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<b>13. ABSTRACT (Maximum 200 words)</b> Background: This study used a sample of 1523 active duty and reserve Army women; it provides data on the level of stressors, buffers, and positive and negative outcomes among these women by rank-branch groups. It also provides the results of logistic and linear regression models that examine the association between stressors, buffers, and outcomes. Methods: Focus groups were used to inform the development of a survey questionnaire, which was administered anonymously at 13 active duty and 16 reserve locations.  Results: Overall, there were many indicators that suggested that women were functioning well. Few women reported many sick days, drug use, or serious alcohol problems. Performance was good overall. Three-quarters of women rated their morale as moderate or better. Sexual harassment and discrimination, however, were still major factors in many of these women's lives. The enlisted women have substantial financial pressures, and women overall tended to have undesirably high levels of sleep problems and psychological problems.  Conclusions: Programs and procedures were recommended to reduce stressors and improve outcomes.				
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## **1.0 BACKGROUND**

### **1.1 Introduction**

The findings described in this report are from a large-scale study of Army women on active duty and in the reserve in 1999. The study was challenging. We went to 13 active duty and 16 reserve locations to oversee group self-administrations of our survey questionnaire, collecting data on more than 1500 women.

As put forth in the proposal, the goal of the study was a "public health/epidemiological" one. We wanted to first increase our knowledge about the levels of stressors, buffers, and positive and negative outcomes among women soldiers. A comprehensive portrait of where the Army is strong and where it could be strengthened is important for decision-making related to program implementation. Second, we proposed to examine the effects of stressors and buffers on outcomes, as well as to examine how the effects of stressors and buffers are mediated by socio-demographic and military characteristics (for example, age, race, and rank). Such information tells us which stressors are the most problematic, how buffers may decrease their effect, and what groups may be differentially affected by specific stressors and buffers.

As described in the proposal, the analyses conducted as part of this study may be seen as an "informed exploration" of issues related to stressors, buffers and outcomes. The exploration reflected in the current report provides descriptive data on the distributions of stressors, buffers, and outcome variables, as well as findings of multivariate analyses that examined the relationship of stressors and buffers to outcomes. In order to determine where specific types of interventions might be most needed, we examined stressors, buffers, and outcomes by rank and by branch. (For this study, branch is limited to Army active duty vs. reserve.) An examination of (1) how rank and branch are related to the distribution of stressors, buffers, and outcomes and (2) how demographic and military characteristics and buffers mediate the effects of stressors on outcomes allow interventions to be developed that target the groups of highest need.

This report starts with a literature review, followed by a description of the study procedures. Subsequent sections of the report provide distributions on the various levels of stressors, buffers, and outcomes by rank and branch. The findings from the multivariate analyses, which examine the effects of stressors and buffers on outcomes, comes next. These analyses are conducted separately by branch, in order to examine how the relationships differ by

branch. Finally, we close with a summary of the findings from the study, and our conclusions and recommendations based on the findings.

The budget for this study was reduced substantially at the time of award. In a letter written in response to these cuts, we stated that we did not think that we would be able to convene a panel to review and comment on findings from the study, as described in our original proposal, because of the budget cuts. Indeed, we could not afford to do so. Nonetheless, we believe that you will find the information in this report exciting and thought-provoking.

## **1.2 Literature Review**

In September 1998, women on active duty in the U.S. military numbered approximately 200,000, or 14% of the active force. (Military Personnel Statistics from the DoD Directorate for Information Operations and Reports, Web Site [//web1.whs.osd.mil/mmid/military/miltop.htm](http://web1.whs.osd.mil/mmid/military/miltop.htm)) On June 1, 2001, the largest group of military women, that is, active duty Army women, numbered approximately 73,436 women (15.3% of all active duty Army personnel) and there were 46,820 women Army reservists (24.9% of Army reservists) ([www.odcsper.army.mil/default.asp?pageid=25f](http://www.odcsper.army.mil/default.asp?pageid=25f)).

Over the past decade, women in the military have become not only more numerous but also more heterogenous, and they have been assigned to a broader range of occupations. They are now subject to many of the same kinds of environmental, occupational, and combat-zone stressors faced by men. Because of this evolution, women may be subject to more and greater stress than men because they may suffer sexual discrimination and harassment in a predominately male environment, operate equipment and follow procedures not originally designed for women, and be more likely to have primary responsibility for children in addition to their military duties. Although there remains a combat-exclusion policy that prohibits women from serving in direct combat units in the armor forces, infantry, and cannon-artillery forces, in the past decade the Army has opened many additional positions to women, so now 91% of occupations in the Army are open to women. ([www.odcsper.army.mil/default.asp?pageid=25f](http://www.odcsper.army.mil/default.asp?pageid=25f)).

As the military has decreased in size, it has come to rely more on the non-active component to respond to military crises. Recent history has shown that, during these times of crisis, the military reserve and National Guard units have been deployed to act as support for the active duty units. Because of this, the men and women in the non-active duty units are being exposed to similar types of stressors as those on active duty. Military women, both active duty and reserve, are now in positions that expose them to these crises in a more involved fashion: they are in support Military Occupation Specialities (MOS's) and they are stationed closer to front lines.

Despite the rise in the numbers of women in active duty and non-active duty positions, and the expansion of their roles and responsibilities, information on the broad spectrum of the types of stressors that they experience is limited, and even less information is available on how these stressors impact on women's job performance and psychological health and well-being. The need for research in this area has been recognized by both the Institute of Medicine and the writers of the Broad Agency Announcement (BAA) for Defense Women Health Research Program (DWHRP). Identifying the major stressors that significantly affect women will enable military decision-makers to take actions to reduce the negative effects of stress and to promote environments that will allow women to function at their maximum capacity.

The specific aims of this project were to: (1) identify the stressors experienced by both active duty and non-active duty women; (2) to assess the relationship between these stressors and outcomes, such as job performance, mental health, substance abuse/dependence, and physical health; and (3) identify the factors that may serve as buffers in the stress-outcome relationships.

A number of conceptual definitions of stress have been put forth in the literature (Lazarus et al., 1985; Baum et al., 1990; Dohrenwend et al., 1981; Hobfoll, 1989; Seyle, 1956), and the stress research field suffers from the lack of a shared operational definition (Davidson et al., 1993; Fletcher, 1991; Cheren, 1989; Bloom, 1985). Historically, stress research has focused on exposure to events or conditions (primarily noxious) and the outcomes that result from such exposure. Consequently, there has sometimes been confusion regarding the exact referent of the term "stress." Is it the stressor or the response to the stressor? In this project, we have adopted the approach used by Lazarus and Folkman (Lazarus et al., 1984). We refer to the noxious stimuli or environmental demands that are presented to individuals as the "stressors" or "stressful

events". We reserve the term "stress" to refer to "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus et al., 1984). We refer to the short-term and long-term sequelae of exposure to stressors as "outcomes" or "stress-related outcomes".

In the text that follows, we highlight the research on the types and frequencies of stressors. Within this section, the literature is organized according to broad categories of stressors, namely job-related, trauma, sexual harassment, negative life events, family, and daily hassles. In the next section, the literature on outcomes related to stress is highlighted. This is discussed by type of outcome, namely job performance, mental health, substance abuse/dependence, and physical health. The last section highlights what little is known about the demographic, personality, and social support buffers that mediate the stress-outcome relationships discussed.

### **1.2.1 Stressors**

Some of the types of stressors that have been examined most often are overload, role conflict, and lack of control over work. A model proposed by many researchers is that stress results from having higher levels of demands placed on one than one has available resources to meet those demands (34). The greater the discrepancy, the greater the stress. It has been found that stressors with the same characteristics do not necessarily have the same effects (for example, overload can have differential effects depending on whether the domain is work or home).

#### **1.2.1.1 Women and Stressors**

There have been conflicting findings as to whether work or family responsibilities are the greater source of stress for women, and whether working outside the home increases or decreases stress. Many studies have found that, for women, having both a job and children is likely to increase stress because of conflicts between the two responsibilities (Barnett and Barach, 1985; Fatkin, 1987; Greenglass, 1988; Beena and Poudavi, 1992). Some studies, however, have found that having a job outside the home decreases a woman's overall level of stress (Stellman, 1997; Kandel et al., 1985), and that working outside the home can actually buffer stressors at home (Maslach and Jackson, 1985). These conflicting findings appear to be explained by a variety of mediating variables, including: the amount of support one has in the home (for example, married working women tend to have less stress from having children than single working women) (Kandel et al., 1995); the type of occupation (Kushnir and Kazan, 1992);

the number and age of children (Kushnir and Kazan, 1992; Bowen et al., 1993; Lawrence, 1986); support from supervisor (Houston et al., 1992; Lawrence, 1986); control over one's work (Karasek et al., 1991); and satisfaction from one's work (Barnett, 1985). Some research suggests that men have fewer conflicts and less stress than women related to the work/job interface because women tend to have a stronger identification with the parent role than men (Simon, 1992). Controlling on one's identification with the parent role appears to at least partially decrease gender differences in the experiences of stress.

In the report "Working Women's Health Concerns: A Gender at Risk," by the Bureau of National Affairs, many leaders of national women's organizations stated their belief that stress was the most serious hazard faced by women. Findings from a wide variety of studies suggest that women perceive a greater number and more severe stressors in their lives than men (Rappert and Weinstein, 1985; Fatkin, 1987; Karasek et al., 1991; Beena and Poduvai, 1992). Furthermore (as discussed later), women also tend to have more negative outcomes from stress than men. Some of this gender difference appears to be the result of more stressful work/home conflicts among women, but even women without children tend to report higher levels of stress than their male colleagues. Some of the other hypothesized reasons for gender differences include: value differences (for example, women tend place higher value on non-work life than men while men's identity is more strongly tied to their work role); lack of "fit" between the woman and a male work environment, which may emphasize masculine-oriented behaviors and characteristics such as competitiveness; being devalued and having less support from male colleagues and supervisors because of their gender; and a greater willingness to admit feeling stress and endorse items asking about health and mental health problems.

#### **1.2.1.2. Classification of Stressors**

Researchers have grouped stressors in several, overlapping ways -- by frequency or ordinariness, severity or intensity, source, and/or by general characteristics. The frequency/ordinariness grouping includes "daily hassles" on one end of the spectrum, to "stressful life events" on the other. Stressors grouped by their severity/intensity can range from mild to traumatic. Classifying stressors by their source refers to the life domain in which the stressor operates or from which the stressor stems (for example, work, home). Categorizing stressors according to their general characteristics refers to such concepts as lack of control and role-conflict, among others. Most stressors, depending on how their measured, could be

classified under several or all of these nosological systems, making comparisons across studies difficult. For example, the same stressor could be classified as a job stressor, a role conflict, and a daily hassle. With this in mind, we highlight the literature base that has attempted to identify the types and frequencies of the following stressors: job-related, trauma, sexual harassment or discrimination, stressful life events, family-related, daily hassles, and racial discrimination.

### **1.2.1.3 Job-Related Stressors**

Job related stressors have been widely associated with employee absenteeism, escalating health care utilization and costs, job satisfaction and lowered productivity and overall performance, among others (Gutierrez et al., May et al., 1995; Karasek et al., 1987; Behr et al., 2000; Crabbs et al., 1986). One study found, among Swedish white collar workers, that work load and conflict are positively and consistently associated with illness (Karasek et al., 1987); other studies found that job satisfaction decreases significantly as workload increases; and among women, job control is consistently associated with health problems (Burke, 1994; Karasek et al., 1987; Steen et al 1998). Additional studies have documented the negative effects of job stress in the form of high demand and low control (Steen et al., 1998; Stewart et al., 1996; Brimer, 2000; Karasek 1979; Bourbonnais et al., 1996).

Job-related stressors have been studied in terms of whether they are objectively or subjectively defined. Objectively defined job stressors include physical properties of the working environment (for example, physical hazards, noise), time variables (for example, such as length of work day, shift work), social and organizational properties of work and its setting (for example, work load and autonomy), and changes in job (for example, demotion and transfer). Subjectively defined job stressors include role-related stress, degree of control over work processes, responsibility for people, amount of decision-making power on the job, relationship to coworkers, support from superiors, and underutilization of abilities (Bjornson, 1990; George, 1988).

For those in the military, environmental and occupational stressors may be inextricably entwined. Harsh living conditions, exhausting physical demands, and other highly stressful situations experienced when deployed in certain locations are obviously both environmental and occupational.

Although many of objective job stressors have been studied extensively in military men, little is known about the impact of the following in military women: frequent separations,

regular geographic relocation, threat of death or injury during training and deployment, and threat of capture during deployment (Norwood et al., 1997).

### *Deployment*

The potentially most severe objectively-defined job-related stressors are related to deployment and experiencing wartime. As with men, women who have been deployed experience high levels of stress. Much of what we know is based on studies of women Vietnam veterans. Schnaier (1988) studied 89 female Vietnam veterans and found that the most frequently mentioned stressors relating to deployment were nursing duties and responsibilities, witnessing the mutilation of young bodies, and supply shortages (Barnett et al., 1991). Chandler et al. (1995) reported that harsh living conditions and exhausting physical demands were key stressors among deployed women. One such stress is handling the dead. Studies have shown that the anticipation of handling the dead itself can be debilitating (Chandler et al., 1995).

Furthermore, research findings consistently demonstrate that the anticipation of deployment raises stress levels in active duty women (Kelley et al., 1994; Wynd et al., 1992). Women anticipating a deployment reported significantly higher levels of parenting stress, the stress associated with securing child care prior to deployment and related stress than those who had recently returned from deployment (Kelley et al., 1994).

### *Being a Woman in a Man's Occupation*

Aside from deployment and wartime participation, women face a number of other objectively defined stressors related to working in a traditionally male occupation (Chandler et al., 1995; Bishop, 1984). Ever since women have begun to move into predominately male occupations in significant numbers, there has much discussion, and some research, on the effect of being a woman in a man's environment. One of the best known early studies on this subjects was conducted by Kandell (1985). Research has found that women making such inroads face a variety of stressors including: being stereotyped, encountering negative attitudes of supervisors and colleagues, being forced to perform at a higher level than men in order to be considered "as good" as men, being sexually harassed and discriminated against, and using equipment and procedures developed for men (Yarney, 1990; Wexler et al., 1983). A study by Fitzgerald, Drasgow, and Magley (1999) found that sexual harassment was more often found in work groups that were primarily one sex, with only a few individuals of the opposite sex. A burgeoning area of research has focused on delineating the negative outcomes that may manifest

themselves in response to various forms of sexual discrimination and harassment in the workplace, such as differential hiring, work assignments, promotions, and exclusion from social and peer networks in which work occurs (Shrier, 1990; Charney, 1994).

The physical requirements and equipment found in a the male-dominated workplace also often are not a good fit for women. They may not be modified or sufficiently modified for women (for example, poorly fitting clothing and equipment and limited facilities for privacy for personal hygiene). These can result in minor, but nonetheless, stressful injuries. Because women's physiology is different from men's, physical requirements and standards for men do not accommodate women. (For example, women have better cold tolerance than men but less heat tolerance; women and men have different levels of upper body strength.) (Lyons, 1991). DeVilbiss (1985) provides an insightful look at the situation for women on combat maneuvers in her participant observation study. In this study minor injuries include many of the day-to-day problems of living in a man's environment (for example, the blisters all women developed on their feet because the boots did not fit them).

Subjectively defined job stressors appear to be the strongest predictors of stress-related outcomes (Lowe et al., 1988). Perceptions of job demand and low levels of control can result in anxiety, depression, reduced work performance, and absenteeism (Steen et al., 1998). Mastekaasa et al. (1998) found that women have higher levels of absenteeism than men, attributable to differences in working conditions and job characteristics-- not child care or parenting problems as many have suspected over the years. However, one of the most important work-related stressors for women is work/family role conflict and role strain (Barnett et al., 1991; Beena et al., 1992; Beer et al., 2000; Houston et al., 1992).

### *Gender Discrimination*

Subjectively defined job-related stressors among military women stem from, for example, perceptions of being stereotyped and feeling that they are resented by male supervisors and colleagues. For example, DeVilbiss (1985) describes how women reported that men who had difficulty carrying out a task or became angry or emotional were excused by other men for various reasons, whereas women in the same situations were seen to demonstrate their unfitness for military duty. In another study by Eshkol et al. (1987) among military women, it was observed that women who worked among other women felt more appreciated than women working among men. DeFleur (1985) reported that there is the perception that women are given

positions out of need to fill a quota, that women are given preferential treatment, and that women consequently feel less accepted than men. Among cadets interviewed, there was the perception that relations between sexes were strained, unpleasant, and tense (DeFleur 1985). A study conducted in 1994, which asked Army personnel their opinions about women's roles in the Army, found that there were substantial differences in attitudes between men and women (Stiehm, 1998). The data suggested male soldiers' acceptance of women in the many roles they may now attain in the Army by male soldiers remains limited.

The above findings on military women are strengthened by similar findings from research on job-related stressors among non-military women, particularly women working in traditionally male professions such as medicine. Robinson et al. (1986) explain stress differences among men and women in medical school as stemming from stereotypical "masculine" descriptions of physicians as assertive, dominant, ambitious, and independent. This description contradicts the traditional upbringing of many female medical students, which stresses passivity, emotionality, compassion, and dependence (Robinson et al., 1986). A 1994 study of U.S. Public Health Service commissioned officers found that women were not given the same training and mentoring opportunities as men (Nice, 1994). In studies of stress among female physicians, isolation due to lack of number of women faculty as supervisors was commonly reported (Robinson et al., 1986).

Also similar to military women, subjectively defined stressors among non-military women appear to be the strongest predictors of stress-related outcomes. Subjectively defined job stressors include the perception of being stereotyped and encountering negative attitudes of supervisors and colleagues (Yarney, 1990; Wexler et al., 1983). For instance, studies have found that anxiety based on cognitive concern about social evaluation and novel situation were more highly correlated with depression than anxiety about physical danger (Davies et al., 1995; Kushnir et al., 1992). Working women also report stress related to feeling that they are forced to perform at a higher level than men in order to be considered "as good" as men (Yarney, 1990; Wexler et al., 1983; Barnett et al., 1985; Etzioni, 1986). Relatedly, in a study of 92 women doctors, common stressors included conflicts between career and personal life, a lack of female role models, and prejudice from patients (Firth-Cozens, 1990).

#### **1.2.1.4 Traumatic Stressors**

A traumatic stressor (also referred to as an "extreme event") is defined by the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM III, 1987) as one that is "outside the range of usual human experience and would be markedly distressing to almost anyone". Exposure to trauma can be an important stressor for military women, particularly the trauma of dealing with dead and dying soldiers and civilians. Some studies suggest that women may feel more stressed and have more negative psychological reactions to trauma (Perconte et al., 1993) than military men, especially when they have had a history of abuse (Engel et al., 1993). The National Vietnam Veterans Readjustment Study (Kulka et al., 1990) findings indicate that 8.5% of all women Vietnam veterans were still current cases of post-traumatic stress disorder (PTSD) 15 or more years after their military service, confirming the belief by some that service in a war zone can be traumatic even for those not directly involved in combat (Wolfe et al., 1992). Other more preliminary studies that have been conducted using convenience samples also support the notion that exposure to wartime stressors, particularly to death and dying, result in both physical and psychological aftereffects for women, even though women do not serve in combat roles (Wolfe et al., 1992; Baker et al., 1989; Norman, 1988; Schnaier, 1986; Brende et al., 1985; Paul et al., 1986; Ott, 1985). Recent research on those who served in the Persian Gulf War, for example, includes studies of stressors associated with symptoms of PTSD among individuals who handled human remains (McCarroll et al., 1993; Sutker et al., 1994).

Severe experiences such as sexual assault and other violent victimizations and aggression are also traumatic events that can lead to PTSD, other psychological disturbance, lack of sleep and appetite, and major depression, among other negative physical and emotional effects (Wolfe, et al., 1998; Rosen et al., 1998)

#### **1.2.1.5 Sexual harassment and discrimination**

It has been recognized that women experience numerous unique stressors associated with their gender and sex roles (Belle, 1982; Charney et al., 1994). The vast majority of the victims of sexual harassment and discrimination, whether military or non-military, are women (Shrier, 1990; Magley et al., 1999; Donovan et al., 1999). Unfortunately most episodes of sexual harassment go unreported or are dismissed by women as not a problem (Horsley, 1990; Rosen et al., 1998).

From what is known about sexual harassment in the military, it appears that a large number of women experience one or more of these acts, that the figures are likely underestimates of the true frequency, and that the high proportion observed in recent studies has not changed over the years. Furthermore, Wolfe et al. (1998) found that, among Army women, rates of sexual harassment and sexual assault were elevated in comparison to community samples. History of sexual harassment among women while in the military has been found to be extremely common (Murdoch et al., 1995; Rosen et al., 1997). The 1995 Sexual Harassment Survey observed that 78% of women military personnel reported experiencing one or more sexual harassment experiences in the past year. However, only 52% of military women who reported experiencing one or more of these acts categorized it as sexual harassment. Furthermore, junior enlisted women (E1-E4) were more likely to report having experienced such acts (83%) than were senior enlisted (E5-E9) women (74%) or officers (75%). Rates for Black and White women were similar. For women who reported these incidents, the most frequently reported alleged perpetrators were military co-workers (44%), other higher-ranking military personnel (43%), and other military persons (24%). For women, the event that had the greatest effect on them occurred most often during duty hours (88%) and at work (74%). Approximately 40% of women who experienced these incidents reported them, most often to their immediate supervisor (26%), someone else in the chain of command (21%), or the supervisor of the person bothering them (18%).

In an earlier study of women in the Navy, 44% of enlisted women and 33% of officers reported being sexually harassed (Culbertson et al., 1994). Most of these women dealt with the incident(s) by taking actions to avoid the person or by telling the person to stop; few reported the incident. In the 1988 Sexual Harassment Survey, 64% of female, active-duty military personnel reported one or more incidents of unwanted sexual attention while at work during the previous year. Similar rates of harassment are cited in a report by the Secretary of the Army's Senior Review Panel on Sexual Harassment (1997).

The negative effects of sexual harassment can result in job attrition, depression, anxiety and nervousness, academic decline, disturbed interpersonal relationships, increased health complaints, risk of PTSD, and problems with work performance (Rosen et al., 1998; Hankin et al., 1999; Shrier 1990; Dubois et al., 1998; Faley et al., 1999; Murdoch et al., 1995; Prior 1995; Magley et al., 1999). Of particular concern to the public and to the military is the findings from

studies that, even with an increase in knowledge and awareness about what behaviors constitute sexual harassment, the federal government has not witnessed a decrease in the prevalence of sexual harassment (Rosen et al., 1997). Another factor that should concern us all is the cost of sexual harassment. In 1988, the cost of sexual harassment and its sequelae in the Army was more than \$250,000,000 (Faley et al., 1999).

#### **1.2.1.6. Stressful Life Events**

A significant body of research has been devoted to defining and examining the impact of major life events on functioning (24). *Stressful life events* happen to many people at some time in their lives. Early studies that focused on stressful life events were strongly influenced by the seminal work of Holmes and Rahe (11) who created a ratio-scaled schedule of 43 broad-spectrum recent life events that were believed to require some psychological adjustment on the part of the person. This study employs the Stressful Life Events scale developed by Tennant and Andrews (1976). The approach used by Tennant and Andrew is to calculate the cumulative scaled life events score for each individual. To ensure validity, the scaling of each item were developed to be related proportionately to the other items in the scale.

