection of data bearing on this point, as well as more use of available data in program planning.

Finally, the findings summarized in this Note suggest that attention in one major area might have high payoff. The most significant change in Army family structure over the past ten years has been a doubling in the proportion of spouses participating in the labor force. As a result, *long duty hours and Army relocations, separations, and duty station assignments policies are creating more conflicts in families as the professional aspirations of working spouses are frustrated by these features of military life.* The importance of spouse attitudes in reenlistment decisionmaking makes spouse career issues vitally important and the policies that influence these attitudes worthy of serious review. The Army has responded to this trend by expanding its employment placement services and by upgrading (although not expanding) its day care facilities, but it has not undertaken a comprehensive reassessment of its relocation, separation, and duty station assignment policies and procedures. Yet the literature suggests that these "givens" of Army life increasingly affect family and soldier behavior. Innovative ways should be sought to minimize the Army's

interference with spouses' professional aspirations and at the same time maintain the Army's standards of readiness.

DIRECTIONS FOR FUTURE RESEARCH

To contribute to Army policy formulation, analysis of new data using more advanced statistical techniques is essential.

The current lack of data on attrition and, particularly, on readiness, constitutes a significant limitation on the value of the family literature in making policy decisions. We urge that attrition and, particularly, readiness receive far more emphasis in future research. Attention should be paid to understanding the relationship among family characteristics, in particular child age and spouse employment and the use of child care services on various readiness measures. Another fertile area involves study of the effects of critical events, such as marriage, on Army outcomes. High rates of both attrition and marriage characterize the first term. In what ways are they related? What role, if any, is there for intensive services at this time as a means of improving family functioning, decreasing service needs, and reducing attrition rates? Such focused studies will provide decisionmakers with the data they need to formulate service policies. It will be highly worthwhile, as well, to begin to explore the selective effects of family factors on attrition, retention, and readiness as a tool for making service delivery decisions.

In studying the relationship of family factors, services, and Army outcomes, it would be most useful to systematically examine the role of unit leaders in recognizing family problems, creating an environment conducive to service use, and referring personnel to these services. Several studies suggest that unit leaders are very important in promoting or inhibiting service use, and vary considerably in their impact on Army outcomes. Attrition studies have examined the unit leader more than others, and find that attrition rates vary substantially across units, and interact with personal characteristics in affecting attrition. It is reasonable to assume that these effects are likely to hold for retention and readiness as well, and to interact with family as well as individual characteristics.

The lack of data on service utilization severely limits the contribution that the research literature can make to policy decisions in this area. Without such data, we cannot learn which programs are most effective in improving Army outcomes. Nor can we know whether those programs are serving the families the Army would most like to retain. Utilization data would help the Army to answer several key questions that cannot now be addressed:

- Are the most essential services (defined by demand, need, or effects on military outcomes) receiving the greatest share of resources?
- Are services being used by members and families the Army would most like to retain?
- Is the Army at risk of losing productive personnel because of a failure to provide essential services of high quality?

Good data on service use would help to clarify how services can further Army objectives and might also inform the Army's approach to their provision.

The Army is heavily involved in the provision of services to members and their families. Studies of utilization combined with the development and testing of nonservice approaches to meeting family needs would allow the Army to make decisions about service provision in a far more informed manner than is now possible.

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