Research suggests that "positive" life events, such as marriage or promotion, may also require adjustment and so may induce stress. There have been conflicting findings as to whether men or women report more stressful life events. Stressful live events can be defined as life changes of some major significance to the individual (Russell et al., 1993). These can include, but are not limited to, death of a spouse or other loved one, marriage, financial problems, and divorce. Investigators have found that an increase in life events precede both physical and psycho-social illnesses (Tennant and Andrews, 1976)

#### **1.2.1.7 Family-Related Stressors**

There have been conflicting findings as to whether work or family responsibilities are the greater source of stress for women. A study conducted by Kandel et al., (1985) observed that strains and stresses are lower in family roles than in occupational or housework roles but, when they do occur, they have more severe consequences for the psychological well-being than occupational strains and stresses. In contrast, Barnett et al. (1985) conducted a survey among a sample of 238 Caucasian women between the ages of 35-55 and observed that occupancy of the role of mother was related to 2 stress indices and occupancy of the role of paid worker was related to none.

There are more consistent findings across studies documenting that women experience more family-related stress than men. Although both men and women may experience stressors related to being a spouse, women report more parenting-related stress than men. Women remain the primary care givers for most children and often have primary responsibility for household tasks, even when they work outside the home (Barnett et al., 1985; Houston et al., 1992; Pitman et al., 1988; Barnett et al., 1991). In one study comparing parental roles, mothers exhibited significantly higher levels of distress than fathers (American Psychiatric Association, 1987). Divorced mothers and fathers exhibited more distress than their married counterparts (Charney and Russell, 1994). Similarly, one study observed that women reported more frequently that work would play an important but negative role in their decisions about childbearing, while men reported more frequently that being a parent had a very positive effect on their work (Barnett et al., 1985; Etzioni et al., 1986).

#### ***Gender Role Conflicts***

Women are differentially affected by gender role stressors and conflict than men. Women experience stressors in the lives of significant others, the absence of high quality support in a marriage, and weight control more than men (Gillespie et al., 1992). Most married military women have working husbands—most often military as well. Serious conflicts can develop when their military duties conflict.

#### ***Parenting Role Conflicts***

There also appears to be general agreement across studies indicating that a significant source of stress for women stems from trying to balance work and parenting responsibilities. Moreover, combining the work role with the parental role resulted in greater reported stress among women than men (Charney and Russell, 1994). Many studies have found that having a job and children is likely to increase stress because of conflicts between the two responsibilities (Beer et al., 1993; Catkin, 1987; Pitman et al., 1988; Greenglass 1988; Beena et al., 1992; Paul 1985; Kushnir et al., 1992). The Foraker and Michael (1994) study of couples and psychological well-being and their adreno-medullary responses found that females maintained a high level of physiological activation throughout the 7-day week, in contrast to males whose level of physiological arousal dropped significantly during the weekend. There were no significant differences in relation to mood. These results might suggest that “dual-role” woman may be particularly at risk for systematic disorders insofar as a sustained high level of

physiological arousal can lead to above average or faster wear and tear of the organism (Scurfield et al., 1992). This type of role conflict could represent a particularly difficult task for women in the military since they may be assigned or deployed to locations to which they will not be able to take their children, duty assignments may be given on short notice, or they may work long hours and on rotating shifts (Barnett; et al., 1985; Houston et al., 1992; Pittman et al., 1988; Barnett et al., 1991). Some factors of the female gender role stressor are associated with maladaptive and depressogenic coping strategies (Gillespie et al., 1992).

#### ***Single Mothers/Head of Household***

Literature on single mother in the military is sparse, especially on the effects of their particular stressors on psychosocial and physical outcomes. Single mothers represent a new and emerging family structure not only in America, but also in the military services (Bowen, 1987; Schumm et al., 1994). The four major problems reported by single military women in one study are lack of adult support in parenting, child rearing and discipline, lack of time to meet all responsibilities, and difficulty in integrating work and family demands (Bowen, 1987).

##### ***1.2.1.8. Daily hassles***

Kanner (12) has defined daily hassles as "irritating, frustrating, distressing demands that to some degree characterize everyday transaction with the environment". Recent research suggests that daily hassles may have more negative outcomes than stressful life events such as divorce or job change. Research has found that women tend to report more daily hassles than men (17) and to feel greater stress from them. A study done by Killeen et al. in 1987 found that, out of 92 women, predominant types of hassles reported was related to the self, including physical and emotional symptoms, unfulfilled expectations, and doubts.

##### ***1.2.1.9 Racial Discrimination***

Racial discrimination has been found to be prevalent in almost all work environments. The rapid increase in the number of enlisted women in the military over the past two decades has resulted in a concentration of Black women in the Army. The percentage of enlisted Black women in the Army increased from 14.4% in 1971 to 33.7% in 1989. According to data provided to this study by the Defense Management Data Center (DMDC), in 1999, 43% of active duty Army women and 40% of reserve Army women in CONUS were Black. Despite these increases, white males continue to hold most of the top positions in the military (St. Pierre, 1990). Studies have shown that ethnic minorities are more vulnerable to psychological risk

(Sutker et al., 1995). Perceived racial discrimination and being exposed to only a small proportion of one's own ethnic group at work might increase stress levels for minorities (Mays et al., 1995; Gutierrez et al.). Among Black women, perceptions of discrimination have been found to correlate with actual discrimination in job availability (Mays et al., 1995). These perceptions have included restriction in career advancement, underutilization and bad treatment in the forms of less privileges and harsher discipline (Mays et al., 1995).

## **1.2.2 Outcomes**

In this section we review literature on the associations between stressors identified in the previous section and selected job performance, and psychological health and well-being outcomes.

### **1.2.2.1 Job Performance Outcomes**

In this section, key findings in the literature on the relationship between generalized stress and burnout is summarized, followed by the associations between selected types of stressors (for example, job-related, trauma, sexual harassment, and family-related) and specific job performance indicators (for example, job satisfaction, occupational instability).

One extreme form of a job performance-related outcome due to stress is burnout (Etzioni, 1984, Mayhew et al., 1990; McCabe et al., 1996). Burnout is defined as "a state of physical emotional or mental (that is, cognitive) exhaustion" (Mayhew et al., 1990; McCabe et al., 1996). Burnout is marked by physical depletion and chronic fatigue, by feelings of hopelessness and helplessness, and by the development of a negative self-concept and negative attitudes toward work, life and other people" (McCabe et al., 1996) It has been most often studied among health care workers and social service workers. Much research has been done, for example, on burnout among nurses and physicians (Baker et al., 1996, Firth-Cozens, 1990; Young, 1987). Burnout appears to be the result of an inability to cope with stress and has been found to lead to negative consequences not only for the individual but also for his or her employer, coworkers, and family. Many studies have found that women report more burnout than men (Etzioni, 1986; CDC, 1988, McCabe et al., 1996, Ezoe et al., 1994; Leiter et al., 1994). In contrast, in other studies, small or inconsistent differences in burnout rates between men and women have been observed (Pretty et al., 1990).

Even though burnout rates were found to be higher in women, these higher rates do not appear to be necessarily related to poor performance (Bartol et al., 1992). However, various studies have found that burnout contributes to lower levels of productivity, absenteeism, more interpersonal friction and possible subsequent health problems. (Etzioni, 1986; Hammer et al., 1986; Beer et al., 1992; Greenglass et al., 1990). Burnout has also been blamed for high job turnover among nurses (Baker et al., 1996) and teachers (Beer et al., 1992; Greenglass et al., 1990, Schonfeld, 1992).

### ***Retention***

Since becoming a voluntary organization, the military relies on retention and re-enlistment to maintain an adequate force. In the face of reduced accession rates among young white males, the Army has acquired a larger than ever force of women and minorities. Enlisted women had higher rates of retention when they were assigned to jobs and tasks that require traditional 'female' skills like administration, clerical, medical, and dental (Moore, 1991). However, more recent findings about retention of women in the military are mixed. Some studies have shown that female soldiers are less likely than male soldiers to expect to stay in active duty long enough to retire (Schumm et al., 1994). In another study across all service branches, females--especially Black and Hispanic females--were more likely to re-enlist than males of any race for their first and second terms of enlistment (Schumm et al., 1994). One of the factors associated with re-enlisting for women is family structure. Being "married" and having children negatively affects retention rates (Kocher et al., 1994; Lee et al., 1999). A study of Air Force women in Desert Shield and Desert Storm (Pierce, 1998) found that having a very young child, not having adequate social and other support for a young child, pregnancy, and other family-related matters were related to retention.

#### ***1.2.2.2 Psychological Health and Well-Being Outcomes***

Studies have found consistently that women have higher rates of psychological distress and psychiatric disorder than men and that this disparate distribution may be in large part due to women's greater exposure to role-related stress (Robin, 1992). Women in community samples have higher rates of major depressive disorders, anxiety disorders, seasonal affective disorders, rapid cycling, bipolar disorders, phobias and dissociative disorders than men (Norwood et al., 1997; Kessler et al., 1994). In one study of Navy and Marine women (Hourani and Yuan, 1999), the prevalence of psychiatric disorder in the past year was 23% for women and 17% for men.

In studies of military and non-military adults, stress consistently plays a significant role in the development of psychiatric disorders and is related to impaired psychological functioning. Increased stress in response to stressors has been implicated in the development of depression, generalized anxiety disorder, and substance abuse (Cheren, 1989; Aguilera, 1994; Freeman et al., 1988, Jennings, 1990). Rosen (1998) found that sexual harassment was a significant predictor of psychological symptoms in both Army men and women. There is some evidence that military women suffer from specific types of military outcomes related to stress than military men. A study of sick call diagnoses among personnel on U.S. Navy ships found significantly higher rates of personality disorder, stress, and adjustment reactions among women than among men (Hoiberg, 1980; Barnett et al., 1985).

In studies of mental health related consequences of job stressors specifically, women appear to experience more adverse outcomes than men (Heim, 1991; Houston, 1992; Matteo, 1987; Spielberger, 1994). Women reported more psychological distress, feelings of depression, nightmares, and feeling overwhelmed (Rossi, 1989). Further, some research on military populations indicates that minorities may represent another high risk group for experiencing adverse mental health outcomes due to stress on the job. Sutker et al. (1995) conducted a study of 653 war-zone-exposed and 259 stateside-duty troops and observed that ethnic minorities may be more vulnerable to psychological risk. The results suggested a tendency for minority, particularly male minority troops to report more psychological distress and PTSD symptoms (Thompson et al., 1997). In contrast, the possible impact of ethnicity did not extend to female minorities.

Research on mental health consequences of exposure to trauma in the military consistently demonstrate that this exposure can be related to the onset of various negative mental health outcomes, including depression, substance abuse, anxiety disorders, and personality disorders (Kulak et al., 1990, Weiss et al., 1995). By far, PTSD is the most widely studied psychiatric outcome associated with trauma (Waddell et al., 1993; Fairbank et al., 1993). A recent study by King et al. (1995) using the National Vietnam Veterans Readjustment Study data found that a malevolent environment (for example, poor food, water, climate) had both the strongest direct effect and the strongest total effect (direct + indirect) on PTSD outcomes. Furthermore, 26% of the women who served in Vietnam met lifetime criteria for PTSD and 8.5% were currently symptomatic (Norwood et al., 1997; Kulka et al., 1990).

The stress related to work-family role conflicts appears to have adverse mental health consequences for women. Women have greater exposure to ongoing strains both in the parental role domain and from combining the roles of parent and worker (Bowen et al., 1986; Simons, 1992; Greenglass, 1988). There is some evidence, however, that the role conflicts may actually have a somewhat greater impact on the psychological functioning of men than on women (Bowen et al., 1993).

### **1.2.2.3 Substance Abuse/Dependence Outcomes**

Findings conflict with regard to the substance abuse consequences of stress in general. A number of studies have reported a significant association between elevated rates of alcohol consumption and elevated levels of stress (Keane et al., 1988). Findings also conflict with regard to gender differences in the impact of stress on subsequent substance abuse. A study of 66 alcoholic women, found that stress was more closely associated with the onset of alcoholism in females than males (Dritschel et al., 1989; Fairbank et al., 1993). In contrast, other studies report that alcohol use was not associated with experiencing stress, but psychotropic medication use was (Brown-Rowat et al., 1990).

From the literature focusing on substance abuse outcomes due to job-related stressors specifically, jobs characterized by strain in the form of high physical demands and low skills were associated with increased risk of drug abuse/dependence syndromes. Largest point estimates for relative risk were observed in connection with active jobs that combined high physical demands with high decision authority (Muntaner et al., 1995). Analyses also suggest that women in this type of active job might be at especially high risk (Martin et al., 1985). Further, job stress may be more likely to result in substance abuse among women than men. Young (1987) found that women medical residents experienced a higher incidence and greater severity of personal or emotional problems than men and that these problems were 1) associated with an increased percentage of women men who: (1) used alcohol during the preceding year, (2) had used alcohol daily, (3) had increased their use of alcohol over the 2 years before the survey, and (4) had perceptions of being overweight and were on calorie-restricted diet.

Exposure to traumatic stressors have been strongly implicated in the elevated rates of substance abuse and dependence among veterans (McCall et al., 1992) and PTSD has been found to be highly co-morbid with substance abuse (Kulka et al., 1990). Women who served in Vietnam and had high levels of war zone stress were found to have significantly higher rates of

alcohol abuse and dependence than other women veterans of the Vietnam era, while women theater veterans who were exposed to lower levels of such stress did not have significantly more alcohol disorders than other women veterans of the Vietnam era (Kulka et al., 1990).

#### **1.2.2.4 Physical Health Outcomes**

There is an accumulating body of evidence to suggest that work-related factors may influence the onset of cardio-vascular disease, hypertension, migraines, peptic ulcers, ulcerative colitis, and diabetes among others (Greenglass, 1988). Similar to findings for mental health outcomes above, there is conflicting evidence that women are more susceptible to adverse physical outcomes due to experiencing stress (Cheren, 1989; Wolfe et al., in press). In a study by Bishop (1984), there were no significant gender differences observed in symptom reporting. In contrast, a longitudinal study of Navy personnel (Cheren, 1989) revealed that women continued to have higher total hospitalization rates than men.

#### **Blood Pressure**

James et al., (1989) found that aspects of both home and work life are important in understanding the daily variability of women's blood pressure. Results show that perceived job stress has a substantial and pervasive effect on the systolic blood pressure of the women in this study, such that the higher the perceived job stress, the higher the pressure in all environments over the course of the day, including the work environment and the subsequent home environment. This is a sharp contrast to relationships found with diastolic pressure, which suggest that stressors related to home life, possibly those associated with child care, have a pervasive effect on diastolic pressure (Aro, 1984; James et al., 1989; Steptoe et al 1999).

#### **Pregnancy**

There is a growing research base on pregnancy-related health outcomes among military women; however, findings are inconsistent and conflicting. In the past, active duty women who became pregnant were discharged. However, many of these women now choose to have children and continue their military careers (McNeary et al., 2000) In a study of health care service use during Operation Desert Storm (ODS) (Markenson and Raez, 1992), the most frequent reason for medical service use was to rule out pregnancy. Pregnancy-related hospitalizations became a major reason for leaving the site of operations. Studies have found that active duty military service women were in a higher risk pregnancy group than their civilian counterparts based solely on occupation (Tam 1998; McNeary et al., 2000). A study by Hoiberg and White (1989)

looking at health status of women in military observed a relatively high rate of spontaneous abortion compared with the general public. Adams et al (1994) found that antenatal hospitalizations due to pregnancy were more common among military women (24.8%) than civilian women (14.6%). In contrast, Messersmith-Heroman (1994) conducted a prenatal survey and postpartum chart review, and observed lower infant weight and gestational age was not significantly different between active duty women and their civilian counterparts. A study conducted by Rosen et al. (2000) found that, among active duty pregnant women, the presence of medical conditions and nonmarried marital status increased the risk for pre-term delivery. Possible explanations for the higher rates of preterm labor, medical complications, and pre-term delivery among active duty pregnancy women are physical work load, including heavy lifting with limited rest periods, and psychosocial stress in the workplace ( McNeary et al., 2000; Magann et al., 2000)

#### ***Overall Health***

In reviews of the literature on the relationship between stress and physical health, both Elliot (1989) and Bloom (1985) reported that the evidence linking stressful life events with subsequent physical disorder is substantial. Research suggested that major life disruptions contributed to the development of many disorders, ranging from minor to major, such as infections, hypertension, heart attacks, cancer, and headaches and gastrointestinal disturbance (Cheren, 1989; Elliot, 1989). Likewise, occupational stressors have been implicated in the development of coronary heart disease, hypertension, migraines, peptic ulcers, ulcerative colitis, and diabetes (Greenglass, 1988). Furthermore, victims of sexual harassment report negative health consequences such as increased headaches, decreased appetite, and sleep disturbance (Charney, 1994). Increasingly, research has shown that exposure to high levels of psychological stress (for example, traumatic stressors) can produce elevated rates of health complaints and physician visits (Wolfe et al., in press). Although this association is present in men, it seems especially pronounced in women. Unlike mental health outcomes, research findings suggest that men experiencing family-related stressors are more susceptible to physical health problems than women (Karasek et al., 1983). Other studies demonstrate that women in the military have higher rates of health service use than men (Briscoe, 1987; Nathanson, 1975; Verbrugge, 1985; Nice et al., 1994; Misner et al., 1987).

### **1.2.3. Buffers**

A number of factors can intervene between a stressor and its potential effects. We would like to briefly mention two sets of variables that may be seen as intervening, mediating, or buffering variables between stressors and outcomes: socio-demographics and social support. Sociodemographics such as age, income, education, and gender have all been found to affect the relationship between stressor and outcome (Beena et al., 1992; Bartz et al., 1986). Social support is probably the most widely studied buffer of stressor outcomes and has been found to be one of the most effective (Etzioni, 1984; Cohen et al., 1985; Greenglass, 1988).

The types of buffers in stressor–outcome relationships could be broadly categorized as socio-demographic, job-related and job environment, personality characteristics, stress-reducing activities, and social support (Ezoe et al., 1994). Aside from gender, socio-demographic characteristics such as age, marital status, income, and education have all been found to affect the relationship between stressor and outcome (Beena et al., 1992; Brown-Rowat et al., 1990; Bartz et al., 1986).

#### **1.2.3.1 Job-Related/Job Environment**

Job-related/job environment buffers include, for example, job satisfaction, quality of supervisor, years of experience on the job, number of career development activities and co-worker social support. Personality characteristics found to mediate the adverse affects of stress-related outcomes include such concepts as personality type, number and type of coping strategies, and “hardiness.”

#### **1.2.3.2 Social Support**

Social support is probably the most widely studied buffer of stressor outcomes and has been found to be one of the most effective (Greenglass, 1988; Etzioni, 1984; Cohen et al., 1985; Bowen et al., 1993, Kandel et al., 1985). Moreover, the magnitude of the impact of social support has been found to be associated with the source of the support: supervisor, co-workers, friends, spouse (Lazarus et al., 1985, Hobfoll, 1989). For example, supervisor support has been found in many studies to be one of the most important sources of support for women. In the Piedmont Health Survey (Landerman et al., 1989), social support was found to buffer the effects of depression. Social support can be broadly defined as the availability of help in times of need from supervisors, coworkers, family members, and friends. Women tend to use social support when available more often than men, and in some studies it has been found to be more

important to improving outcomes among women than among men (Houston et al., 1992, Lawrence, 1986). Some investigators have found social support to buffer stress related outcomes only under high stress situations (known as the stress-buffering hypothesis), while other investigators have found that social support has an effect on well-being that is independent of stress-level (known as the direct effect) (Solomon et al., 1986; Andrews et al., 1978).

Overall, the literature on buffers is mixed. Much of the inconsistency in findings might be related to important differences in study design across studies. A key difference is how stressors, mediators, and outcomes are defined. Often, stressors in one study are mediators in another. With this in mind, we provide a brief review of evidence in terms of job performance and mental health.

#### ***1.2.3.3. Buffers of stressor-job performance relationship***

Job performance outcomes related to stressors may be mediated by a number of demographic factors (Gutierrez et al.). Aside from gender, the most commonly studied buffers in this context include parenting status (Simons 1992; Kandel et al., 1985), number of children (Bowen et al., 1993; Lawrence, 1986; Kushnir et al., 1992), marital status (Maslach et al., 1985; Kandel et al., 1985), and type of occupation (Bowen et al., 1993). Overall, this literature is inconclusive (Schumm et al., 1994). There are few clear cut differences in the impact of buffers on job performance observed between men and women.

#### ***Job-Related/Job Environment***

Quality of supervisor is an important job environment buffer in the stressor-job performance relationship. Leadership has been found to be a major determinant in the psychological and physical health of members in combat (Norwood et al., 1997). For women in the military a very important buffer is unit cohesion and group identity (Solomon et al., 1986; Norwood et al., 1997).

#### ***Marital Status and Spousal Support***

For instance, Maslach and Jackson (1985) observed that employees who were married or had children experienced less burnout, regardless of gender. Other studies, however, demonstrate that parenthood is a positive buffer for men only. One study observed that women tended to have a stronger identification with the parent role than men (Simon, 1992): thus, parenthood was a stressor rather than a mediating factor. Maslach and Jackson (1985) observed

that employees who were married or who had children experienced less burnout. Among studies of working women, there are also few consistent findings. One exception is the role of marital status on job performance outcomes among working mothers. The study by Maslack and Jackson observed that married women with children experienced less burnout.

### ***Personality Characteristics***

With regard to personality characteristics that may buffer job performance outcomes, the availability of coping strategies appears to be a key buffer for women (Disalvo et al., 1988). Women consistently report more ability to use coping strategies for stress reduction than men (Style, 1956). Further, research indicates that, regardless of gender, personality type influences the number of, and the ability to use, coping strategies for stress reduction. Greenglass (1988) observed that Type A women and men, when compared with Type Bs, used significantly more coping strategies for stress. Results also report that the coping behavior of Type As is characterized by action-proneness, refusal of social support, denial of disappointment, and repression of fatigue (Stewart et al., 1992). Other studies observe that men and women use distinctly different types of coping strategies, with different consequences on job performance outcomes. One study observed 4 gender-related differences in coping techniques: "talking about the source of stress" (women significantly used this strategy more than men); "get sick and collapse" (also used by women more than men); "ignoring source of stress" (used by men more than women); and "direct confrontation" (used by men more than women) (Montgomery et al., 1988). Another personality characteristic described as a buffer is "parental commitment level". A study found that strains in the parental role had a significant effect on distress only for high commitment parents (Wexler et al., 1983).

#### ***1.2.3.4 Buffers of the stressor-mental health relationship***

One is a study by King et al. (1996) it was observed that women with unstable family backgrounds tended to report greater exposure to combat and to view the war zone as more harsh or malevolent. Racial differences were not found in rates of psychiatric disorders among Navy and Marine personnel (Hourani and Yuan, 1999). Rate differences in this study were found for rank (lower for officers), marital status (currently married and single lower than divorced, separated), age (higher rates for those under age 30) and gender (higher rates for women). Thus age, rank (which is highly correlated with education and income), marital status, and age can all serve as buffering agents. In a study of nurses in military hospitals (Jennings, 1990), years of

experience as a head nurse was a positive buffer between stress and psychological symptomology (Norwood et al., 1997). Direct effects for both internal locus of control and social support, while weak, were manifest as hypothesized, demonstrating a negative relationship with psychological symptoms. Buffering effects for locus of control and social support were not detected (Norwood et al., 1997). Similarly, a study by Norman (1988) of 50 nurse veterans reported that more mature women were less likely to develop PTSD symptoms (Kanner et al., 1981). Prior wartime experience has been identified as positively correlated to PTSD susceptibility among women. In a study of 76 non-treatment-seeking Vietnam vets and their response to Operation Desert Storm (ODS), (Wolfe et al., 1992) observed that most female Vietnam veterans experienced some intensification of stress-related symptoms during ODS, and that those who had previously reported high levels of PTSD were significantly more susceptible to greater distress (Driskell et al., 1989; McCall et al., 1992).

#### ***Marital Status***

Studies of non-military women have observed that marital status plays an important role in the stress-mental health status relationship for working mothers. In one study, single mothers reported more separation anxiety, less family cohesiveness, and less family organization than did married working mothers (Kelley et al., 1994).

#### ***Personality characteristics***

Personality characteristics, such as internal locus of control, coping strategies appears to influence the intensity of PTSD among military personnel working in war zones (Solomon et al., 1988). In this study of Israeli soldiers, researchers observed a significant relationship between locus of control, coping, and PTSD (Stansfeld et al., 1997).

#### ***Social Support***

In numerous studies social support has been found to be related to improved mental health outcome in non-combat situations (Solomon et al., 1986), following combat stress (Solomon et al., 1988), and directly demonstrating a negative relationship with psychological symptoms (Jennings, 1990). The Solomon et al. (1988) study, that found that social support measures reflected the subjective perception of social support rather than its objective existence (Stewart et al., 1988). Perceived social support was negatively related to PTSD intensity independent of locus of control (Stewart et al., 1988). A study comparing civilian mothers to military mothers found that both women achieved comparable social support scores; however,

they tend to use their social support resources slightly differently (Splonskowski, 1995). With regard to the non-military studies, for women and men, social support appears to be one of the most important mediators in the relationship between on-the-job and off-the-job stressors and mental health status outcomes and women report more social support than men (Etzioni, 1984). In a study conducted by Landerman et al (1986) life events were found to exhibit significantly stronger effects on depressive outcomes, among respondents with inadequate support than among those with adequate support (Dalgard et al., 1995; Cohen et al., 1983).

Research among women specifically is fairly consistent in observing that such factors as having friendly and helpful coworkers contributes to lower psycho-physiological symptoms (Wexler et al., 1983; Brugha, 1997, Lowe et al., 1997). Other studies have observed that this buffering effect is only present for depression (Dalgard et al., 1995; George et al., 1989). In the study by Dalgard et al., social support alone exerted little influence upon the course of mental health except in the case of depression. Personality characteristics determined the effect of social support. "Internals" (those who see themselves as the most important factor in controlling their own lives) did not need as much support from other people to cope with the stressors of life whereas "externals" (those who tended to have a feeling of powerlessness) needed the support of others to be able to cope.

In one study, social support has been found to have a mediating effect on the deleterious consequences of non-military traumatic events; however, the consequences of traumatic events experienced in the military were not affected by social support (Ren et al., 1999). This might be a good indication of the degree, levels and types of trauma suffered in the military and their long-lasting effects. Other studies have found a relationship between "homecoming" support and rates of PTSD in Vietnam Veterans (Johnson et al., 1997).

## 2.0 NATURE AND DESIGN OF THE STUDY

This study examines the stressors of Army women, the factors that ameliorate the effects of the stressors, and the stressors associated with various outcomes.

There is still much to be learned about the stressors of women in the military in general and, more specifically, of female active duty and reservist personnel. Although the stressors of military women have been found to be similar to the stressors of other women and although negative outcomes related to stress appear to be similar for both the civilian and military populations, more information is needed to develop effective intervention and prevention programs.

Data are needed on stressors and outcomes for both Army reserve women and a broad sample of Army active duty women. Early studies focused primarily on nurses and other small groups of women such as Military Police units. This is a comprehensive study of a wide array of stressors, buffers, and outcomes. Information is needed particularly on Army reserve women, who have been less well studied than Army active duty women.

It is important to obtain information on the different types of stressors and how such stressors relate to socio-demographic characteristics, occupation, etc. Prevention and intervention programs can then be targeted to high-risk groups of women. For example, the most serious stressors for enlisted women with children at home may be different from those for older female officers.

Factors that mediate stressors need to be understood as well. For example, does social support influence whether a particular type of stressor negatively impacts one woman and not another? What organizational structures and programs might be changed or developed to help female active duty and reservist personnel access and use potential buffers such as supportive services (for example, better child care)?

## 2.1 Hypotheses and Purpose

Our purpose is to: (1) identify the nature and extent of stressors and their outcomes for women in the female active duty and reservist personnel; (2) describe the relationship between stressors and buffers, including such mediating factors as socio-demographics and social support; and (3) make recommendations about strategies that might be employed to reduce stressors and their impact.

Our general hypotheses are:

- Exposure to stressors is associated with poorer outcomes, including subsequent health and mental health status, substance abuse, and retention.
- Some exposures are more pathogenic than others, and more severe exposure is more pathogenic than lower levels of exposure.
- Socio-demographic and other characteristics mediate the effect of stressors on outcomes.

Our specific hypotheses for the study are based on findings from the literature to date. In the text that follows, we list hypotheses from our original proposal, for which we were able to collect sufficiently detailed information to test the relationship in a multivariate context:

- Women with more serious daily hassles report more stress and have more negative outcomes than other women.
- Women with children in the home report more stress than women with no children.
- Women who work primarily with male soldiers report more stress and have more negative outcomes than women who work mostly with women or equally with men and women.
- Women in their first year of enlistment report more stress than other women. Older women report more stress than younger women, other than first-term women. Both older and first-term women have more negative outcomes than other women.
- Women who serve in a war zone or in a similar hostile situation where they are subject to threats on their lives have more negative outcomes than other women, controlling on age and education.
- The greatest sources of stress are: being a parent of young children, being in a predominately male unit, being in a unit where the male supervisors have a strong negative attitude toward women serving in their unit, and age.
- Mediating variables include socio-demographics (for example, age), support of colleagues, and family and friend social support.
- Negative outcomes associated with stressors include more use of sick time, more psychological distress, more use of alcohol, and less commitment to stay in the military.

We will examine these hypotheses in a multivariate framework, so that we can assess the independent effects of a variety of military stressors while controlling for potentially predisposing characteristics of the individual.

## **2.2 Technical Objectives**

This study was designed to comprehensively examine the experiences and conditions that are the most stressful to women in the female active duty and reservist personnel and that have the most frequent and/or most serious negative outcomes for female active duty and reservist personnel. We implemented this examination by: (1) conducting focus groups and (2) administering self-report questionnaires, in order to collect data on major stressors and outcomes from women currently in the Army active duty and Army reserve. The collected data were used to determine: (1) the nature, extent, and seriousness of the stressors; (2) the distribution on positive and negative outcomes; (3) which outcomes are associated with various types of stressors; and (4) the mediating effects of socio-demographic characteristics of the women, social and coworker support, and other factors.

## **2.3 Sample**

Experience in the military varies with the branch of the military in which one serves. Data on women from the different branches of the military needed to be examined separately because of the unique nature of each type of service. To conduct multivariate analyses, we estimated that we would need at least 800 women from each branch of the military that we sampled. In order to control costs, we limited data collection to two groups: the Army active duty and the reserves. We chose the Army active duty group, because it has the largest number of women of any branch of the military. As our non-active duty sample, we originally chose the National Guard but changed to the Army reserve, because reservists are most similar to the active duty component.

Because stressors are likely to vary by whether one is subject to rapid deployment, our sample included both women subject to rapid deployment and women in stable positions. We included both officers and enlisted women, married and single women, and women with and without children. Because the three largest occupational specialties of women in the Army active duty are administration, medical, and supply services, we believed that we would have no difficulty in obtaining reasonable numbers of subjects in these occupations. The final

occupational group that we sampled included women in the remaining occupations, creating a category of "Other." Finally, we tried to oversample from installations that had served in war zones or in military operations other than war in which one may have, nevertheless, been exposed to hostile fire, such as peacekeeping in Somalia. This oversampling was designed to allow us to include women who had served in regions where they were at increased risk of exposure to traumatic stressors.

For cost efficiency, we intended to limit our sample to those serving on the East Coast of the United States. Because of difficulties in obtaining cooperation and in obtaining data from a sufficient number of subjects, we also included Colorado and Texas in our data collection. The active duty, rapid-deployment installations included: Fort Bragg, North Carolina; Fort Stewart, Georgia; Fort Collins, Colorado; and Fort Hood, Texas. The stable installations included: Fort Belvoir, Virginia; Military Personnel Command (PERSCOM), Virginia; Walter Reed Army Medical Center (WRAMC), Maryland; Fort Meyer, Virginia; Fort Campbell, Kentucky; and Fort Riley, Kansas. The Army Reserve Support Commands (RSCs) included: Pennsylvania, Maryland, New York, Alabama, North Carolina, Georgia, Virginia, and Washington, D.C.

## **2.4 Data Collection**

This section describes the process of: (1) obtaining cooperation from installation commanders, in order to gain access to female soldiers to conduct focus groups and administer the survey questionnaire; (2) conducting the focus groups; (3) developing the survey questionnaire; and (4) administering the survey questionnaire.

### **2.4.1 Obtaining Cooperation and Access**

Prior to starting data collection, we needed access to Army installations and women soldiers. To this end, we sought endorsements for the study that could be used to help gain cooperation at individual installations. First, we prepared a briefing for the Deputy Assistant Secretary of the Army, Military Personnel Management Equal Opportunity Policy. We hoped that the Deputy Assistant Secretary would endorse the study and thereby increase the probability of cooperation from installation commanders.

Project staff, which included the principal investigator, the study coordinator, and our Army consultant, met with the Deputy Assistant Secretary and his assistant. The Deputy Assistant Secretary and his assistant expressed understandable concerns about the study,

particularly about conducting it at that time. One of the Deputy Assistant Secretary's two concerns was that we were planning to use the National Guard as our reserve sample. He felt that the National Guard was too heterogeneous in training and experience from state to state to allow any generalized statements to be made about the group as a whole. We agreed with his suggestion to use the Army reserve as our reserve sample instead.

Our study was funded at the peak of the sexual harassment complaints in the military in 1997. We were told that the upheaval in the military at that time was being used by some high-ranking officers and others outside the military to justify their agenda for reducing the roles of women in the military. The Deputy Assistant Secretary was concerned that conducting our study at that time could provide those favoring a reduction in women's roles with data on "problems" experienced by women soldiers. Without a comparison sample of men, he told us, problems reported by women soldiers might be portrayed as problems unique to women soldiers. We listened carefully to the important points he raised and assured him that we would frame our report in ways that the information could not be readily misused. His concern remained, however, and he was unwilling to give us a letter of support.

Our next attempt at gaining a letter of support was to contact our project officer. We asked her to write a letter stating that the Army was funding the study and to encourage officers to support us by giving us access to women soldiers. Our project officer said that she could not do this without first obtaining approval from the Army's legal department and stated that she would get back to us. When we did not hear from her, we contacted her and she said that she had not yet received approval. We contacted her a few more times over the next several months, but she always gave the same reply: "no approval yet." Eventually, we gave up and stopped contacting her. Thus, we had to go forward without any letters of support.

#### **2.4.1.1 Obtaining Approval for the Focus Groups**

Approval for conducting focus groups was obtained by our (retired) Army consultant, who contacted commanders of both the Army active duty and Army reserve whom she personally knew and requested access to the women based at their installations. Her request was granted, and access to the women for the focus groups was obtained.

#### **2.4.1.2 Administering the Survey Questionnaire**

Our survey questionnaire was to be self-administered in a group setting at the installations. (See Section 2.4.5). We contacted Army active duty and Army reserve commanders at strategically chosen locations, in order to solicit their support for our administering the survey questionnaire to the women at their installations. To allow time for the negative press about issues of sexual harassment in the active duty Army to decrease, we followed the recommendation of our consultant and began our survey of the Army reserve women first. This approach was also desirable because we knew that we would obtain fewer women at reserve locations, so it would take more months and more questionnaire administration sessions to obtain our target sample size.

To obtain access to the Army reserve women, we contacted an individual at the U.S. Army Reserve Command (USARC), to help us gain the support of officials in RSCs on the East Coast. We began by identifying the RSCs on the East Coast that contained units with a large proportion of women who were representative of the national population of women reservists in terms of race, rank, and occupation.

After choosing sites that satisfied our selection criteria, project staff members began developing strategies to recruit female reservists. The initial step consisted of an official memo sent by our USARC contact to each of the selected RSCs. This memo introduced the study and requested the names of unit-level commanders who might be contacted by the RTI project staff. We gave the letters sufficient time to reach the unit-level commanders and then made contact with their designated unit-level contacts via telephone. These unit-level contacts assisted with site visit logistics and provided demographic and descriptive information on unit members.

To obtain access to the Army active duty women, we contacted officials at the U.S. Army Medical Command (MEDCOM), the U.S. Army Forces Command (FORSCOM), and the Military District of Washington (MDW), to assist us in coordinating survey questionnaire administration with installation commanders. We recruited women who were representative of

the national population of Army active duty women, in terms of race, rank, and military occupation speciality (MOS) and included both those who would and would not be subject to rapid deployment. We obtained data on the distribution of Army active duty women across the United States from U.S. Army Manpower. These data assisted us in the identification and recruitment of active duty units, with a distribution of MOSs that met the criteria for national representative samples.

We contacted Army active duty commanders at the strategically chosen installations, in order to solicit their support for administration of the survey questionnaire to the women in their units. The process for coordinating questionnaire administration for Army active duty women followed the same process as that for Army reserve women. The Army active duty commander assigned a unit-level contact to coordinate the logistics of arranging the site visit to the installation and to assist in the coordination and recruitment process for survey administration. With the help of the unit-level contacts, we were able to facilitate questionnaire administration for Army active duty women.

#### ***2.4.1.3 Problems Encountered in Gaining Cooperation***

As described in previous text, we were unable to obtain letters of support. We also had great difficulties obtaining cooperation at individual installations. There appeared to be several reasons for this. One reason was simply that our liaisons at the units were often very busy and our need for assistance had to be fit into their other duties. Often, calls that we made were not returned and we had to call back a number of times; sometimes, we were never able to link up with the person. In some cases, we were not granted access. Even when we did get apparent cooperation, we often found that the arrangements we had made were not what we found when we arrived. Most often, fewer women showed up than we were expecting. Also, women from units with different characteristics showed up instead of the units that we had originally agreed on. In addition, the facilities that we arranged had sometimes become "unavailable," and we had to "make do" with facilities that did not well meet our needs.

We spent many months going through WRAMC's Internal Review Board (IRB). Although we followed WRAMC's recommendations about when and where to conduct interviews and although we spent at least 80 hours trying to set up the questionnaire administration, we only got a handful of subjects. We learned later that the procedures that were recommended to us probably contributed to the low turnout. So, we recommend against other

researchers trying to include Walter Reed as part of their sample. Their IRB procedures are geared to medical research and are very time consuming, including the requirement to answer many rounds of questions, the inclusion of a Walter Reed staff member as an investigator, the rewriting several times of IRB materials, and many contacts with IRB staff.

We include this information on the difficulties that we encountered in conducting our study so that our funding agency is aware of these problems. Perhaps procedures could be developed to reduce such problems, thus allowing for a more efficient use of funds.

#### **2.4.2 Information Materials**

We developed supporting materials that would be distributed during the administration of the survey questionnaire. We first designed an information sheet for commanders that introduced the study, provided general information on the issue areas addressed in the questionnaire, and explained what would be required of the women. The information sheet also included the names of researchers at RTI whom commanders could contact if they had additional questions. We developed a list of frequently asked questions (FAQs) similar to the information sheet. The FAQs were created to be handed out to the participants and used at the beginning of each questionnaire administration session. The women were instructed to read the FAQs as information was relayed verbally by the administration leader and were then asked to keep the FAQs, which contained contact information, in the event they had questions or concerns about the study or their rights as study participants. See Appendix A for a copy of the information sheet and Appendix B for a copy of the FAQs sheet.

#### **2.4.3 Human Subject Review**

Our questionnaire was administered anonymously; that is, no names or other identifying information was put on the questionnaire. (The questionnaire did contain information about age, rank, marital status, and education, but there was no way that we could identify individual respondents from this information.) A random identification (ID) number was assigned to each questionnaire, and the location of the administration was also noted. Therefore, our protocol was one of minimal risk.

All materials developed for the study were sent to RTI's IRB for review. The review ensured that all research being conducted by RTI on human subjects passed a battery of stringent requirements that were designed to meet the ethical treatment of all human research participants

as well as federal, human subject guidelines. Any concerns or clarifications that the IRB required were addressed, and revisions to the questionnaire and materials were made. A copy of the IRB approval is included in Appendix C.

The focus group protocol was developed and presented to RTI's IRB. A short focus group questionnaire was also developed for those who did not participate in a focus group because of too many participants and for field-grade officers. See Appendix D and Appendix E for a copy of the protocol and questionnaire, respectively.

A consent form was given to the women before they either participated in the focus groups or completed the short focus group questionnaire. The consent form explained the purpose of the research, the voluntary nature of their participation, and the risks involved in participating. Phone numbers were also listed for those who might have questions after participation was completed. See Appendix F for a copy of the consent form.

The survey questionnaire was sent to RTI's IRB as well as to WRAMC's IRB for review. WRAMC required that the survey questionnaire be reviewed and approved by their IRB prior to administration of the questionnaire to Army active duty women working at WRAMC. We completed their IRB forms and obtained permission to survey the women. A consent form was given to the women before they participated in the survey questionnaire. See Appendix G for a copy of the consent form.

#### **2.4.4 Focus Groups**

Because detailed information on stressors in the military was limited at the time our study began, it was important to start with exploratory research in developing the survey questionnaire. Although we had developed hypotheses about what the stressors in the Army active duty and reserve were, only by asking women who were serving in the Army active duty and reserve could we feel reasonably confident that the stressors we asked about in our questionnaires reflected the full spectrum of problems confronted by the Army active duty and reserve women. We used focus groups to ensure that we were including all of the essential domains of stressors of Army women.

In general, focus groups provide descriptive rather than epidemiologic information. In addition, because focus group research is relatively unstructured and intuitive, it is not a substitute for quantitative research. Rather, focused but informal discussion is used to generate a

broad range of responses that can be used in designing and compiling questionnaire items. Focus groups are most useful when there is an insufficient amount of information on a topic to decide the issues that should be asked about as well as the appropriate response categories. We used focus groups because the methods were well suited to explore the nature of stressors of military women.

In order to maintain high-quality focus group interactions that provided relevant information, we used a skilled and trained moderator. A clear plan for conducting the focus groups was created in the form of a focus group protocol.

#### ***2.4.4.1 Focus Group Protocol***

The goal of the focus groups was to determine: (1) the extent to which the literature on stressors of women, including Army women, fully and accurately reflected the nature of the stressors actually being experienced by Army women; (2) which stressors appeared to have the most impact/importance; and (3) which previously used scales and items needed to be augmented with new scales and items, targeting the stressors that appeared to be most important in this population.

Based on a review of the literature, we determined the general topical areas to include in the focus group protocol and developed the protocol to ensure consistent coverage of major topics across all focus group gatherings. The topic areas that we included were: job, marriage and family, deployment or the possibility of deployment, health, finances, harassment, and traumatic stress. Other topics that we included in the protocol were social support and negative outcomes that might result from stress, including drug and alcohol use, mental health problems, illness, marital problems, poor job performance, and intent to leave the Army. A copy of the protocol is included in Appendix D.

#### **2.4.4.2 Conducting the Focus Groups**

We conducted the active duty focus groups between July and September 1997 and the reserve focus groups in December 1997. The focus groups included women in a wide range of occupations and ranks, in order to learn about stressors and their outcomes across a broad spectrum of women serving in the Army. There was no major rank difference within a particular focus group, to encourage the participants to speak freely and openly. We accomplished this by conducting separate focus groups for enlisted personnel (E3-E4), junior noncommissioned officers (NCOs) (E5-E6), senior NCOs (E7-E8), and company-grade officers. If both a supervisor and her subordinate(s) volunteered to participate, the focus group leader would randomly dismiss either the supervisor or subordinate(s). We invited more women to participate than we could use to ensure that there were enough participants for the groups, and women who arrived after our maximum was achieved were dismissed with our thanks.

A short questionnaire was developed and given to the women who were dismissed from the focus groups for either of the two reasons just described. This questionnaire was used to acquire similar information to that obtained in the focus groups, to offset the feeling that the nonparticipants had come in vain, and to get information from additional women. Due to the small number of field-grade officers and the difficulty in recruiting them, we gathered their data via a short questionnaire as well. This questionnaire was similar to the one given to the women excused from the focus groups. A copy of the short questionnaire for those dismissed from the focus groups and for the field-grade officers is in Appendix E.

We recruited women through the help of our Army consultant. Appropriate personnel were contacted at the military installations of interest, and we secured permission and cooperation to conduct the focus groups. Participants were requested by their commanders to show up at the focus group location at the assigned time. Once they arrived, we explained the purpose of the focus groups and informed the women that, by reporting to the site and hearing our description of the study, they had fulfilled their commitment. Anyone not wishing to participate in the group was free to go. (The commanders previously had been apprized of these procedures.) Commanders were not told who showed up, who left after hearing the introduction, and who actually participated.

The focus group sessions lasted 2 hours. Two study team members attended each session, with one leading the focus group according to the protocol and the other taking notes. See Table 2.1 for the demographic characteristics of those who attended the focus groups.

**Table 2.1. Demographic Characteristics of Those Attending the Focus Groups\***

<b>Age</b>	
Under 30	27
30-39	24
40-49	10
50-59	0
60 or older	0
<b>Race</b>	
White	24
African American	38
Hispanic	3
Asian/Pacific Islander	1
Other	4
<b>Any Children</b>	
Yes	47
No	24
<b>Ages of Children</b>	
Under 12 years of age	41
13 to 17 years of age	14
18 years of age or older	4
<b>Marital Status</b>	
Married or living as married	41
Single	29
<b>Education</b>	
Less than high school graduate	3
High school graduate (or GED)	18
Some college	30
College graduate	16
Some graduate school	2
Graduate degree (M.A., Ph.D., etc.)	

\*This includes focus group participants as well as those filling out short questionnaires.

#### **2.4.4.3 Findings**

The findings from the focus groups were used to inform the development and formulation of the survey questionnaire. Some common themes of stress found in the focus groups include:

- Military hierarchy (for example, higher ranking enlisted soldiers feeling as if they are “put in the middle” between subordinates and supervisors);
- Sexual harassment;
- Being a “role model” to other women soldiers;
- Child care issues (for example, costs, schedules, separation from a child during training and/or deployment);
- Being treated as inferior (“not soldier material”) by some male soldiers;
- Financial problems;
- Treatment of women soldiers when they got pregnant;
- Work hours; and
- Weight maintenance.

A copy of the summary of the focus group questionnaire can be found in Appendix H.

### **2.4.5 Survey Administration**

#### **2.4.5.1 Developing the Survey Questionnaire**

Early in the study, we started reviewing measures related to the topics that we would be assessing in our study, such as occupational stressors, family stressors, and sexual harassment. We chose measures to review based on what we had seen cited in the literature; what we had used previously, and what was used by Dr. Robert M. Bray, an RTI colleague who had been doing social surveys of military personnel for many years. We also contacted the Army Research Institute (ARI) about different measures that were used previously to access these domains, including sexual harassment. We found the ARI measures useful on issues that were unique to the military, such as chain of command and military occupations.

Our general approach in creating the first draft of the core survey questionnaire was to rely on well-tested, existing measures. The measures that we chose included:

- Quality of Employment Survey/National Employee Survey (Ducharme, 1997);
- Duke Social Support Scale (George et al., 1989);
- 1995 DoD Sexual Harassment Survey (Bastin et al., 1996);
- General Health Questionnaire (Goldberg, 1972);
- Michigan Alcohol Screening Test (Pokorny et al., 1972);
- Medical Outcomes Study Sleep Scale (Stewart et al., 1988);
- Stressful Life Events Scale (Tennant and Andrews, 1976); and
- Daily Hassles Scale (Kanner et al., 1981).

These instruments were chosen because of their proven utility and/or because they enabled us to make comparisons with larger data sets.

After completing the focus groups and after analyzing the data from the focus groups and the short questionnaires, we modified the first draft of the core questionnaire. Using the results from the focus group analysis, we identified issues and topics that were raised in the focus groups but not adequately addressed in the item pool in the questionnaire. We developed additional questions and inserted them in the appropriate locations. The questionnaire was then pretested. We recruited women who had previously been in either the Army or the Army reserve and who would complete our draft questionnaire and provide comments. Our method for recruiting was by word of mouth and by an e-mail to staff members of a large research unit at RTI, to request volunteers. Comments and information about the draft questionnaire were provided immediately following completion of the questionnaire, and minor changes were made to the questionnaire based on these comments, before the final version was completed.

Two versions of the final questionnaire were developed; they were the same except for the reference on the questionnaire to either the: Army active duty or Army reserve. That is, one referred to active duty experiences and the other to reserve experiences. (See Appendix I for a copy of the questionnaire.)

Lengthy self-report questionnaires are likely to result in increased refusals to participate, incompletely filled out questionnaires, or poor data quality. Therefore, we limited our final questionnaire to items that could be completed in approximately 60 minutes, and we made it more user friendly and not easily prone to inadvertent errors. In some cases, this meant that we could not include measures that would have liked or that we used abbreviated versions of previously used measures (for example, stressful life events).

The questionnaire included information on demographics (for example, age, marital status), occupational speciality, assessment of stressors, buffers, and outcomes. We measured a broad spectrum of sources of stress, including daily hassles, life events, occupational stressors, gender-related stressors, sexual harassment, racial discrimination, and deployment.

#### ***2.4.5.2 Administering the Survey Questionnaire***

Survey data collection for the Army reserve took place between August 1998 and April 1999. For the army active duty, survey data collection took place between February and July 1999. We began by administering the survey to the reserve population because: (1) we were concerned that commanders might be reluctant to cooperate with us at the height of the sexual harassment media frenzy, for fear that findings from the survey might reflect negatively on them and their installations, and (2) data collection was expected to take longer for the reserve component than for the active duty component. The Army active duty and reserve units were surveyed separately, but the same format was followed in each duty-specific administration.

Survey administration required that two female project team members travel to each data collection site to proctor the session. As the women participants entered the administration room, they were directed to sit only in the chairs that had a FAQs sheet and a pen on the table in front of them. At those sites where space was available and equipment permitted (which was most sites), chairs were arranged so that there was one empty seat between the women participants, to ensure confidentiality.

Project team members created a proctor guide that provided specific instructions for conducting the data collection visit. The proctor described the study, its length and anonymity, and what would be asked of the respondents. The proctor also explained that participation was voluntary and that anyone who chose to leave was free to do so at anytime during survey administration. Women were also instructed to leave their completed questionnaire in a designated box on their way out.

Table 2.2 shows the number of reserve women who successfully completed the questionnaire, and Table 2.3 shows the number of active duty women who successfully completed the questionnaire, by installation. It is to be noted that we had great difficulty recruiting active duty officers to participate in the survey and their numbers were few.

**Table 2.2. Army Reserve Survey Completion**

<b>Reservist State</b>	<b>RSC</b>	<b>Completion</b>
PA	99th	41
PA	99th	70
DC	99th	120
NY	77th	100
AL	81 <sup>st</sup>	36
AL	87th	48
NC	77th	47
NC	USACAPOC	27
NC	108th	27
NC	81st	23
VA	310th	41
VA	310th	1
GA	359th	14
VA	80th	40
VA	80th	44
NC	359th	30
<b>TOTAL</b>		<b>709</b>

**Table 2.3. Army Active Duty Survey Completion**

State	Installation	Completion
VA	Ft. Myer	37
VA	Ft. Belvoir	76
MD	Ft. Meade	81
TX	Ft. Hood	180
KY	Ft. Campbell	40
CO	Ft. Carson	66
KS	Ft. Reily	42
GA	Ft. Stewart	108
VA	Ft. Belvoir	18
VA	PERSCOM	37
DC	Walter Reed Army Medical Center	12
NC	Ft. Bragg	144
DC	Walter Reed Army Medical Center	7
<b>TOTAL</b>		<b>848</b>

Completion of the survey questionnaire ranged from 40 to 90 minutes and overall questionnaire administration averaged 60 minutes.

## **2.5 Data Management**

We developed and implemented procedures for data receipt, data editing, and keying and formatting the data for the data files. In addition, we assessed the feasibility of utilizing data entry software that would enable the questionnaires to be automatically scanned into a database instead of keyed. However, we determined this process was not cost efficient for a survey of only 1,600 respondents.

The survey administration staff shipped the completed questionnaires from the data collection site to the data manager. The data manager labeled each completed questionnaire with an ID number that identified the site from which the data was collected. These labels maintained respondent anonymity and also allowed RTI staff to monitor the receipt of questionnaires and

the data entry process. Furthermore, for quality control purposes, the labels allowed for efficient identification of the host site and the number of completed interviews per site.

We initiated the development of specifications for editing the keyed questionnaires. These specifications were documented in a "code book." This extensive document guided the data entry process. Each completed questionnaire was sent to data entry, where a supervisor monitored the keying of all the data collected into a software program. The software program prompted access to the data for preliminary examination and subsequent analysis. The Code Book is located in Appendix J.

## **2.6 Analysis**

Analysis of the data included quality control (including skip pattern analysis), exploration and examination of data structure, variable and scale creation, descriptive analysis, factor analysis and construct validity (Cronbach's coefficient alphas), and multivariate analysis. First, a skip pattern analysis was performed. Then, the data were reviewed to determine which scales or items had significant variability and which did not. Viable and scales were created for analyses. The data structure was examined by performing factor analysis and examining coefficient alphas, which indicate how well a group of items are interrelated, that is, how well they measure the same construct. Final analysis files were created, and preliminary bivariate analyses were done to examine group differences for the variables and scales of interest. Finally, multivariate analyses were done.

### **2.6.1 Skip Pattern Analysis**

A SAS data file, with variable names and labels, was received from data entry. It consisted of answers to all the questions for active duty and reserve women. The first step in our analysis was to write two programs to assess data quality indices and then to write a program to produce a clean data set.

For this project, two data quality indices were defined. The first index was for the proportion of observations that contained skip errors. Several of the survey items ("gatekeepers") contained a response that instructed the respondent to skip succeeding items. If the respondent selected the skip response and then failed to skip the indicated item(s), a skip error occurred. Such a scenario might mean that the gatekeeper item was answered incorrectly or the followup items were answered incorrectly. We reviewed the gatekeeper item and the

followup items to determine which item(s) were incorrect. If, upon examination, it was clear that the gatekeeper response was incorrect, we changed it; otherwise, we changed the followup responses to "skipped." For example, if we asked whether the respondent had been stationed overseas and the respondent said "no" but proceeded to give detailed information on her overseas posting, we assumed that the gatekeeper response was incorrectly coded. However, in other skip patterns, the followup items did not clearly indicate whether the gatekeeper response should be "yes" or "no." In those cases, we kept the gatekeeper responses as coded and recoded the subsequent items to "skipped." The first data quality assessment program did an item-wise analysis to assess the proportion of respondents who failed to follow skip patterns. For the 51 items involved in skip patterns, the median proportion of failed skips was 9.3%, and 75% of all items had fewer than 17% failed skips. These values were reasonable, considering the large number of skip patterns (a skip instruction involving more than one gatekeeper) in the survey.

The second data quality index was for truly missing values. Unless a gatekeeper instructed the subject to skip an item, all items should have had a "non-missing" response. The second program computed the proportion of missing values for each item, ignoring values that were missing due to properly followed skip instructions. The proportion of responses that were missing were small for most of the 350 eligible items. The median proportion of missing responses was less than 3%, and the upper quartile was less than 6.5%. Some items had large proportions of missing responses, more than 30%. These were items D19-D22, H13 and H14, and H18-H22, all of which involve complex skip patterns.

Although we also developed a program to determine inconsistencies in the data, we found that there were virtually no items in the questionnaire for which inconsistencies could not be explained by some unusual circumstances. Therefore, we made no changes for inconsistencies. The final data quality program cleaned the data. This consisted of changing a variable value to "missing" when the gatekeeper indicated the item should have been skipped.

### **2.6.2 Exploration and Inspection of Data Structure**

The next task was to inspect the data and determine what variables had sufficient variability and low enough levels of missing data to examine in a multivariate framework. Most of the items that we had proposed to examine in our multivariate analyses appeared to have sufficient variability to examine. However, there were a few that did not. We were unable to use the same variables in our multivariate analyses because so few individuals reported (for

example, being unable to perform normal activities for more than 1 day, past year use of illicit drugs, recent sexual assault, and recent physician visits).

Regression involves the use of many variables and a case cannot be used in regression if it is missing on any of the predictor variables. Even a relatively low level of missing data on a particular variable (for example 50 cases) can cause difficulties because, if other variables in the regression also have similar levels of missing data, the sample size for the regression quickly drops off. Thus, many variables that we would have liked to examine in our regressions had to be dropped in order to maintain a reasonable sample size for the regression. Variables that were dropped because of missing data are discussed in Section 2.6.6.

### **2.6.3 Variable and Scale Creation**

Our variable creation consisted of modifying individual items and creating scales. For some domains in this study, we used intact scales: The BMAST and the General Health Questionnaire (GHQ) are two examples of these. However, for some constructs that we wished to assess, either the scales were too long and complex and/or they did not well capture some issues specific to Army women. In such cases, we shortened and/or modified the scales to fit our constraints and to address issues that we considered important. The General Hassles Scale and the Stressful Life Events Scale are examples of scales that we shortened and slightly augmented. Finally, there were constructs that we wished to assess for which we could find no good items or scales. In such cases, we created our own variables.

How this was done for each individual variable or scale is described in the descriptive findings section for that domain. However, there are some consistencies across the variable creation:

- In many cases, the variable used for the descriptive presentation was not the same as the variable used in the multivariate analysis. First, many more variables are provided in the descriptive analysis than were used in the multivariate analysis. Second, descriptive variables are often provided with many answer categories. For our logistic regressions, in most cases, we limited the number of response categories to three for interoperability (unless the variable was a continuous one such as age).
- For modeling purposes, predictor and control variables were created such that the lowest level of the variable represented (1) the least number of problems or (2) the group that we hypothesized to have the least number of problems. For example, Whites were hypothesized to have fewer problems than other racial or ethnic groups. Therefore, Whites had the lowest value in the coding scheme, so they would be the omitted category in the regression analysis. For number of daily hassles, the least

number of hassles had the lowest value. In most cases, that meant that the least number of problems received a score of zero.

- For modeling purposes, buffer variables, such as social support or coworker support, were coded such that higher values reflected greater buffering qualities. For example, higher scores were given for higher levels of perceived social support.
- For outcome/response variables, coding was done such that a higher score reflected more of the "outcome." For example, higher values on retention meant the individual was more likely to stay in. Higher values on the mental health problems variable, GHQ, represented higher levels of mental health problems. Higher scores on attitude toward the Army meant a better attitude.

### **2.6.3.1 Imputations**

Although most respondents answered most questions, there was enough missing data on some questions that it presented a particular problem for modeling. If 40 people did not answer item A, 40 others did not answer item M, and 60 others omitted item Z, the total number of respondents available for analysis in our logistic regression models soon dwindled. One thing we did in the creation of our scales to decrease this problem was to use imputation.

There are two commonly used imputation methods (Schafer,1997). If all items in a scale have the same metric, that is, if they all have the same answer categories or similar answer categories with the same number of answer choices, one can take the average (mean) of the non-missing items on the scale for a particular individual and use that as the value for any missing items. Typically, this is only done if less than one-half of the items are missing. For example, you may have a ten-item scale in which all questions have the same answer categories that are coded 0 for very dissatisfied, 1 for somewhat dissatisfied, 2 for somewhat satisfied, and 3 for very satisfied. If one item in the ten is missing, you may impute the missing item by taking the mean of the non-missing items and inserting that value for the missing item.

We were unable to use this procedure for a number of our scales, because the scales were made up of items with different answers and different numbers of answer categories. We chose instead to do our imputations in a different way. For this procedure, one determines the mean for a particular item by using the responses from individuals in the sample who are not missing on that item and then replaces the missing item with the mean value. For example, for our "Satisfaction with Social Support" variable, three of the items have three-answer categories and the fourth item has two-answer categories. In such a case, if the answer for one item was missing for a particular respondent, we would insert for that item the mean for all respondents in

the sample who were not missing on the designated item. Again, with one exception, items were only imputed if less than one-half of the items in the scale were missing.

The exception to this rule was for the variable, "attitude toward the Army." This variable was made up of only two items—I1 and I2. These items came near the end of the questionnaire, and there was a fair amount of missing data on them. Therefore, for use in our models, we created two versions of this variable: one in which we did no imputations (because it was impossible to have less than one-half of the items in the "scale" missing) and a second in which we imputed the missing item from the item present. We then ran two models using the two versions to see how they differed. We were concerned that we would have to eliminate a lot of independent variables from the regression because of small sample sizes if we did not impute the outcome variable.

In creating new scales or modifying old scales, we tried to use logical cutoff points for the variable creation. The variable creation section for each variable describes how the cutoff points were chosen.

#### **2.6.4 Production of Descriptive Statistics for Study Variables**

After the analysis data sets were created, we conducted preliminary descriptive analyses, which tabulated the frequencies and/or means of the variables of interest. Variables were tabulated separately for active duty enlisted women, reserve enlisted women, and reserve officer women. Only a few women officers from the active duty component participated in the survey. (The active duty sample had only 5.7% officers, and the reserve sample had 31.2%.) The "total" column in all of our tables, however, includes data for the entire sample; that is, the "total" column includes data for the active duty officers as well as for the three rank/branch groups that are broken out separately.

Data were presented unweighted (discussed in Section 3). Our samples were relatively small and did not sufficiently well-match the characteristics of the total force for us to justify the presentation of these data as weighted prevalence estimates for the total force.

As part of the presentation of our descriptive analyses, we included information on factor analyses that were done either on population samples from other studies or, if these were unavailable, on the scales for our sample. Cronbach's coefficient alphas were also provided,

which ranged from 0 to 1, and described the extent to which the items were interrelated and so measured a single construct.

### **2.6.5 Multivariate Analyses**

We felt that it was important to analyze the active duty and reserve data separately, due to the many different characteristics of the two groups. Because the active duty component had so few officers (5.7%, compared to 31.2% in the reserve sample), only the enlisted members of the active Duty sample were included in our multivariate models. Officers were included in the reserve models, and a variable representing whether the subject was an officer, junior enlisted, or senior enlisted was used. For active Duty models, a variable representing whether the subject was junior or senior enlisted was included. Modeling of each outcome measure was conducted in a series of steps, separately for Army active duty and reserve.

The following outcome domains were examined: (1) mental health (morale and GHQ), (2) drinking problems, (3) performance, (4) functioning (days cut back or not worked), (5) attitude toward the Army (two versions), and (6) retention.

The following predictors were examined in relation to our outcomes of interest:

- Job stressor variables (pressure, autonomy, and working conditions);
- Characteristics of supervisor and job satisfaction;
- Stressful life events;
- Daily hassles;
- Traumatic events;
- Racial discrimination;
- Sexual harassment, including gender discrimination;
- Woman in a man's occupation;
- Financial status;
- Marriage and family variables;
- Deployment;
- Demographics (age, race/ethnicity, years in service, and occupation); and
- Military characteristics (rank).

## 2.6.6 Model-Building Process

Eight outcome variables were modeled as a function of a large set of independent variables which were divided into three types: demographic/background, stressor, and buffer. These are described below.

All response variables were modeled using generalized linear models. Specifically, seven ordered, categorical response variables were modeled using *proportional odds* logistic regression, and the single continuous variable (GHQ) was modeled using ordinary, least squares regression. Models were developed for two populations, active duty (overall n=772) and reserve (overall n=686), for a total of 16 models.

All models were of the form:

$$f(y)=BX$$

where  $f(y)$  is a function of the response variable,  $y$ , and  $BX$  is a linear function of the independent variables contained in  $X$ . For the continuous variable, GHQ, the function of  $y$  is the identity,  $f(y)=y$ . For the ordered, categorical response variables, the function of  $y$  is the *logit function*:

$$f(y_i)=\log[y_i/(1-y_i)]$$

where  $y_i$  is the probability of a response less than or equal to category  $i$  of the response variable. The exponentiation of this function,  $y_i/(1-y_i)$ , is called an *odds*. For example, consider the variable "Days Cut Back." There are three response categories. 1 for 5+ days, 2 for 1-4 days, and 3 for 0 days. Two response functions are formed:

$$f(y_1)=\log[y_1/(1-y_1)]=\log[\text{probability}(\text{response}=1)/\text{probability}(\text{response}=2 \text{ or } 3)] \text{ and}$$

$$f(y_2)=\log[y_2/(1-y_2)]=\log[\text{probability}(\text{response}=1 \text{ or } 2)/\text{probability}(\text{response}=3)].$$

There is no function  $f(y_3)$ , because there are only three response categories. So, the probability of a response value less than or equal to 3 is always one. The *proportional odds* model forces changes in these functions associated with changes in some independent variable to be equal in the sense that

$$f(y_1|X_i)/f(y_1|X_j)=f(y_2|X_i)/f(y_2|X_j)$$

for some values of the independent variables  $X_i$  and  $X_j$ . As a result, only one parameter, the *odds ratio*, is necessary to estimate changes in both response functions associated with changes in each independent variable. Proportional odds assure that the mean change in the response variable is monotonic and proportional with respect to changes in a response variable. This is desirable behavior for associations involving ordered responses.

For all models, reference cell coding was used to obtain parameter estimates. This coding scheme returns estimates of the differences between levels of each variable and a reference level. For example, the race variable uses "White" as the reference value. The parameter estimate for "Black" is the estimated difference between "Black" and "White." For the continuous response, GHQ, this is the mean difference; for the ordered, categorical response variables, this is the odds ratio.

Odds ratios have a theoretical range from 0 to positive infinity. An odds ratio of 1 indicates no effect, whereas odds ratios farther from 1, either towards 0 or positive infinity, indicate larger effects. Very small odds ratios, close to 0, indicate large effects, but they are easy to misinterpret as small effects. For example, an odds ratio of .33 may seem small, but it indicates that the odds for the reference group is three times that for the comparison group ( $1/3=.33$ ). To avoid confusion, we have included a column labeled "absolute odds ratio" in the tables. When the odds ratio is less than 1, the value in this column is the inverse of the odds ratio; otherwise, the value is the odds ratio.

#### **2.6.6.1 Demographic Variables**

There were seven demographic variables: (1) a1: age; (2) marstat: marital status; (3) racehisp: race/ethnicity; (4) job\_cat: occupational category; (5) enlist: junior vs. senior enlisted, enlist2: junior vs. senior enlisted vs. officer (for the reserves group); (6) yrsincs\_mod: years in current service; and (7) e9\_cat: whether the respondent's had children under 18 living with her.

#### **2.6.6.2 Predictor/Stressor Variables**

Originally, 26 unique stressor variables (and alternate versions of 3 unique variables) were to be considered for the models. However, due to the large number of missing values, several stressor variables were dropped from consideration.

For each group, seven unique stressor variables were dropped: (1) harupst2: how upset by sexual harassments, (2) gendis: gender discrimination, (3) c35\_mod: proportion of men/women

in work group, (4) any trauma during the last 12 months, (5) sexist\_mod: sexist behavior, (6) recastl: recent sexual assault, and (7) hurt: career hurt because a racial minority. Additionally, gendis2\_mod, an alternate version of gendis (gender discrimination), was dropped from the active duty enlisted group only. These variables all had at least 40 missing values within each group.

The stressor variables that were not dropped were: (1) deployed: longest deployed, (2) warzone: deployed or stationed in a war zone or hostile area, (3) hostile: stationed in a war zone, area of physical danger, (4) d1\_score\_cr: score on stressful life events scale, (5) tothassle\_mod: total number of daily hassles checked, (6) d7rec\_mod: how bothered by hassles, (7) jobprsr\_mod: job pressure, (8) lowauton\_mod: low autonomy, (9) workcond\_mod/workcond\_mod2: working conditions, (10) sxaslt1: sexual assault, (11) nsxaslt: non-sexual assault, (12) anyaslt1: any assault, (13) g5\_mod: difficulty maintaining weight standard, (14) sleepScore: sleep problems, (15) finstrain\_mod: financial strain, (16) crudeScale\_mod: crude/offensive behavior scale, (17) sexatt\_mod: unwanted sexual attention, (18) sexcoer\_mod: sexual coercion, (19) signhar\_mod: total sexual harassment, and (20) recsxaslt1: recent sexual assault (an alternate version of recastl). The gendis2\_mod variable (an alternate version of the dropped variable gendis: gender discrimination) was kept for consideration, in the reserve group only.

#### **2.6.6.3 Buffer Variables**

Nine unique buffer variables (and an alternate version of one variable) were considered for the models: (1) job\_satisfy: job satisfaction, (2) perceive\_ss\_mod: perception of social support, (3) satisfy\_ss\_mod: satisfaction with social support, (4) affect\_cw\_mod: affective coworker, (5) instrum\_cw\_mod: instrumental coworker, (6) inform\_cw\_mod: informational coworker, (7) stress\_red\_mod/stress\_red\_mod2: number of hours of stress-reducing activities, (8) qsupervisor\_mod: quality of supervisor, and (9) spouse\_cat: relationship with spouse.

#### **2.6.6.4 Building the Models**

The model-building process for each of the eight response variables for each population proceeded in the same way. First, the seven demographic variables were forced into the model. These variables were included in all models, regardless of the magnitude or direction of their effect or their p-values, so that the independent effects of stressor and buffer variables could be assessed.

A two-stage, stepwise regression was then performed to select a set of stressor, buffer, and interaction variables. First, the full set of stressor and buffer variable main effects was considered in the model, with demographic variables forced in. The criterion for inclusion in the model was a p-value less than 0.10. After the main effects model was determined, interaction terms for the stressors and buffers, retained in stage 1 were developed. The second modeling stage involved a stepwise consideration of these interaction terms in a model, with all of the demographic variables, and the stressor/buffer main effects from stage one forced in. Again, a p-value less than 0.10 was the inclusion criterion. Finally, the magnitude and direction of the parameters from this model were examined for theoretical plausibility.

## **3.0 BACKGROUND VARIABLES**

### **3.1 Measurement**

This section contains demographic and background information on our sample of Army women. Background variables such as demographics and military characteristics were used as controls in our model. Background variables used in the descriptive analyses included age, education, rank, race, ethnicity, occupation, years served in the Army active duty, years served in the reserve, marital status, whether head of household, and number of children in the household.

These variables were essential in both the descriptive and multivariate analyses because they:

- Provided a description or portrait of our sample population;
- Allowed us to compare our sample with the Army total force; and
- Controlled for group differences in the analysis.

### **3.2 Variable Creation**

Items used in this analysis include A1-A7, B1, E1, and E9.

#### **3.2.1 Age (A1)**

This variable was assessed by item A1: How old were you on your last birthday? We presented this variable as the age categories 18-19, 20-24, 25-29, 30-39, and 40 or older. Also included for the review of the reader are the mean and standard deviation for each rank/branch group.

#### **3.2.2 Education (A5)**

Level of education was assessed by item A5, with eight possible responses:

- 1 = Did not graduate from high school;
- 2 = GED or ABE certificate;
- 3 = High school graduate;
- 4 = Trade or technical school graduate;
- 5 = Some college but not a four-year degree;
- 6 = Four-year college degree (B.A., B.S., or equivalent);
- 7 = Graduate or professional study but no graduate degree; and

- 8 = Graduate or professional degree.

The education variable was created by collapsing categories 2, 3, and 4 to create the category “high school graduate/GED/trade or technical school” and by collapsing categories 7 and 8 to create the category “any post-graduate studies.” Only 47 subjects out of 1500 responded that they “did not graduate from high school.” These responses were coded as “missing” on the education variable. The resulting education variable was a four-level categorical variable:

- 1 = High school graduate/GED/trade or technical school;
- 2 = Some college but not a 4-year degree;
- 3 = Four-year college degree (B.A., B.S., or equivalent); and
- 4 = Any post-graduate studies.

### **3.2.3 Rank (A4)**

Data on rank were collected using item A4: What is your current rank? Women were asked to select a response from the following categories: E1-E4, E5-E6, E7-E9, WO1-WO2, WO3-WO5, O1-O3, O4-O6, and O7-O10.

In the active duty group, about 32 subjects responded with WO1-WO2 or WO3-WO5, and 33 subjects responded with O7-O10. Because there were so few individual in these groups, we thought it did not make sense to break them out as a separate group for our descriptive or multivariate analyses. So, they were coded as missing on the Rank variable. Their information, however, is included in the data for the “total” column in our descriptive tables. Of the reservists, subjects who responded WO2-WO5 (n=91) or O7-O10 (n=121) were coded as reserve officer for our presentation of rank/branch groups. For presentation in this section, the rank variable was created as a five-level categorical variable: E1-E4, E5-E6, E7-E9, O1-O3, and O4-O6.

### **3.2.4 Race (A7)**

Race data were collected by asking respondents to select all of the responses from the following categories that best described them:

- 1 = American Indian/Native American/Alaskan Native;
- 2 = Native Hawaiian or Pacific Islander;

- 3 = Black/African American;
- 4 = Asian;
- 5 = White/Caucasian; and
- 6 = Other.

### **3.2.5 Ethnicity (A6)**

Hispanic ethnicity was measured using item A6: Are you of Hispanic or Latino origin or descent? The Hispanic ethnicity question was also collapsed with the race data to create a four-level race/ethnicity variable:

- 1 = White Non-Hispanic;
- 2 = Black Non-Hispanic;
- 3 = Hispanic; and
- 4 = Other.

### **3.2.6 Occupation (B1)**

Information on job categories was collected with item B1, using lists that differed by rank (enlisted vs. officer). Respondents were provided job descriptions to facilitate their category selection and were asked to select the one category that best described their military job from the following:

#### **Enlisted**

- 1 = Infantry, Gun Crew, or Seamanship Specialist;
- 2 = Electronic Equipment Repairman;
- 3 = Communications or Intelligence Specialist;
- 4 = Health Care Specialist;
- 5 = Other Technical or Allied Specialist;
- 6 = Functional Support and Administration;
- 7 = Electrical/Mechanical Equipment Repairman;
- 8 = Craftsman;
- 9 = Service and Supply Handler; and
- 10 = Non-Occupational.

## **Officer**

- 1 = General Officer or Executive;
- 2 = Tactical Operations Officer;
- 3 = Intelligence Officer;
- 4 = Engineering or Maintenance Officer;
- 5 = Scientist or Professional (not involved with health care);
- 6 = Health Care Officer;
- 7 = Administrator;
- 8 = Supply, Procurement, or Allied Officer; and
- 9 = Non-Occupational.

Job category descriptions were provided for respondents to refer to (pages 4-5 of the questionnaire); they can be found in Appendix I. These job categories were collapsed into the five most common job categories for women using the following formula:

- Communications = enlisted categories O2 and O3 and officer categories O3 and O4;
- Medical = enlisted category O4 and officer category O6;
- Administration = enlisted category O6 and officer category O7;
- Supply = enlisted category O9 and officer category O8; and
- Other = all other categories.

The occupation variable presented below was created by further collapsing the occupations to create a four-level categorical variable:

- 1 = Communications and Other;
- 2 = Medical;
- 3 = Administration; and
- 4 = Supply.

### **3.2.7 Years in Active Duty Service (A2)**

Data on years served in active duty in the Army were collected using item A2, as a continuous variable: How many years have you served (did you serve) on active duty in the Army? For analysis purposes, the distribution of these data was carefully examined and the variable "Years Served" was created as a six-level categorical variable:

- Less than 1 year (includes 0 years);
- 1-2 years;
- 3-5 years;
- 6-10 years;
- 11-15 years; and
- 16 or more years.

Note that many active duty enlisted women may have responded 0 for years served in the reserve, and many reservists may have responded 0 for years served in active duty. These responses are coded as "less than 1 year."

### **3.2.8 Years in Reserve Service (A3)**

Data on years served in the reserve were collected using item A3, a continuous variable: How many years have you served in the Army reserve? For analysis purposes, the variable "Reserve Years Served" was created as a six-level categorical variable:

- Less than 1 year;
- 1-2 years;
- 3-5 years;
- 6-10 years;
- 11-15 years; and
- 16 or more years.

### **3.2.9 Marital Status (E1)**

Marital status was collected as a five-level categorical variable: What is your current marital status? Applicable responses were:

- 1 = married or living as married;
- 2 = separated and not living as married;
- 3 = divorced and not living as married;
- 4 = widowed and not living as married; and
- 5 = single, never married, and not living as married.

For the descriptive data, categories 2, 3, and 4 were collapsed and the new marital status variable was a three-level categorical variable:

- 1 = married or living as married;
- 2 = divorced/separated/widowed and not living as married; and
- 3 = never married, single and not living as married.

### **3.2.10 Children under 18 (E9)**

Data were collected to determine how many children under the age of 18 years were living with the women at the time of survey administration, using the variable: How many of your children under age 18 are living with you (at your present duty location)? This variable was originally a continuous variable and was recoded into a two-level categorical variable: 1 = none and 2 = any.

### **3.2.11 Head of Household (E1, E9)**

This variable was created to determine how many women were unmarried (either separated, divorced, widowed, or single and not living as married) and had children under age 18 living with them at their present location.

### **3.2.12 Model Variables**

For the modeling, we used "Years Served." For active duty enlisted women, this was the number of years served on active duty; for reserve women, this was the number of years served in the reserve.

### 3.3 Descriptive Findings

Table 3.1. Sample Characteristics by Service Branch (Percent)

Descriptor		Total (n=1505)	Active Duty Enlisted (n=765)	Reserve Enlisted (n=468)	Reserve Officer (n=207)
Age	18-19	6.05	8.5	5.6	0.0
	20-24	26.8	39.3	20.3	0.0
	25-29	18.9	23.3	16.0	7.7
	30-39	30.1	24.7	33.8	39.6
	40 or older	18.1	4.2	24.4	52.7
	Mean Age		26.58	32.58	40.41
	Percent Missing		(6.57)	(9.36)	(7.91)
Standard Deviation		0.91	1.26	2.36	
		Total (n=1476)	Active Duty Enlisted (n=756)	Reserve Enlisted (n=448)	Reserve Officer (n=207)
Education	High school graduate/ GED/technical school	26.7	36.6	26.1	-
	Some college	44.1	53.3	51.8	7.7
	4-year college degree	13.6	6.6	12.7	34.3
	Any post-graduate	15.6	3.4	9.4	58.0

### 3.4 Major Differences

Overall, almost 50% of the sample is between 25-39 years old, although there were significant differences in age distribution across the rank/branch groups. In the active duty enlisted group, 63% of the women are between the ages of 20-29, with a greater proportion between the ages of 20-24. More than half of the reserve enlisted women are age 30 or older, and more than half (53%) of reserve officer women are 40 years of age or older, with an overwhelming 92% of this group 30 years or older at time of survey administration.

More than half (58%) of the women in the total sample had some college or a degree from a four-year college. Across rank/branch groups, more than half of the women in both the Army active duty enlisted women and reserve enlisted women had some college, but a minority had a college degree. Among reserve officer women, 92% had at least a four-year college degree.

As one would expect, the reserve officer population is older and more highly educated than the other two rank/branch groups.

**Table 3.2. Years in Service, Rank, and Occupation by Rank/Branch (Percent)**

		<b>Total (n=1511)</b>	<b>Active Duty Enlisted (n=769)</b>	<b>Reserve Enlisted (n=469)</b>	<b>Reserve Officer (n=208)</b>
<b>Years in Army Active Duty</b>	Less than 1	22.4	2.6	45.0	51.0
	1-2	23.1	30.8	19.0	7.7
	3-5	21.8	29.8	13.0	13.9
	6-10	16.1	18.7	11.7	15.9
	11-15	8.5	9.1	5.5	9.1
	16 or more	8.0	8.9	5.7	2.4
		<b>Total (n=1506)</b>	<b>Active Duty Enlisted (n=760)</b>	<b>Reserve Enlisted (n=471)</b>	<b>Reserve Officer (n=211)</b>
<b>Years in Reserve</b>	Less than 1	49.3	88.8	2.9	0.5
	1-2	11	6.3	19.1	10.9
	3-5	10.3	2.84	22.9	10.4
	6-10	11.1	1.6	20.8	27
	11-15	8.6	0.5	14.4	26.1
	16 or more	9.7	-	19.7	25.1
		<b>Total (n=1523)</b>	<b>Active Duty Enlisted (n=772)</b>	<b>Reserve Enlisted (n=474)</b>	<b>Reserve Officer (n=212)</b>
<b>Rank</b>	E1-E4/Junior	44.3	59.6	45.3	-
	E5-E6/Senior	26.9	31.6	35.0	-
	E7-E9/Senior	10.6	8.8	19.6	-
	O1-O3	10.1	-	-	57.1
	O4-O6	8.1	-	-	42.9
<b>Occupation</b>	Administration	36.0	37.0	43.7	19.4
	Communications or Other	22.8	29.9	13.4	16.1
	Medical	24.2	12.2	27.7	54.5
	Supply	17.0	20.8	15.1	10.0

As is often found in reserve samples, the group has a bimodal distribution: About half reported 0 for years in active duty; most of these were individuals who had never served in active duty, and the other half had served on active duty. Only a small proportion of active duty enlisted women reported serving less than 1 year of active duty; most (61%) had served 1-5 years. Similarly, most active duty enlisted women (89%) reported having served less than 1 year

in the reserve; most of these had not served in the reserve. The near majority (44%) of reserve enlisted women had served 3-10 years in that branch, but there was a good distribution across all years of service over 1 year. Three quarters of reserve officer women had served 6 or more years in the reserve.

The majority (59.6%) of active duty enlisted women were junior enlisted; a slight majority of reserve enlisted women were senior enlisted. We had not quite equal numbers of O1-O3 and O4-O6 reserve officers.

Overall, the administration military occupation specialty (MOS) was the most frequently reported. Reserve officer women differed notably from the overall distribution; their rate of reporting a medical MOS was twice to four times that of active duty enlisted women and reserve enlisted women.

**Table 3.3. Race/Ethnicity and Race by Rank/Branch (Percent)**

		<b>Total (n=1475)</b>	<b>Active Duty Enlisted (n=756)</b>	<b>Reserve Enlisted (n=449)</b>	<b>Reserve Officer (n=207)</b>
<b>Race/ Ethnicity</b>	White, not Hispanic	34.8	33.7	26.1	49.3
	Black, not Hispanic	48.5	46.3	62.1	35.3
	Hispanic	10.1	12.7	7.1	7.7
	Other	6.7	7.3	4.7	7.7
		<b>Total (n=1523)</b>	<b>Active Duty Enlisted (n=772)</b>	<b>Reserve Enlisted (n=474)</b>	<b>Reserve Officer (n=212)</b>
<b>Race*</b>	White/Caucasian	37.1	36.5	27.4	52.8
	Black/African American	48.5	46.9	60.8	34.9
	American Indian/ Alaskan Native	3.4	4.1	2.5	3.3
	Native Hawaiian/ Pacific Islander	0.7	1.0	0.2	0.5
	Asian	1.9	1.8	1.3	2.8
	Other	9.8	12.7	7.0	7.5

\*Respondents were asked to select all those that best described them; therefore, the columns may add up to >100%.

Almost 50% of the total population is Black non-Hispanic, with the reserve enlisted group having the largest proportion (62%) of Black non-Hispanic women across the rank/branch groups. About 86% of the sample overall reported being Black or White. Totals for the race

categories equal more than 100%, because women could check more than one racial category (as is now the standard in the U.S. Census); however, most women checked only one category.

**Table 3.4. Marital Status, Head of Household, and School-Aged Children by Rank/Branch (Percent)**

		<b>Total (n=1483)</b>	<b>Active Duty Enlisted (n=757)</b>	<b>Reserve Enlisted (n=452)</b>	<b>Reserve Officer (n=210)</b>
<b>Marital Status</b>	Married	46.3	47.4	36.9	58.6
	Divorced / Separated/ Widowed	21.6	20.6	23.2	22.9
	Never Married	32.1	32	39.8	18.6
		<b>Total (n=1431)</b>	<b>Active Duty Enlisted (n=737)</b>	<b>Reserve Enlisted (n=426)</b>	<b>Reserve Officer (n=204)</b>
<b>Head of Household</b>		16.6	16.3	23.0	8.8
<b>Living with Any Children Under 18</b>		39.8	39.3	40.4	42.4

A little more than half (54%) of the total sample population are not married and are widowed, separated, divorced, or never married. Reserve enlisted women were more than twice as likely as reserve officer women to have never been married and 2.5 times as likely as reserve officer women to be the head of household, as defined in Section 3.3.

About 17% of our sample was not currently married but had their school-aged children living with them. Reserve enlisted women were the most likely to be the single head of household with young children, with 23% of reserve enlisted women falling into this category.

Overall, 40% of the total population had children under the age of 18 years living at home with them, regardless of marital status. Across the rank/branch groups, the proportion of women having school-aged children living at home with them was very similar.

### **3.5 Important Factors**

A total of 1557 completed surveys were filled out by both Army active duty (n=848) and Army reserve (n=709) women. This total is close to the study's target sample size of 800 women for each group. Both the Army active duty and Army reserve samples for the study, The Nature and Outcomes for Women of Stressors Associated with Military Life (NOWSAML), were selected from a number of installations in the Continental U.S. (CONUS). Although this was a sample of convenience, women were selected from diverse locations in an effort to make the samples as representative of active and reserve populations in CONUS as possible, given the

financial constraints of the study. In order to examine the representativeness of the sample for the current study relative to the total population groups of interest, three demographic variables were examined (MOS, rank, and race/ethnicity). Demographic data from the NOWSAML study and data for CONUS women during the period of study<sup>1</sup> are presented in Table 3.5.

**Table 3.5. Demographic Comparison of the Sample to the Population of Army Women Stationed in the Continental United States**

	Active Duty Component				Reserve Component			
	Population <sup>1</sup>		Sample		Population <sup>1</sup>		Sample	
	#	%	#	%	#	%	#	%
<b>MOS Type</b>								
Administration	13,109	25.8	300	35.4	12,507	26.6	256	36.1
Medical	9,471	18.6	119	14.0	12,367	26.3	248	35.0
Supply	6,586	12.9	162	19.1	4,658	9.9	95	13.4
Other	21,729	42.7	254	30.0	17,420	37.1	100	14.1
Missing	<u>NA</u>	<u>NA</u>	<u>12</u>	<u>1.5</u>	<u>NA</u>	<u>NA</u>	<u>10</u>	<u>1.4</u>
<b>Total</b>	<b>50,895</b>	<b>100.0</b>	<b>848</b>	<b>100.0</b>	<b>46,952</b>	<b>100.0</b>	<b>709</b>	<b>100.0</b>
<b>Rank Group</b>								
E1 - E4	26,516	52.1	460	54.2	23,170	49.3	215	30.3
E5 - E6	12,125	23.8	244	28.8	9,891	21.1	166	23.4
E7 - E9/WO	4,728	9.3	78	9.2	4,564	9.7	106	15.0
O1 - O3	4,885	9.6	33	3.9	5,685	12.1	121	17.1
O4 - O10	2,641	5.2	32	3.8	3,642	7.8	91	12.8
Missing	<u>NA</u>	<u>NA</u>	<u>1</u>	<u>.1</u>	<u>NA</u>	<u>NA</u>	<u>10</u>	<u>1.4</u>
<b>Total</b>	<b>50,895</b>	<b>100.0</b>	<b>848</b>	<b>100.0</b>	<b>46,952</b>	<b>100.0</b>	<b>709</b>	<b>100.0</b>
<b>Race/Ethnicity</b>								
Hispanic	3,457	6.8	101	11.9	2,565	5.5	49	6.9
Non-Hisp. Black	21,791	42.8	368	43.4	18,569	39.5	368	51.9
Non-Hisp. White	22,133	43.5	303	35.7	23,131	49.8	223	31.5
Non-Hisp. Other	3,514	6.9	61	7.2	2,687	5.7	37	5.2
Missing	<u>NA</u>	<u>NA</u>	<u>15</u>	<u>1.8</u>	<u>NA</u>	<u>NA</u>	<u>32</u>	<u>4.5</u>
<b>Total</b>	<b>50,895</b>	<b>100.0</b>	<b>848</b>	<b>100.0</b>	<b>46,952</b>	<b>100.0</b>	<b>709</b>	<b>100.0</b>

<sup>1</sup>Counts of Army women stationed in the Continental U.S. as of June 1999. Source: Response to a request for information from the Defense Manpower Data Center.

### **3.5.1 Army Active Duty**

As Table 3.5 shows, the relative distribution of our responding Army active duty women corresponds fairly well with that of the CONUS total Army active duty population, with respect to rank. There are, however, some notable differences in the MOS and the race/ethnicity distributions. The study sample consists of almost twice as many Hispanic women as those found in all of the active duty installations across the Continental U.S. (CONUS 11.9% vs. 6.8%); there is a corresponding reduction in the proportion that are non-Hispanic. The study sample has a notably greater proportion of women in the administrative MOS than the total CONUS population (35% vs. 26%) and a substantially lower proportion of women in the "Other" MOS category than the full population of CONUS women (30% vs. 43%).

### **3.5.2 Reserve Women**

As Table 3.5 shows, the sample of reservist women does not correspond as well with the total CONUS population as the sample of active duty enlisted women. The study sample has a substantially lower proportion of those in the lowest ranks, compared to the total CONUS population, and a somewhat higher proportion of respondents in each of the higher ranks. In contrast, the NWSAML reserve sample consists of a slight majority of Non-Hispanic Black women (52%), compared to a substantial minority of Non-Hispanic Black women in the total CONUS population (40%). In contrast, the NWSAML reserve sample has substantially fewer Non-Hispanic White women than CONUS (32% vs. 50%). The reserve sample has a somewhat higher proportion of women in the administrative and medical MOSs (36% and 35%, respectively) than CONUS (27% and 25%, respectively); in comparison to the CONUS distribution, the reserve sample has a substantially smaller proportion of women in the "Other" MOS category (14% vs. 37%).

### **3.5.3 Summary**

The differences between the study sample and the CONUS population should be kept in mind when interpreting all data in this study. Weights were not used in our analysis because: (1) the sample was a convenience sample, not a random sample, and (2) we collected data at a limited number of installations in the U.S., which may differ in important ways from other installations. We believe that weighting the NWSAML data to CONUS distributions would be

inappropriate and would not necessarily compensate well for the differences between the two groups.

## 4.0 OCCUPATIONAL STRESSORS

### 4.1 Measurement

The section of the questionnaire entitled "Support and Stress in Your Job" covers the 51 items that were asked about the stressors and social support that are part of work life in the Army and the Army reserve. We discuss the findings for occupational stressors in this chapter and social support in the workplace in Section 12.

Nine of the sixteen items related to job stressors were originally used by the University of Michigan in their 1973 Quality of Employment Survey (Quinn et al., 1973). These same nine items were included as part of the 1997 National Employee Survey (NES) (Knudsen et al., 1997). In addition to the nine NES items, we included seven other items to address issues that we felt were important to assess the population of military women. These items included, but were not limited to, questions about shift work, problems from using equipment designed for men, and a noxious or dangerous work environment.

Because the combination of old and new questions covered the same subject matter, we performed a series of factor analyses. Two of these factor analyses used items for the specific domains found in earlier studies: job control/autonomy and job demands/pressure. The third factor analysis was for a domain we labeled "working conditions/environment." The results of the first two factor analyses were similar to the findings in previous work. The results of the principle component factor analyses produced the following factors:

- Job Control/Autonomy. This factor has high internal consistency reliability ( $\alpha = 0.79$ ). All of these items came from the NES.
- Job Demands/Pressure. This factor has good internal consistency reliability ( $\alpha = 0.74$ ). The seven items for this factor focused on shift work and length of workday. Four of the seven items came from the NES, and three additional items were developed specifically for this population.
- Working Conditions/Environment. Consisting of items about equipment or work environment, this factor shows good internal consistency reliability ( $\alpha = 0.75$ ). This factor was assessed in the NES.

### 4.2 Variable Creation

- Job Demands/Pressure of Military Job. Items used in this analysis included C3-C4 and C8-C12.
- Job Control/Autonomy in Military Job. Items used to create the "low autonomy" construct included C1-C2 and C5-C7.

- Working Conditions/Environment in Military Job. Items used to create the “working conditions” construct included C13-C16.

All items were coded as very true, somewhat true, not very true, or not at all true. Many of the items had to be reverse-coded so that, for all variables, the lower the value, the less stress and the higher the value, the more stress. Consistent with the literature, then, for the job demands/pressure domain, lower values reflected lower demands and higher values reflected more demands. For autonomy, lower values reflected low autonomy and higher values reflected more autonomy. For working conditions, lower values represented good working conditions and higher values represented more problematic working conditions.

The values of the individual items, after recoding, ranged from 0 to 3. Thus, the range for the seven-item job demands/pressure scale ranged from 0 to 21, the five-item job control/autonomy scale ranged from 0 to 15, and the four-item working conditions/environment scale ranged from 0 to 12. When presenting these data, we felt that it was important to have meaningful cutoff points for our categorized variables. So, we started out by setting the lowest category as having an average score of one or less on all items on the scale, the middle category as having an average of greater than one and less than or equal to two on all items, and the highest category as having a score of greater than two on all items. Because the autonomy variable contained more than half of the sample in the middle category, we broke the middle category into two components, low-medium and high-medium, for descriptive presentation.

The three-level low, medium, and high categorizations described in the previous text were used for modeling purposes.

### 4.3 Descriptive Findings

**Table 4.1. Job Pressure**

<b>Job Demands/ Pressure Score (Military Job)</b>	<b>Total (n=1506)</b>	<b>Active Duty Enlisted (n=764)</b>	<b>Reserve Enlisted (n=468)</b>	<b>Reserve Officer (n=209)</b>
Not Demanding	34.4	33.1	43.4	25.8
Somewhat Demanding	54.6	54.1	49.8	62.7
Very Demanding	11.0	12.8	6.8	11.5

Overall, more than half of the women reported that the job pressure of their military jobs was somewhat demanding. Reserve enlisted women reported military job pressure to be least demanding; only 6.8% reported military job pressure to be very demanding, compared to 11% of the overall sample. Worth noting is that more than 60% of reserve officer women reported military job pressure to be somewhat demanding, and an additional 11.5% reported job pressure to be very demanding. Thus, almost three-fourths of reserve officer women reported military job pressure as either somewhat or very demanding, compared to only two-thirds of the overall sample.

**Table 4.2. Level of Autonomy (Job Control)**

<b>Level of Autonomy (Military Job)</b>	<b>Total (n=1504)</b>	<b>Active Duty Enlisted (n=766)</b>	<b>Reserve Enlisted (n=466)</b>	<b>Reserve Officer (n=207)</b>
High Autonomy	27.2	23.9	25.8	35.3
High-Medium Autonomy	20.9	17.8	24.0	22.7
Low-Medium Autonomy	28.6	30.6	28.1	27.1
Low Autonomy	23.3	27.8	22.1	15.0

The overall population was almost equally divided between high and medium-high autonomy (48%) and low and low-medium autonomy (52%). Among the rank groups, a slight majority of active duty enlisted women (58%) reported low to low-medium autonomy in the workplace, and the same proportion of reserve officer women reported high-medium to high

autonomy in their military job. Reserve enlisted women reported higher autonomy in the workplace than active duty enlisted women.

**Table 4.3. Working Conditions**

<b>Working Conditions (Military Job)</b>	<b>Total (n=1474)</b>	<b>Active Duty Enlisted (n=759)</b>	<b>Reserve Enlisted (n=451)</b>	<b>Reserve Officer (n=201)</b>
Not Problematic	64.9	58.9	71.4	69.2
Somewhat Problematic	28.2	31.0	25.1	26.4
Very Problematic	6.9	10.1	3.6	4.5

A majority of the overall population, as well as a majority in each rank/branch group, reported their military working conditions as not problematic. The most notable difference among rank/branch groups was in the very problematic category, with 10% of active duty enlisted women reporting work conditions as very problematic, twice as high as reserve officer women and three times as high as reserve enlisted women. The 1998 Total Force Health Assessment Study (Vincus et al., 1998) found that, among female Army active duty personnel (officers and enlisted combined), 51% reported high job stress overall; 27% reported medium job stress; and 22% reported low job stress. For Army women reservists these proportions were 23% for high job stress, 36% for medium job stress, and 42% for low job stress. These rates are higher than for the current study and may mean that we did not include all of the important job stressor domains in our study.

## **5.0 DEPLOYMENT**

Deployment, whether in peacetime or war, presents disruption in the lives of military men and women, and their families. For women, deployment may produce more disruption than for men, because women are traditionally the primary caretakers of the home and children (Birgenheier, 1993; Kelley, 1994). There also has been an increase in the frequency of overseas deployments of the reserve component of the Army (Schumm et al., 1998). Operation Desert Storm and the Persian Gulf War required the deployment of more Army National Guard and reserve personnel than ever before in the history of the United States, especially of women, single parents, and minorities (West et al., 1993).

In a 1998 study (Schumm et al., 1998), reservists reported that an increase in deployments would result in difficulty keeping their civilian jobs, less likelihood of re-enlistment, and difficulty with their marriages and other family relationships. Other studies that have examined the results of deployment or service in war have well documented the negative psychological and psycho-social effects of overseas deployment (Devilbiss, 1985; King et al., 1996; Milroy, 1991; Perconte et al., 1993). A serious outcome associated with combat deployment exposure, of course, is post-traumatic stress disorder (King et al., 1995).

### **5.1 Measurement**

Deployment was measured for three different types of assignment: (1) any deployment outside the United States, (2) deployment in a war zone, and (3) deployment in a hostile area. The latter measurement included women who were deployed or stationed in either a hostile action zone or a war zone.

### **5.2 Variable Creation**

Deployment outside the United States was assessed by item B5: Have you ever been deployed or stationed overseas? Originally, we planned on including as deployed only those who had been deployed 1 month or longer, because very brief deployments might not produce substantial life disruption. However, so few women were deployed less than 1 month that we included them as well.

War zone deployment was assessed by item B10: Have you ever been either deployed or stationed in a war zone or an area of hostile action such as a peace-keeping action?

One of our goals was to determine which women had been stationed in locations in which there was a substantial threat of serious injury or death. We defined this as a “hostile area” and included for the “hostile” variable being stationed either in a war zone (B10) or “in any other location where you were in serious physical danger of being shot or otherwise attacked by individuals in the local population” (B12).

### 5.3 Descriptive Findings

**Table 5.1. Proportion of Women Deployed**

Deployed	Total (n=1493)	Active Duty Enlisted (n=759)	Reserve Enlisted (n=461)	Reserve Officer (n=208)
No	49.2	42.6	60.1	57.2
Yes	50.8	57.4	39.9	42.8

Almost half of the women reported NOT being deployed or stationed overseas. Comparing the rank/branch groups, a majority of reserve enlisted women reported not being deployed or stationed overseas, whereas a slight majority of active duty enlisted women reported being deployed or stationed overseas. Still, the proportion of reserve women in both ranks that reported being deployed was relatively high. Some of these deployments, however, may have been during previous active duty service since about half of our reservists had previously served on active duty.

**Table 5.2. Proportion of Women Deployed or Stationed in a War Zone Area**

War Zone	Total (n=1501)	Active Duty Enlisted (n=765)	Reserve Enlisted (n=464)	Reserve Officer (n=208)
No	79.0	72.4	86.9	87.5
Yes	21.0	27.6	13.2	12.5

Overall, 21% of the women reported being deployed or stationed in a war zone or an area of hostile action such as a peace-keeping action. Rank/branch differences were expected, with active duty enlisted women twice as likely as reserve enlisted and reserve officer women to report being deployed or stationed in a war zone or an area of hostile action such as a peace-keeping action.

**Table 5.3. Proportion of Women Deployed or Stationed in a Hostile Area**

<b>Hostile Area of War Zone or Physical Danger</b>	<b>Total (n=1494)</b>	<b>Active Duty Enlisted (n=762)</b>	<b>Reserve Enlisted (n=461)</b>	<b>Reserve Officer (n=208)</b>
No	73.4	66.8	82.0	82.2
Yes	26.6	33.2	18.0	17.8

Overall, 27% of the sample reported being deployed or stationed in a hostile area. Again, as would be expected, active duty enlisted women had the largest proportion of women deployed or stationed in a hostile area.

#### **5.4 Important Factors**

Our finding that a relatively high proportion of reservists had been deployed is consistent with the current literature, which includes reports of higher numbers of reservists being deployed. Previous active duty service among reservists is undoubtedly also a major factor.

## 6.0 SEXUAL HARASSMENT AND DISCRIMINATION

### 6.1 Prevalence of Sexual Harassment

#### 6.1.1 Measurement

In the section of the questionnaire entitled "Gender-Related Experiences," women were asked questions about sexual harassment in the Army and its consequences, as well as questions about unequal treatment of men and women in Army workplace settings. Some of these questions are part of the Sexual Experiences Questionnaire (SEQ) and were used in the 1995 Sexual Harassment Survey (SHS) (Bastin et al., 1996). The remainder were written specifically for this survey.

In the first part of this section, we discuss behaviors that are of a crude and/or sexual nature, which covers a broad spectrum of situations potentially considered harassment, from telling dirty or offensive jokes to sexual coercion. The 1988 SHS (Martindale, 1990) included 10 behaviors that might be classified as sexual harassment, compared to 25 behaviors in the 1995 SHS.

The SHS included 25 behaviors indicative of sexual harassment. These were factor analyzed and five constructs were found: (1) crude/offensive behavior (for example, unwanted sexual jokes, stories, whistling, and staring), (2) sexist behavior (for example, insulting, offensive, and condescending attitudes base on the gender of the person), (3) unwanted sexual attention (for example, unwanted touching, fondling, or asking for dates even though rebuffed), (4) sexual coercion (for example, classic *quid pro quo* instances of job benefits or losses conditioned on sexual cooperation), and (5) sexual assault (for example, unsuccessful attempts at having sex without the respondent's consent and against his or her will).

In our survey, we included 10 of the 25 items from the 1995 SHS plus another 6 non-DOD items found in the Army work environment section of our questionnaire on sexual discrimination (sexist behavior). We selected items to span four of the five factors from the SHS: crude/offensive behaviors (5 items), sexist behaviors (1 item), unwanted sexual attention (2 items), and sexual coercion (2 items). The fifth factor, sexual assault, was measured elsewhere in the questionnaire. An additional question, which asked about "other sex-related behavior not listed above," was included, but not reported here.

We did not believe that reducing the SHS survey items from 25 to 10 would substantially reduce reporting, because some of the items in the 1995 SHS were “overlapping” or highly correlated with other items. In fact, when the DoD added 15 items to its 1995 survey, on top of the 10 in its 1988 survey, the larger number of items did not substantially increase the rate of reported harassment, supporting our belief that decreasing the number of items would not substantially decrease our reporting rates.

The 10 items were answered on a five-point scale ranging from “never” to “very often”. Scale reliabilities for the two factors were:  $\alpha = 0.88$  for crude/offensive behaviors,  $\alpha = 0.65$  for unwanted sexual attention, and  $\alpha = 0.82$  for sexual coercion.

Maximum likelihood factor analysis of the entire set of sexual harassment items revealed a strong single factor, which indicates that treating the set of 10 items as indicators of a single factor, so that it would be statistically justifiable to sum the 10 items for sexual harassment. The resulting scale has good reliability ( $\alpha = 0.90$ ).

It is to be noted that the items we added to the “sexist behaviors” domain (that is, over and above the items from the SHS) are slightly different from the items in the SHS survey in that they include reports of supervisors’ sexist behavior toward women in general—both toward the respondents themselves and toward their female coworkers. We believe that the observation of ongoing discrimination against women by a supervisor can be seen as harassment of all women in the group. Furthermore, items asking about the overall treatment of women allowed a woman to report sexist behavior without having to view herself as a “whiner” or as someone who “can’t take it”.

The SHS surveys focused primarily on whether a woman had experienced any sexual harassment behaviors in the designated five domains, and we report on the prevalence of such behaviors in the four domains (excluding sexual assault) that we used. In Appendix K, we provide the frequency distributions on all of the sexual harassment items.

### **6.1.2 Variable Creation**

We created variables, as did SHS that included the reporting of any sexual harassment behavior on a particular item as “yes” for that domain. We also created several additional variables that provided a more in-depth examination of the extent of such behaviors.

### **6.1.2.1 Model Variables**

In general, one would expect the more serious the sexual harassment behavior, the fewer times it would have to be exhibited in order to have a serious negative impact on an individual. One sexual assault, for example, is likely to have more serious negative outcomes than a lot of whistles and dirty jokes. We developed classification schemes for the various dimensions of sexual harassment that attempted to reflect harassment of a level of seriousness that it might have a serious negative impact on the individual. We categorized the individual classes of harassment behavior by coding each dimension at the level at which we predicted might have a negative impact on many women. Thus, for three of the four domains assessed, we created a "yes, any" variable and a "significant level" of harassment variable.

### **6.1.2.2 Crude/Offensive Behaviors**

The 1995 SHS included eight items for this domain. We used five of these, including items related to sexual stories/jokes, whistling and hooting, unwanted sexual discussions, crude sexual remarks, and offensive remarks about the woman's body or sexual activities.

We included the five SHS items as our questionnaire items D11a-d and Df, and we used them to create two variables for crude and offensive behavior. One variable indicates whether the woman ever experienced any crude and offensive behaviors; the second is a scale that reflects the number and severity of such behaviors ("Crude Scale"). To create the latter variable, each of the five items was scored so that a response of "never" received a score of 0, a response of "once or twice" received a score of 1, and so on. Scores for the five items were added together for a total scale score ranging from 0-15. We then collapsed these scores into four categories: low (0-2), moderate (3-5), somewhat high (6-8), and high (9+). Because the highest score for any particular behavior was 3, a score of "somewhat high" (6-8) minimally encodes two behaviors that were exhibited "very often," three behaviors that were exhibited "often," etc.

For our models, we used as quasi-continuous the crude and offensive behavior scale.

### **6.1.2.3 Sexist Behaviors**

The 1995 SHS included four items in this domain. We included only one of these as our item D11e: mistreated, slighted, or ignored you because of your sex. We included five other sexual discrimination items (C25, C27-C29, and D23); however, supervisors making negative remarks about women's performance and abilities, supervisors giving more opportunities to men than women, supervisors giving more rewards to men than women, supervisors giving more

criticism to women than to men, and being given unusually unpleasant, difficult, or demeaning tasks because you are a woman. A "yes" was coded for sexist behaviors if the respondent reported anything besides "no" or "never" to any such behaviors.

For our models, sexist behavior was a dichotomous variable coded "yes" if: respondents reported that their supervisors gave unequal treatment to women for any of items C27-29; respondents reported "somewhat" or "very true" to item C25 (supervisors' making negative comments on women's performance or abilities); or respondents reported "sometimes" or more often to item D11 (about being treated differently than men, such as being slighted or mistreated).

#### **6.1.2.4 Unwanted Sexual Attention**

The 1995 SHS included four items in this domain; we used two of them as our items D11g and D11i: repeatedly asking for dates even though rebuffed and unwanted attempts to stroke, fondle, or kiss you.

For our models, this was a dichotomous variable that was coded "yes" if the question about repeated unwanted requests for dates was coded "sometimes" or more often, or if the question about unwanted touching was coded "once," "twice," or more often.

#### **6.1.2.5 Sexual Coercion**

The 1995 SHS included six items on sexual coercion. We used two of these as our items D11h and D11i: felt the person was trying to bribe you (for example, offered you faster promotions) to engage in sexual behavior, or made you feel threatened that the person would get even with you if you did not engage in sexual behavior. Because we considered this to be "significant" harassment, if even experienced once, we only created one variable for this domain. That is, we used the same variable in the model as we provide data on below. This variable was a dichotomous variable, and it was coded "yes" if a respondent answered "once," "twice," or "more often" to either someone trying to bribe her to engage in sexual behavior or someone threatening her in order to get her to engage in sexual behaviors.

#### **6.1.2.6 Sexual Assault**

The 1995 SHS included two items on sexual assault: attempted to have sex with you without your consent or against your will and had sex without your consent and against your will. The SHS only asked about assaults and attempted assaults in relation to perpetrators who were military personnel and civilian employees of "your workplace". For example, this would exclude being raped off base by an unknown civilian. Our questionnaire had a lengthy section on traumatic experiences, which posed four very specific questions about rape, including questions about vaginal, anal, and oral rape; questions about insertion of objects into the vagina; and one question about attempted rape.

We did not create a sexual assault subscale for sexual harassment; the complexity of the skip pattern in our trauma section led us to believe that it could create substantial error to add the complexity of asking whether the perpetrator of any assault was a military or civilian coworker or someone else entirely—like a stranger or a boyfriend not associated with the military. We felt it more important to gather data on all sexual assaults rather than to focus on only one type. We do provide data on overall sexual assaults in Section 8 of the report.

#### **6.1.2.7 Significant Harassment**

This variable was meant to incorporate the total extent of "significant" harassment across the four different domains of sexual harassment. The significant harassment construct was meant to reflect a more stringent criterion for harassment than the "yes/no" responses to questions about any harassing behavior. The standard for significant harassment for a particular domain is encoded in the model variable for each domain. For example, significant harassment for unwanted sexual attention was coded "yes" if repeated unwanted requests for dates was coded "sometimes" or "more often" or if unwanted touching was coded "once," "twice," or more often. Significant crude or offensive behavior was positive if the Crude Scale score was 6 or higher. The significant harassment variable was scored 0-4, reflecting the number of domains in which the respondent had significant harassment.

For our models, we examined the impact of significant harassment on outcomes in two different ways: (1) the four model variables, which each reflected sexual harassment at what we defined as a "significant level," and (2) the significant harassment variable, which reflected substantial harassment across the four domains.

### 6.1.2.8 Variables Matched to the Military's Previous Studies of Sexual Harassment

Given that our items are not identical to the SHS items for each domain, we provide part of a table from the 1995 SHS report that compares responses to items for the 1988 and 1995 surveys. These include: sexual teasing, jokes, and remarks; whistles, calls, and hoots; pressure for sexual favors; and pressure for dates. We have expanded this table to include proportions from our survey, for comparison purposes. We have also included comparison data from the 1997 report of the Secretary of the Army's Senior Review Panel on sexual harassment (SRPSHS) (U.S. Army, 1997), which used the same assessment tool (SEQ) in a survey across all branches of the Total Force.

### 6.1.3 Descriptive Findings

**Table 6. 1. Proportion Reporting Any Crude or Offensive Behavior**

<b>Experienced Crude or Offensive Behavior</b>	<b>Total (n=1502)</b>	<b>Active Duty Enlisted (n=763)</b>	<b>Reserve Enlisted (n=465)</b>	<b>Reserve Officer (n=211)</b>
No	26.2	19.0	30.5	38.4
Yes	73.8	81.0	69.5	61.6

An overwhelming three-quarters of the total sample reported having experienced crude/offensive behavior. Across the rank/branch groups, 81% of active duty enlisted women reported having experienced crude/offensive behavior, compared to 70% of reserve enlisted women and 62% of reserve officer women. Active duty enlisted women may be more likely to have experienced crude/offensive behavior, in part, because they spend more time in military activities than reserve women.

**Table 6.2. Scale Scores for "Crude Scale," Reflecting Both the Number and Frequency of crude and Offensive Behaviors.**

<b>Crude Scale Scores</b>	<b>Total (n=1503)</b>	<b>Active Duty Enlisted (n=763)</b>	<b>Reserve Enlisted (n=466)</b>	<b>Reserve Officer (n=211)</b>
Low	44.5	34.7	48.9	64.0
Moderate	22.0	23.7	22.3	15.6
Somewhat high	15.0	16.9	13.7	11.9
High	18.5	24.6	15.0	8.5

As noted earlier, we created this scale to determine the seriousness and pervasiveness of the crude/offensive behaviors experienced by the women. We found that a little over one-third of the total sample had high or somewhat high scores on the Crude Scale, which reflects the number and frequency of crude/offensive behaviors. As expected, given the results in Table 6.1, the active duty enlisted group had the highest proportion of women scoring somewhat high or high on the Crude Scale--41%, compared to 29% for reserve enlisted women and 20% for reserve officer women. The reserve officer group had the highest proportion of women with a low score on the Crude Scale. This suggests that reserve officer women suffer from fewer and more infrequent crude/offensive behaviors both because of their more limited exposure to the military environment as well as to their higher rank.

**Table 6.3. Proportion Reporting Sexist Behavior**

<b>Sexist Behavior</b>	<b>Total (n=1353)</b>	<b>Active Duty Enlisted (n=714)</b>	<b>Reserve Enlisted (n=394)</b>	<b>Reserve Officer (n=187)</b>
No	22.9	18.9	25.6	30.5
Yes	77.1	81.1	74.4	69.5

More than three-fourths of the total sample reported experiencing sexist behavior. Across the rank/branch groups, harassment was again found most often in the active duty enlisted group, with 81% reporting having experienced sexist behavior, followed by 74% for reserve enlisted women and 69% for reserve officer women. This may be due, in part, to active duty enlisted women having more participation in military duties.

**Table 6.4. Proportion Reporting Unwanted Sexual Attention**

<b>Experienced Unwanted Sexual Attention</b>	<b>Total (n=1502)</b>	<b>Active Duty Enlisted (n=764)</b>	<b>Reserve Enlisted (n=466)</b>	<b>Reserve Officer (n=211)</b>
No	56.7	47.5	60.5	75.4
Yes	43.3	52.5	39.5	24.6

Slightly more than half of the total sample reported not having received any unwanted sexual attention, such as being pressured for dates. Across the rank/branch groups, the differences were substantial. The reserve officer group had the highest proportion of women reporting not having received unwanted sexual advances--75%, compared to 60% of reserve enlisted women and 47% of active duty enlisted women. Again, active duty enlisted women appear to be experiencing the highest rates (43%) of this negative stressor – unwanted sexual attention.

**Table 6.5. Proportion Reporting Sexual Coercion**

<b>Experienced Sexual Coercion</b>	<b>Total (n=1505)</b>	<b>Active Duty Enlisted (n=764)</b>	<b>Reserve Enlisted (n=467)</b>	<b>Reserve Officer (n=211)</b>
No	81.6	76.6	83.5	91.9
Yes	18.4	23.4	16.5	8.1

Of the total sample, 82% reported that they had not experienced sexual coercion. However, differences across the rank/branch groups were again substantial. Active duty enlisted women were almost three times as likely as reserve officer women to have experienced sexual coercion, with almost one-fourth of active duty enlisted women reporting that someone tried to coerce them into sexual activity by bribes or threats. Undoubtedly, the vulnerability as a result of their age, rank, and relatively short time in the Army are all factors in these rates.

**Table 6.6. Distribution on the Number of Domains with Significant Sexual Harassment**

Domains with Significant Sexual Harassment	Total (n=1523)	Active Duty Enlisted (n=772)	Reserve Enlisted (n=474)	Reserve Officer (n=212)
0	42.9	34.5	47.7	57.6
1	28.7	29.2	29.8	25.9
2	16.2	19.6	13.1	11.8
3-4	12.2	16.8	9.5	4.7

Four domains of sexual harassment were assessed: crude and offensive behavior, sexist behavior, unwanted sexual attention, and sexual coercion. This table represents in how many of those four domains women experienced significant sexual harassment, that is, not just an occasional and minor behavior. More than 28% of the women reported significant/serious levels of harassment in more than one domain, and almost one-fifth of active duty enlisted women reported significant/serious levels of harassment in three or four domains.

**Table 6.7a. Proportion Reporting Sexual Harassment by Type of Behavior, from the 1988 SHS, 1995 SHS, and 1999 NOWSAML**

Behavior Reported	1988 SHS	1995 SHS	1999 NOWSAML
Pressure for sexual favors	15	11	18
Pressure for dates	26	22	40
Sexual teasing, jokes, remarks	52	44	62
Whistles, calls	38	23	54

Legend: SHS = Sexual Harassment Survey, NOWSAML = The Nature and Outcomes for Women of Stressors Associated with Military Life Study.

References: 1998 SHS (Martindale, 1990), 1995 SHS (Bastin et al., 1997).

Women in our study reported a higher proportion of unwanted sexual attention in each of the four types of behavior listed in Table 6.7a. (This table, like the "total" column in all of our tables, includes four rank/branch groups; that is, it includes active duty officers as well as the three rank/branch groups broken out separately in our other tables.) Interestingly, the DoD SHS findings indicate decreases in unwanted sexual attention for each of the four behavior types between 1988 and 1995, but our findings show increases. The items used to create the variables

in our study are the same as the items used in the other two studies, so the findings are not an artifact of measurement.

The proportions are not just higher; for three of the four domains, they are substantially higher. We are not sure what to make of this. Table 6.7b below shows that the overall rates of reporting sexual harassment and sexual discrimination were no greater in the current study than in previous studies. We included fewer items than the 1995 SHS survey to assess most sexual harassment domains (except sexist behavior in which we had more). Because the reservists in our study tended to report fewer sexual harassment behaviors than active duty women, including a reservist component would not be the explanation. Compared to the total force, our sample probably included a higher proportion of soldiers at locations subject to rapid deployment and the culture at such locations might be less likely to discourage harassment and discriminatory behaviors. Other alternative explanations include: (1) there are other sample differences between the three surveys; (2) women are more likely to report such behaviors in response to a survey by an outside research firm than a survey administered by the military; and (3) things got worse between 1995 and 1999.

According to the 1995 SHS, 82% of active duty women (includes enlisted personnel and officers) reported receiving "any type of unwanted sex/gender related experiences". The behaviors consisted primarily of those in the domains listed in Table 6.7b.

**Table 6.7b. 1995 SHS, 1997 SRPSHS, and 1999 NOWSAML**

<b>Experience</b>	<b>1995 SHS (% women among Army Active Duty)</b>	<b>1997 SRPSH (Women from the Entire Active Duty Military Force)</b>	<b>1999 NOWSAML</b>
Crude and/or offensive behavior	74	78	74
Sexist behavior	67	72	77
Unwanted sexual attention	47	47	43
Sexual coercion	18	15	18

Legend: SHS = Sexual Harassment Survey, NOWSAML = The Nature and Outcomes for Women of Stressors Associated with Military Life Study.

References: 1998 SHS (Martindale, 1990), 1995 SHS (Bastin et al., 1997).

These rates are amazingly similar across different studies, different samples, and

different years. Only sexist behavior in the 1995 SHS appears to be significantly different across the studies, probably as a result of our more in-depth assessment of this domain. These findings suggest that these problems are deeply embedded in the military culture and, therefore, are very difficult to change. They are also likely to be related to selection factors for those who enlist in the military.

## **6.2 Responses to Sexual Harassment**

In this section, we provide data on how women who were exposed to any kind of sexual harassment behaviors viewed these experiences, that is, whether the behaviors were perceived to be sexual harassment, where the behaviors took place, how upsetting the behaviors were to the women, what the women did in response to the behaviors, and the women's satisfaction with the Army's response to any complaints. The tables cover only a small numbers of respondents, because: (1) the tables only include subjects who responded "yes" to being exposed to sexual harassment, and (2) some subjects who reported such harassment did not respond to the followup questions.

### **6.2.1 Measurement and Variable Creation**

None of the variables in this section are scales. They are all data from single items, as described in the following text:

- Table 6.9, Item D12: Do you consider any of the behaviors that you marked as happening to you to have been sexual harassment?
- Table 6.10, Item D17: Taken altogether, how upsetting was this incident, or these incidents, to you?
- Table 6.11, Item D13: Did these situations occur at work (the place you perform your military duties) or some other place?
- Table 6.12, Item D15: Did these situations occur during duty hours or while you were off duty?
- Table 6.13, Item D18: Did you report this incident, or any of these incidents?
- Table 6.14, Item D19: Did you report the situation/incident that had the greatest effect on you? ("Did not report incident" categories, 2 and 4, are combined.)
- Table 6.15, Item D20: Taken altogether, how satisfied were you with the actions taken as a result of your report(s) or complaint(s) ("Somewhat satisfied" or "not very satisfied" could include satisfaction with one complaint but dissatisfaction with another complaint.)

**Table 6.8. Item D12: Do You Consider Behaviors That You Reported Sexual Harassment?**

Behavior Considered Sexual Harassment	Total (n=297)	Active Duty Enlisted (n=110)	Reserve Enlisted (n=111)	Reserve Officer (n=56)
None	0.3	0.0	0.9	0.0
Some	0.3	0.0	0.0	1.8
All	0.3	0.0	0.0	1.8
Does not apply	99.0	100.0	99.1	96.4

Women who reported experiencing any sexual harassment (that is, answered “yes” to any sexual harassment items D11a-j) should have answered the question posed by Item D12. Although most women reported some sexual harassment experiences, only 297 of our sample of 1500 women answered this question. Furthermore, all but three of those women reported “does not apply”.

We do not know whether the women were unsure of how to classify the behaviors or whether they were uncomfortable reporting the behaviors as sexual harassment. Because only three women really answered the question, the data are not interpretable.

**Table 6.9. Item D17: Taken Altogether, How Upsetting Was/Were the Incident(s)?**

How Upsetting Was Harassment	Total (n=1096)	Active Duty Enlisted (n=606)	Reserve Enlisted (n=315)	Reserve Officer (n=138)
Not upsetting	20.6	17.0	25.7	22.5
Not very upsetting	33.9	33.2	32.1	41.3
Somewhat upsetting	32.9	35.8	30.8	29.0
Very upsetting	12.5	14.0	11.4	7.3

Most women were not reluctant to answer most of the other followup questions about their sexual harassment experiences. Among the women who experienced any sexual harassment, 45% reported that these experiences were somewhat upsetting or very upsetting. Across the rank/branch groups, differences were notable. The active duty enlisted group had the highest proportion of women reporting sexual harassment behaviors as somewhat upsetting or very upsetting--50%, compared to 42% for reserve enlisted women and 36% for reserve officer women. Given the data presented in Tables 6.1, 6.2, and 6.3, in which the active duty enlisted

group reported higher proportions of negative stressors, the data in Table 6.9 suggests that active duty enlisted women actually suffer sexual harassment incidents that are more upsetting to them than their reservist counterparts, suggesting perhaps that these behaviors are more pervasive and/or more severe in the active duty component, although the age of many active duty enlisted women is likely a factor.

**Table 6.10. Item D13: Did These Situations Occur at Work or Some Other Place?**

<b>Place Where Sexual Harassment Occurred</b>	<b>Total (n=1118)</b>	<b>Active Duty Enlisted (n=616)</b>	<b>Reserve Enlisted (n=321)</b>	<b>Reserve Officer (n=143)</b>
All at work	25.6	27.0	23.1	25.2
Most at work	27.4	30.8	23.1	19.6
Some at work	31.0	31.0	34.3	23.8
None at work	16.1	11.2	19.6	31.5

More than half of those who experienced sexual harassment reported that the sexual harassment situations occurred either all at work or most at work (work is defined here as the place where military duties are performed), and one-third reported that only some of the sexual harassment situations occur at work. Across the rank/branch groups, the active duty enlisted group had a somewhat higher proportion of sexual harassment situations occurring either all at work or most at work (58%). The proportions of reserve enlisted women and reserve officer reporting comparable sexual harassment situations occurring most at work or all at work were 46% and 45%, respectively. One significant difference across the rank/branch groups was that reserve officer women were three times as likely as active duty enlisted women and twice as likely as the overall sample to report that their sexual harassment situations did not occur at their Army workplace. It may be that other incidents of sexual harassment occurred at their civilian jobs.

**Table 6.11. Item D15: Did These Situations Occur While on Duty or Off Duty?**

<b>Sexual Harassment Occurred While on Duty</b>	<b>Total (n=1089)</b>	<b>Active Duty Enlisted (n=608)</b>	<b>Reserve Enlisted (n=309)</b>	<b>Reserve Officer (n=135)</b>
All	25.3	26.3	22.3	25.2
Most	29.1	34.1	21.4	23.7
Some	29.9	30.4	32.0	23.7
None	15.6	9.2	24.3	27.4

More than half of those who experienced sexual harassment reported that the sexual harassment situations occurred either all while on duty or most while on duty. Again, active duty enlisted women were more likely than their reservists counterparts to report that most or all of the sexual harassment situations occurred while on duty. An overwhelming 90% of active duty enlisted women reported that some, most, or all of the sexual harassment situations occurred while on duty. One significant difference across the rank/branch groups was that reserve officer women were three times as likely as active duty enlisted women to report that their sexual harassment situations did not occur while on duty.

**Table 6.12. Item D18: Did You Report Any of the Incidents?**

<b>Reported Sexual Harassment</b>	<b>Total (n=1102)</b>	<b>Active Duty Enlisted (n=609)</b>	<b>Reserve Enlisted (n=316)</b>	<b>Reserve Officer (n=139)</b>
Yes	21.1	22.8	19.0	22.3
No	78.9	77.2	81.0	77.7

An overwhelming majority of women who experienced sexual harassment experiences responded that they did not report any of the sexual harassment situations. Almost 80% of those who experienced sexual harassment indicated that they did not report the sexual harassment. The responses were comparable across the rank/branch groups.

**Table 6.13. Item D19: Did You Report the Situation of Greatest Effect?**

<b>Reported Incident That Had Greatest Negative Effect*</b>	<b>Total (n=1395)</b>	<b>Active Duty Enlisted (n=718)</b>	<b>Reserve Enlisted (n=426)</b>	<b>Reserve Officer (n=193)</b>
Yes	10.8	14.4	7.5	7.3
No	5.4	4.5	6.3	7.8
Did Not Report Any Incident	62.7	65.9	60.3	57.0
Never Received Unwanted Sexual Attention	21.1	15.3	25.8	28.0

\*The "did not report incident" categories 2 and 4 are combined.

Only 14% of those reporting sexual harassment indicated that they reported the sexual harassment situation/incident that had the greatest effect on them. Across the rank/branch groups, active duty enlisted women were more likely than both of the reservist components to report the sexual harassment situation/incident that had the greatest effect on them.

**Table 6.14. Item D20: How Satisfied Were You With the Actions Taken?**

<b>Satisfied with Army Response*</b>	<b>Total (n=1385)</b>	<b>Active Duty Enlisted (n=713)</b>	<b>Reserve Enlisted (n=422)</b>	<b>Reserve Officer (n=192)</b>
Very satisfied	2.0	2.2	1.4	1.6
Somewhat satisfied	2.3	3.2	1.9	0.5
Not very satisfied	2.5	3.1	2.1	1.6
Very dissatisfied	3.5	5.2	1.2	3.1
Only 1 incident & not reported	0.4	0.4	0.2	1.0
Did not report worst harassment incident	5.4	4.5	6.4	7.8
Did not report any incident	2.7	65.9	60.7	56.3
Never Received Unwanted Sexual Attention	21.2	15.4	26.1	28.1

\* The responses "somewhat satisfied" or "not very satisfied" could include satisfaction with one complaint but dissatisfaction with another complaint.

The proportions do not add up to 100%, because many of the women skipped this question either appropriately (did not report any incident) or inappropriately. Again, there is a problem with lack of data. Only 233 women said that they reported any incident, and only about 140 responded when asked how satisfied they were with the Army's response. About 60% of the 140 indicated that they were not very satisfied or that they were very dissatisfied with the Army's response.

### **6.3 Gender Discrimination**

The first two parts of this section focused on crude and sexually related remarks and behaviors. This section focuses on the negative experiences and consequences for women of gender discrimination. The behaviors that we examined include things like negative remarks made about the performance of women, men being given preferential treatment, and women not being rewarded comparably for the same or better performance as men.

#### **6.3.1 Measurement**

A variety of items were used to assess gender discrimination. A few of these items were from the SHS, discussed earlier in the section. Others were items that we created for this study.

#### **6.3.2 Variable Creation**

##### ***6.3.2.1 Negative Remarks About Women's Performance***

Negative remarks about women's performance was assessed using item C25: Supervisors make negative remarks about women's performance and abilities. Applicable responses ranged from very true to not at all true. The variable is reverse coded so that a higher value means more discriminatory behavior, and the range is 1-4.

##### ***6.3.2.2 Favoritism and/or Poor Treatment***

Items C27-C29 address favoritism and/or poor treatment. They were created in response to our focus groups, in which participants commented that women were sometimes not treated equally in terms of rewards, opportunities, or criticism. The items asked whether supervisors give more opportunities, rewards, or criticism to men or women.

The data from these items are shown for each item, and then they are combined into a scale. To create the scale, each of the three items was rated 0 or 1. For each item, a score of 1 indicates better treatment for men (or worse treatment for women), and a score of 0 indicates

treatment is not better for men (women are favored or men and women are treated equally). Thus, the scale for the three items ranges from 0-3.

#### **6.3.2.3 Gender Harassment**

Gender harassment was assessed with the individual item D23. It was created in response to comments from our focus groups, in which participants perceived that women were, at times, given the least desirable tasks to carry out because their supervisor didn't like having women in their unit or because their supervisors didn't believe that women could, or should, carry out the duties that men did. Item D23 asked how often in the past year the respondent believed she was given unusually unpleasant, difficult, or demeaning duties just because she was a woman. Answer categories ranged from never (in the past year), rarely, sometimes, often, or very often. The values ranged from 1-4.

#### **6.3.2.4 Effects of Discrimination**

This variable reflects the way that discrimination prevents one from succeeding professionally. It follows item D23, about gender harassment, and uses item D24: Do you feel that you have ever been discriminated against in the Army or Army reserve in any way because you were a woman (for example, not getting a promotion you thought you were entitled to because you were a woman)? If the answer was "yes," the respondent was also asked: How seriously has the impact of such discrimination been on you – personally and professionally? Answer categories included: not at all serious, somewhat serious, very serious, and extremely serious. "Effects of Discrimination" was coded as 1 if the response indicated no discrimination, 2 if the effect of the discrimination was not at all serious, 3 if it was somewhat serious, and 4 if it was very serious or extremely serious.

#### **6.3.2.5 Gender Discrimination**

This was meant to be an inclusive list of gender discriminatory behaviors, and it encompassed all of the items described in previous text. Thus, the Gender Discrimination I variable was the sum of the following items: C25 (range 1-4), C27-C29 (each coded 1 or 2), D23 (range 1-4), and effects of discrimination (range 1-4). Six was subtracted from the total, so that the range was 0-9. For presentation, the responses were labeled none, a little (1), somewhat (2-3), a good deal (4-5), and a lot (6+).

Because data were missing on 208 cases for one or more of the three items (C27, C28, or C29), it would cause problems for logistic regression modeling. So, we created a second gender

discrimination variable, Gender Discrimination II, which only included C25, D23, discrimination. It was coded using the same procedures as for Gender Discrimination I.

**Table 6.15. Distribution for Supervisors Making Negative Comments About Women's Performance**

Supervisors Made Negative Remarks about Women's Performance	Total (n=1418)	Active Duty Enlisted (n=727)	Reserve Enlisted (n=432)	Reserve Officer (n=196)
Very true	8.7	12.9	4.9	3.1
Somewhat true	16.6	20.4	13.2	9.7
Not very true	24.4	24.1	24.5	26.0
Not at all true	50.4	42.6	57.4	61.2

One-quarter of the total sample reported as somewhat true or very true that supervisors make negative remarks about women's performance. One-third of active duty enlisted women reported as somewhat true or very true that supervisors make negative remarks about women's performance. Active duty enlisted women were more than twice as likely as reserve officer women to report as somewhat true or very true that supervisors make negative remarks about women's performance, 33% vs. 13% respectively.

**Table 6.16. Proportion Reporting Gender Favoritism or Poor Treatment**

Favoritism	Table (n=1184)	Active Duty Enlisted (n=652)	Reserve Enlisted (n=328)	Reserve Officer (n=152)
No favoritism toward men	67.3	63.2	68.9	77.6
Yes, favoritism toward men	32.7	36.8	31.1	22.4

One-third of the total population reported the existence of gender favoritism toward men or poor treatment of women versus men. Gender favoritism or poor treatment was most prevalent among active duty enlisted women and least prevalent among reserve officer women. Proportions on the three items used to create this scale are found below.

**Table 6.17a. Supervisor Gives More Opportunities to Men or Women (Item C27)**

<b>Supervisor Gives More Opportunities to Men or Women</b>	<b>Total (n=1258)</b>	<b>Active Duty Enlisted (n=666)</b>	<b>Reserve Enlisted (n=366)</b>	<b>Reserve Officer (n=168)</b>
Men	21.1	23.7	20.8	13.1
Women	2.6	3.5	1.6	2.4
Same	76.3	72.8	77.6	84.5

One-fifth of the total sample reported that their supervisors give more opportunities to men. Across the rank/branch groups, findings were similar with the exception of the reserve officer group, which had the lowest proportion of women reporting that their supervisors give more opportunities to men.

**Table 16.17b. Supervisor Gives More Rewards to Men or Women (Item C28)**

<b>Supervisor Gives More Rewards to Men or Women</b>	<b>Total (n=1186)</b>	<b>Active Duty Enlisted (n=647)</b>	<b>Reserve Enlisted (n=336)</b>	<b>Reserve Officer (n=152)</b>
Men	20.0	21.6	19.9	15.1
Women	1.4	2.0	0.9	0.0
Same	78.7	76.4	79.2	84.9

Again, one-fifth of the total sample reported that their supervisors give more rewards to men. Across the rank branch groups, findings were similar with the exception of the reserve officer group, which had the lowest proportion of women reporting that their supervisors give more rewards to men.

**Table 6.17c. Supervisor Gives More Criticism to Men or Women (Item C29)**

<b>Supervisor Gives More Criticism to Men or Women</b>	<b>Total (n=1239)</b>	<b>Active Duty Enlisted (n=676)</b>	<b>Reserve Enlisted (n=347)</b>	<b>Reserve Officer (n=160)</b>
Men	3.9	5.2	2.9	1.3
Women	19.9	24.9	17.0	9.4
Same	76.3	70.0	80.1	89.4

Among the overall sample, 20% reported that supervisors give more criticism to women. Across the rank/branch groups, there were substantial differences, with 25% of active duty enlisted women reporting that supervisors give more criticism to women. This proportion is more than double that for reserve officer women. The latter group reported the highest proportion for same or equal criticism given to men and women, 89%.

**Table 6.18. Distribution on Gender Harassment (Item D23): In Past Year, How Often Were You Given an Unpleasant Task Just Because You Were a Woman?**

<b>Given Unpleasant Task Just Because You Were a Woman</b>	<b>Total (n=1420)</b>	<b>Active Duty Enlisted (n=722)</b>	<b>Reserve Enlisted (n=432)</b>	<b>Reserve Officer (n=203)</b>
Never in past year	68.1	59.1	75.5	79.3
Rarely in past year	16.1	20.2	12.5	10.8
Sometimes in past year	9.9	12.2	8.6	6.4
Often in past year	3.2	4.6	2.1	0.5
Very often in past year	2.8	3.9	1.4	3.0

Overall, 16% of the total sample reported that in the past year they were sometimes, often, or very often given an unpleasant task just because they were a woman. Distributions across the rank/branch groups varied, with active duty enlisted women more than twice as likely (21%) as reserve officer women (10%) and almost twice as likely as reserve enlisted women (12%) to report that in the past year they were sometimes, often, or very often given an unpleasant task just because they were a woman.

**Table 6.19. Distribution on Effects of Discrimination (Items D24-D25)**

<b>Impact of Gender Discrimination</b>	<b>Total (n=1434)</b>	<b>Active Duty Enlisted (n=730)</b>	<b>Reserve Enlisted (n=438)</b>	<b>Reserve Officer (n=204)</b>
No discrimination	74.8	74.0	78.3	72.6
No serious impact	3.8	2.9	3.7	4.9
Somewhat serious impact	11.9	13.2	8.9	13.7
Very serious or extremely serious impact	9.6	10.0	9.1	8.8

This question asked about the personal and professional impact of gender discrimination other than that captured in Table 6.17, that is, the effect of things like not receiving a promotion or not being given opportunities because you were a woman. One-fifth of the sample reported that such discrimination had a somewhat serious, very serious, or extremely serious impact on them. The distributions were similar across the rank/branch groups.

**Table 6.20. Distribution on Gender Discrimination Scale**

<b>Gender Discrimination</b>	<b>Total (n=1315)</b>	<b>Active Duty Enlisted (n=700)</b>	<b>Reserve Enlisted (n=382)</b>	<b>Reserve Officer (n=174)</b>
None	31.5	25.7	36.7	42.0
A little	19.2	17.1	22.3	19.5
Somewhat	22.5	24.1	20.2	20.7
A good deal	10.7	12.9	8.4	7.5
A lot.	16.2	20.1	12.6	10.3

Table 6.21 reflects the distribution on our six-item scale of sexual discrimination. (See variable creation section. ) One-half of the total sample, and comparable proportions across the rank/branch groups, reported experiencing some gender discrimination. Overall, 27% of the total population reported experiencing a good deal or a lot of gender discrimination. The distributions varied across the rank/branch groups, with active duty enlisted women reporting the highest proportion of women experiencing some gender discrimination--33% compared to 21% for reserve enlisted women and 18% for reserve officer women.

**Table 6.21. Distribution on Alternate Gender Discrimination Scale**

<b>gendis2_cat</b>	<b>Total (n=1442)</b>	<b>Active Duty Enlisted (n=731)</b>	<b>Reserve Enlisted (n=443)</b>	<b>Reserve Officer (n=205)</b>
None	33.0	28.6	36.8	40.0
A little	22.8	20.0	27.3	22.9
Somewhat	13.2	13.0	12.6	13.2
A good deal	10.9	12.0	9.5	10.7
A lot	20.1	26.4	13.8	13.2

Because we were concerned about the level of missing data on our gender discrimination scale (Table 6.20), we also created a three-item scale to keep missing data to a minimum in our modeling. This alternate scale included only supervisors making negative remarks about women's performance; being given unpleasant or more difficult tasks because of being a woman; and the impact of other types of discrimination, such as not getting promotions. This scale had similar findings, with 31% reporting a good deal or a lot of gender discrimination.

## 7.0 RACIAL DISCRIMINATION

### 7.1 Measurement

A brief series of questions about racial/ethnic discrimination was asked. Respondents who were White/Caucasian and not Hispanic were directed to skip these questions, although not all did so. *The data reported here represent answers of respondents who reported as Black, other, non-White, or Hispanic.*

### 7.2 Variable Creation

The items used in this analysis included D26-D30. The concept of racial discrimination was represented in this analysis by “whether and to what degree being a minority member has hindered or hurt” the career of the women surveyed. Other concepts related to racial discrimination that were measured included: “whether and to what degree being a minority member has helped your career and opportunities in the Army” and “how ability to advance compares with civilian life.”

### 7.3 Descriptive Findings

**Table 7.1. Racial Discrimination**

Degree to Which Career Hurt or Hindered by Being a Minority	Total (n=894)	Active Duty Enlisted (n=466)	Reserve Enlisted (n=309)	Reserve Officer (n=96)
Not hurt at all/hurt a little bit	72.3	75.1	72.2	62.5
Hurt somewhat	16.2	15.7	14.2	24.0
Hurt a lot	11.5	9.2	13.6	13.5

Overall among minority women, almost 28% reported that being a minority member has hindered or hurt their career somewhat or a lot. This proportion is about the same across enlisted groups, ranging from 25% of active duty enlisted women to 28% of reserve enlisted women. However, 38% of reserve officer women reported such problems. Therefore, reserve officer women perceive that their minority status has hurt or hindered their career more than the other two rank/branch groups.

**Table 7.2. Degree to Which Being a Minority Has Helped Career**

Degree to Which Career Helped by Being a Minority	Total (n=901)	Active Duty Enlisted (n=471)	Reserve Enlisted (n=313)	Reserve Officer (n=96)
Not helped at all	82.7	80.3	86.9	83.3
Helped a little bit	7.7	8.5	4.8	9.4
Helped somewhat	7.8	9.1	6.7	6.3
Helped a lot	1.9	2.1	1.6	1.0

Overall, about 10% of the women reported that being a minority has helped their career somewhat or a lot. Active duty enlisted women were more likely than either reserve group to report that being a minority member has helped their career.

**Table 7.3. Ability for Minority Member to Advance**

Ability for Minority Member to Advance	Total (n=906)	Active Duty Enlisted (n=475)	Reserve Enlisted (n=314)	Reserve Officer (n=94)
Better in Armed Services	21.1	21.9	18.8	23.4
About the same	52.4	49.3	56.4	54.3
Better in civilian life	26.5	28.8	24.8	22.3

Half or more of minority women, overall and across rank/branch groups, reported that the ability to advance as a minority was about the same in civilian vs. military life. For those respondents not reporting, it was the same, enlisted women were somewhat more likely to report that the ability to advance was better in civilian life than in the Armed Services. Officers were equally likely to report better ability to advance in the Armed Services as well as better ability to advance in civilian life.

## 8.0 TRAUMATIC EVENTS

Traumatic events are the most infrequent, and severe stressors. They include such events as being sexually or physically assaulted, being the victim of a serious accident or natural disaster, and serving in combat. The literature has shown that experiencing these events may result in a variety of negative outcomes, such as post-traumatic stress disorder (PTSD), depression, and substance abuse and dependence. Conducting a high quality assessment of all the different types of traumatic events was beyond the scope of our study because of the time involved and the complex skip patterns. We therefore focused on items related to physical and sexual assault--some of the most severe stressors for women. A valid assessment of PTSD is also time consuming. Therefore, we did not attempt to assess PTSD in our study.

### 8.1 Measurement

Traumatic events were addressed by items D31-D60 of the questionnaire. Trauma stressor questions asked about three types of events: sexual assaults, other assaults, and other traumas.

Because we focused the time that we had on getting a good assessment of being violently victimized, we got minimal information on other potential traumas. For this reason, we do not present data on any potentially traumatic event, other than violent victimization, with two exceptions: (1) serving in a combat zone or police action and (2) seeing someone seriously injured, mutilated, or violently killed. These two experiences are, by their very nature, so extreme that it was not necessary to ask followup questions to know that they had the potential to result in traumatic sequelae. Other potentially traumatic experiences that we asked about, such as being in a serious car accident or a natural disaster, might or might not have met the criteria for exposure to extreme events, and it would have required asking additional questions to determine this. Thus, the prevalence of these other events is quite high and not interpretable.

The variables that we present include sexual assault, physical assault (also referred to as non-sexual assault), and any (that is, either type of) assault. The variable for "any assault" is a combination of the first two, and it was coded yes if any physical or sexual assault variable was coded yes. We first present these variables for any occurrence of the event in the respondent's life. We also asked whether any such event had occurred in the past 12 months, and we present tables on sexual assaults that occurred in the past 12 months and "any assaults" that occurred in

the past 12 months. Finally, we present tables on lifetime experiences of serving in a combat zone and witnessing serious violence.

### 8.1.1 Variable Creation

The variable for (lifetime) sexual assault was coded yes if a respondent reported<sup>1</sup> forced intercourse, forced oral or anal sex, attempted rape, or other forced sexual contact; these were addressed by items D31-D34, D38, and D42 of the questionnaire. The variable for (lifetime) physical (non-sexual) assault was coded yes if a respondent reported yes to non-sexual assault with a weapon, non-sexual assault without a weapon, intentional serious physical harm, or domestic violence; these were addressed by items D46-D48 and D52 of the questionnaire. We combined the information on sexual and physical assaults to create the "any assault" variable, which was coded yes if either type of assault item was coded yes.

We also created versions of the "sexual assault" and "any assault" variables for assaults occurring in the past 12 months. The variable for a sexual assault in the past 12 months was coded yes if the "sexual assault" variable was coded yes and any of the following items, which asked whether a sexual assault occurred in the past 12 months, was also coded yes: D35, D39, or D43. The variable for any assault in the past 12 months was coded yes if the "any (lifetime) assault" variable was coded yes and an assault was determined to have occurred in the past 12 months because: (1) the variable for any sexual assault in the past 12 months was coded yes or (2) item D49 or D53 was coded yes.

As for other traumas, we present the yes/no answers to the lifetime experience of serving in a combat zone, addressed by item D54: Have you ever been in a combat zone or a police action in which you were afraid you might be killed or seriously injured by the enemy? We also present the yes/no answers to the lifetime experience of witnessing serious violence, addressed by item D60: Did you ever see someone seriously injured, mutilated, or violently killed?

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<sup>1</sup>In this chapter, to "report" an assault or other traumatic event means to report these experiences on the questionnaire, that is, the respondent circled "yes" in response to items inquiring about such experiences. To "report" does not mean the incident was reported to the authorities or anyone else.

## 8.2 Descriptive Findings

**Table 8.1. Lifetime Sexual Assault in Lifetime (Percent)**

<b>Sexual Assault in Lifetime</b>	<b>Total (n=1461)</b>	<b>Active Duty Enlisted (n=743)</b>	<b>Reserve Enlisted (n=447)</b>	<b>Reserve Officer (n=208)</b>
No	65.8	63.5	66.9	71.2
Yes	34.2	36.5	33.1	28.9

Overall, 34% of the total sample reported having experienced a sexual assault. Proportions were comparable across the rank/branch groups, ranging from 36% for active duty enlisted women to 29% for reserve officer women. It should be noted that women have a tendency to under-report assaults because: (1) they do not want to think about what was a very upsetting experience; (2) the trauma made them forget the event; (3) they are ashamed to admit that an assault occurred; (4) they are concerned that someone will find out about the assault, particularly if the assault was by someone known to them, such as a fellow soldier. Thus, the reports for lifetime assaults appears to be somewhat low, lower than for both military and civilian samples. For example, in a study of Navy and Marine women done by telephone, 52% of the females reported having been raped at some time (Hourani and Yuan, 1999).

The 1998 Total Force Health Assessment Study (TFHAS) (Vincus et al., 1998) found that 24% of active duty Army women (officers and enlisted combined) reported being "sexually abused" before entering the Army and 10% reported such abuse after entering the Army. Rates for Army reserve women were 24% and 13%.

**Table 8.2. Non-Sexual Assault in Lifetime**

<b>Non-Sexual Assault in Lifetime</b>	<b>Total (n=1453)</b>	<b>Active Duty Enlisted (n=740)</b>	<b>Reserve Enlisted (n=448)</b>	<b>Reserve Officer (n=202)</b>
No	64.8	61.5	64.5	74.3
Yes	35.2	38.5	35.5	25.7

Overall, 35% of the total sample reported having experienced a non-sexual assault. Across the rank/branch groups, there was a notable difference in the proportion of women reporting having experienced a non-sexual assault, from 38% for active duty enlisted women to 26% for reserve officer women. Rates of "physical abuse" reported in the TFHAS were 29%

before entering the Army and 30% after entering the Army; rates for reservists were 33% and 35%.

**Table 8.3. Physical or Sexual Assault in Lifetime**

Physical or Sexual Assault in Lifetime	Total (n=1450)	Active Duty Enlisted (n=740)	Reserve Enlisted (n=444)	Reserve Officer (n=204)
No	49.0	45.4	48.9	60.3
Yes	51.0	54.6	51.1	39.7

More than half of the total population reported a physical or sexual assault in their lifetime. Across the rank/branch groups, reserve officer women reported the lowest proportion of any lifetime physical or sexual assault. These rates, too, are likely to be under-estimates.

**Table 8.4. Sexual Assault in Past 12 Months**

Sexual Assault in Past 12 Months	Total (n=1462)	Active Duty Enlisted (n=744)	Reserve Enlisted (n=448)	Reserve Officer (n=206)
No	93.5	89.9	95.8	99.5
Yes	6.5	10.1	4.2	0.5

Overall, 6.5% of the women in the sample reported having experienced a sexual assault in the past 12 months. Across the rank/branch groups, there were notable differences. Ten percent (10%) of active duty enlisted women reported a sexual assault in the past 12 months, compared to 4.2% of reserve enlisted women and only 0.5% of reserve officer women. Women may be particularly reluctant to report recent assaults, because they may still be having psychological problems from the event. Also, they are more likely to be stationed in the same location as the perpetrator and may be concerned that he may learn of the report. So, we believe that the rate of 6.5% is probably a significant under-estimate of the experience.

**Table 8.5. Sexual or Physical Assault in the Past 12 Months**

<b>Sexual or Physical Assault in Past 12 Months</b>	<b>Total (n=1425)</b>	<b>Active Duty Enlisted (n=727)</b>	<b>Reserve Enlisted (n=434)</b>	<b>Reserve Officer (n=201)</b>
No	88.1	82.9	91.2	96.5
Yes	11.9	17.1	8.8	3.5

Twelve percent (12%) of the total sample reported having experienced a sexual or physical assault in the past 12 months. Again, the differences across the rank/branch groups were notable, with the active duty enlisted category having the highest proportion women reporting a sexual or physical assault in the past 12 months. Active duty enlisted (17%) women were twice as likely as reserves enlisted (9%) women and almost five times as likely as reserve officer (3%) women to report a sexual or physical assault in the past 12 months.

**Table 8.6. Service in Combat Zone or Police Action in Lifetime**

<b>Served in Combat Zone/Police Action in Lifetime</b>	<b>Total (n=1489)</b>	<b>Active Duty Enlisted (n=757)</b>	<b>Reserve Enlisted (n=459)</b>	<b>Reserve Officer (n=209)</b>
No	86.0	85.2	88.5	87.1
Yes	14.0	14.8	11.6	12.9

Overall, 14% of the total sample reported having served in a combat zone or police action. Responses were similar across the rank/branch groups, with the reserve enlisted category having the smallest proportion of women reporting having served in a combat zone or police action. Interestingly, in Section 5, a somewhat higher proportion of the sample (21%) reported that they had been “deployed or stationed in a war zone or hostile action such as a peace keeping action” (Table 5.2). The differences in the proportion answering yes did not differ substantially across the two questions for reserve women (enlisted and officer), but the proportion of active duty enlisted women answering yes almost doubled (15% vs. 28%) from Table 5.2 to Table 8.6. We suspect that the difference is in the wording of the questions. The earlier question asked about “being deployed or stationed” in a war zone, which may be interpreted more broadly than “served in a war zone.” For example, administrative personnel in a “war zone” but serving in a

location distant from any major fighting might say they were stationed in a war zone but not report “serving” in a war zone.

**Table 8.7. Saw Violent Injury or Death in Lifetime**

<b>Saw Violent Injury/Death in Lifetime</b>	<b>Total (n=1488)</b>	<b>Active Duty Enlisted (n=756)</b>	<b>Reserve Enlisted (n=459)</b>	<b>Reserve Officer (n=209)</b>
No	80.0	79.9	80.4	79.0
Yes	20.0	20.1	19.6	21.1

Overall, 20% of the total sample, as well as 20% across the rank/branch groups, reported having seen a violent injury or death. Having seen violent injury or death has been associated with the onset of PTSD.

## **9.0 STRESSFUL LIFE EVENTS**

Researchers in psychiatric epidemiology have identified three different kinds of events that affect physical and mental health: (1) traumatic life events (Section 8), (2) the somewhat more frequently occurring stressful life events (Section 9), and (3) the most commonly occurring daily hassles (Section 10). These types of events differ both in terms of frequency/ordinariness and in terms of severity/intensity. Daily hassles tend to be frequent and mild-to-moderate in their individual severity/intensity. The literature on "stressful life events" focuses on events that happen infrequently in a person's lifetime, but events that happen to a majority of people at some time. Individually, these events are usually thought to be higher in severity/intensity than daily hassles; however, daily hassles may be as likely or more likely to have a negative impact on outcomes if they are numerous enough or frequent enough. Traumatic life events are highly severe/intense in their impact and relatively rare: Many people may never experience them.

The stressful life events section of the survey questionnaire includes questions on experiences that happen relatively infrequently to most people and that tend to produce serious changes in their everyday lives. Generally, these life events are of major significance to the individual. They may include marriage, serious financial problems, changing jobs, moving, or having a child, and they are related to physical and physiological outcomes (Russell and Davey, 1993). Research has found that the onset of physical and psychological illness is often preceded by an increase in the frequency or onset of stressful life events (Holmes and Rahe, 1967; Lazarus and Folkman, 1984).

### **9.1 Measurement**

The measure of stressful life events in our study was adapted from a scale that was developed by Tennant and Andrews (1976). The original scale contained 67 items, too many for use in our 1-hour, multifocus study. We took 17 of the original items that we thought were most relevant for our sample and created an additional 6 items. Some of the 6 new items were developed by consolidating conceptually similar items from the original scale. (For example, "serious legal problems" was consolidated from separate items involving "important problems with the police", "had a jail sentence or were in prison", and "involved in a civil law suit.") Other items were developed to represent potentially stressful events in the life of military women (for example, "deployed/stationed overseas").

Thus, our stressful life events scale included 23 items. Respondents were asked whether the listed events had happened within the past 12 months.

## 9.2 Variable Creation

Our stressful life events scale was addressed by items D1a-w. The original scale (Tennant and Andrews, 1976) gave weights to each type of stressful life event. These weights were developed empirically based on the relationship of the individual items to negative outcomes: the worse the outcome, the higher the weight. We used the original weights for the items from the original scale. We matched our new items to items from the original scale that were most similar in terms of type of event and intensity. We then used the weight for the matching event, or the average across several similar events. The weighting scheme shown in Table 9.1 was used in the development of our stressful life events scale.

**Table 9.1. Weighting Scheme got the Stressful Life Events Scale**

	Total points assigned
a You got engaged.	2
b You got married.	5
c You moved into a different home or apartment.	8
d You and your lover moved in together. (Average of items 16 and 34 from original scale. *)	6.5
e You had a baby.	5
f You adopted a child.	4
g Someone else moved into your household.	8
h A loved one died.	30
i A member of your household or family became seriously ill.	16
j You got a divorce or had an important relationship end. (Average of items 24, 31, and 32 from original scale.)	25
k You separated for a few weeks or longer from your spouse, lover, or partner. (Average of items 19 and 20 from original scale.)	12
l Someone (else) moved out of your household. (Average of items 28 and 36 from original scale.)	12

	<b>Total points assigned</b>
<sup>m</sup> Your financial situation got substantially worse. (Average of items 59 and 60 from original scale.)	22
<sup>n</sup> You had a major job change.	8
<sup>o</sup> You moved to a different installation.	8
<sup>p</sup> Your husband, lover, or partner had an affair with someone else.	35
<sup>q</sup> A child of yours got into serious trouble. (Comparable to item 64 from original scale.)	21
<sup>r</sup> You were deployed/stationed overseas. (Comparable to item 56 from original scale.)	19
<sup>s</sup> You had a serious problem with a close friend or neighbor.	10
<sup>t</sup> You had serious legal problems. (Average of items 64 and 66 from original scale.)	23
<sup>u</sup> Something that was very valuable to you was stolen.	9
<sup>v</sup> You were promoted.	2
<sup>w</sup> You were stationed away from your spouse or your children under age 18 for a few weeks or longer. (Average of items 20 and 36 from original scale. )	12.5

\* Original scale is from study by Tennant and Andrews (1976).

These items were scored, summed, and collapsed to derive the total score for each respondent across the stressful life events scale. The range was between 2 and 238. We divided the sample into three roughly equal groups on these scores, for presentation of the descriptive data.

We also examined the most stressful life events. Question D2 asked the respondent which was the most stressful of the stressful life events that she had experienced in the past 12 months. Only one event could be coded. The responses for the most frequently reported items are presented in Table 9.2.

For our models, we used a three-level stressful life events scale value that divided the sample overall into three equally sized groups.

### 9.3 Descriptive Findings

**Table 9.2. Three Most Stressful Life Events by Rank/Branch (percent)**

Three Most Stressful Life Events	Total (n=1383)	Active Duty Enlisted (n=699)	Reserve Enlisted (n=425)	Reserve Officer (n=196)
None (no stressful life events reported)	18.2	13.3	25.4	20.4
Your financial situation got substantially worse.	12.4	11.4	15.5	11.2
You were stationed away from your spouse or your children under 18 for a few weeks or longer.	8.8	13.9	2.4	4.6
You got a divorce or had an important relationship end.	7.9	8.9	6.4	7.1

Because there were 23 items in our scale there were no 1 or 2 items that were reported as “most stressful” by a majority of the sample.

The three most stressful life events reported overall were:

- Your financial situation got substantially worse.
- You were stationed away from your spouse or your children under 18 for a few weeks or longer.
- You got a divorce or had an important relationship end.

Active duty enlisted women were most likely to report being stationed away as the most stressful life event, and reserve enlisted women were most likely to report a deterioration in financial situation as the most stressful event. The “being stationed away” item, however, was reported much more often by active duty women (28%) than reserve enlisted women (12%) or reserve officer women (15%), which may help explain the difference. We have no reason to believe that this event would be less stressful for reserve women; it just occurred much less frequently. Excluding being stationed away, deterioration in financial situation was the most frequently reported stressful life event.

A randomly selected sample of San Francisco Bay area residents (Holahan et al. , 1990), found that the most commonly reported negative (stressful) life events were: trouble with a supervisor at work, unemployed for a month or more, trouble with friends or neighbors, death of a close friend, legal problems, a substantial decrease in income, and death of a family member. Five of these items were covered, in some form or another, on the scale tailored to our study: death of a family member, death of a close friend, legal problems, substantial decrease in income, and trouble with friends or neighbors. However, they were not endorsed as the most stressful life event by many respondents.

The Life Experiences Survey was used to measure stressful life events among a sample of 239 women referred from a Gastroenterology Clinic at the University of North Carolina (UNC). The most common stressful negative events among this sample (in order of frequency) included: change in work situation/job, serious illness or injury of a close friend, major change in closeness of family members, death of a close family member, major change in financial status, change in residence, gaining a new family member, trouble with in-laws, major change in number of arguments with spouse, trouble with employer, and breaking up with boyfriend (Lesserman et al., 1998). The items from this study that were present in our questionnaire included: change in work situation/job, serious illness or injury of a close friend, death of a close family member, major change in financial status, change in residence, gaining a new family member, and breaking up with boyfriend (in our questionnaire the item was "a divorce or an important relationship ended"). Thus, two of the most common events from the UNC study—a major change in financial status and the end of an important relationship—are similar to the most common events found in our study.

Compared to these two studies, then, our sample shared the "worsening of financial situation" as one of the most serious stressors. It appears that, across populations, financial crisis is a major stressful life event. In addition, compared with the study conducted by Lesserman et al. (1998), our sample reported that having "a divorce or an important relationship end" is one of the most common stressful life events.

**Table 9.3. Total Scores on Stressful Life Events Scale**

<b>Stressful Life Events Total Score</b>	<b>Total (n=1497)</b>	<b>Active Duty Enlisted (n=762)</b>	<b>Reserve Enlisted (n=466)</b>	<b>Reserve Officer (n=206)</b>
2-38(1)	36.7	28.9	41.4	52.4
38.5-75(2)	31.3	32.4	30.5	30.6
75.5+(3)	32.0	38.7	28.1	17.0

As noted in prior text, in an effort to keep our questionnaire relatively brief and focus on the problems and experiences most salient to our population, we shortened and modified a stressful life events scale used in previous studies. Because we did not use all of the same items as previous studies, we do not have a population sample to serve as norms for "high" and "low." Thus, we cannot say what proportion of our women are scoring "high" or "low" on stressful life events compared to a community sample. Comparing the scores in Table 9.3 with the weights shown previously, it does appear that many women had multiple stressful life events in the past year. The scores do allow us to compare the distributions of stressful life events across the rank/branch groups and to examine whether stressful life event scores are predictive of negative outcomes in our multivariate models.

The active duty enlisted group reported the highest scores on stressful life events, with 39% of active duty enlisted women having the highest scores on this scale. The reserve officer group had the lowest stressful life event scores (17% in the high scoring category), and the reserve enlisted group was in between the active duty enlisted and reserve enlisted groups (28% having the highest scores). In the 1998 Total Force Health Assessment Study (TFHAS) (Vincus et al., 1998) among Army active duty personnel (officers and enlisted combines) 10% reported many stressful life events in the past year and 72% reported fewer or none. Among Army women reservists, these rates were 18% (high) and 45% (few or none). Because the TFHAS did not differentially weigh the events, it is difficult to compare rates. Being deployed overseas and getting divorced in one year may only be two events but the combination is likely to produce high levels of stress.

## **10.0 DAILY HASSLES**

While stressful life events such as a divorce or loss of a job are severe stressors that occur relatively infrequently, daily hassles such as problems with child care, too much to do around the house, and not enough energy are relatively minor stressors and may happen relatively often in our everyday lives. These are day-to-day events that are considered to be irritating, frustrating, or distressing (Kanner et al., 1981). Research has found daily hassles to be significantly correlated with psychological symptoms and a better predictor of such symptoms than stressful life event scores (Kanner et al., 1981). Other research (Russell and Davey, 1993) has also found that measures of both trait anxiety and worry are significantly associated with measures of daily hassles, but were not associated with measures of negative life events or world events.

### **10.1 Measurement**

In question D5a-qq, respondents were asked to check those items "which recently have been causing significant problems for you or causing you substantial worry."

We first determined which were the most frequently experienced daily hassles and compared them with the most frequently reported hassles in a sample of 100 community respondents who participated in a study of stress, coping, and emotions (Kanner et al., 1981). We also examined which of the items were reported to be the "three most troublesome hassles" in the women's lives. Next, we summed the total number of daily hassles checked by each woman. Finally, we assessed altogether how much the various hassles troubled or bothered the women. The scoring for this was: 0, none (no daily hassles reported); 1, a little; 2, a moderate amount; 3, a lot; and 4, extremely.

### **10.2 Variable Creation**

The original scale contained 118 items--too many for our one-hour, multifocus survey. So, we took 31 of the original items that we thought were most relevant for our sample; created 3 additional items by combining original items (for example, combining "not enough money for clothing" and "not enough money for housing" into "not enough money"); modified 3 other items (for example, replacing "not getting enough sleep" with "sleep problems"); and created 6 new items specifically targeting our sample (for example, "physical demands of training or military job"). Thus, our daily hassles scale included 43 items.

The original Kanner scale assessed not only whether these events were experienced but also how often they occurred and how severe they were. To shorten administration, we only asked: "Please mark an 'X' in the yes or no box for those items which recently have been causing significant problems for you or causing you substantial worry." This was followed by questions about which of the hassles was most troublesome and, altogether, how much the various hassles "trouble or bother you."

### 10.3 Descriptive Findings

**Table 10.1. Ten Most Reported Daily Hassles in the Total Sample**

Hassle	Percent (n=1523)
Not getting enough rest or sleep	63
Debts	58
Not enough money	57
Trouble relaxing	55
Not enough time for family	51
Not enough energy	50
Concerns about your own health	48
Your weight	48
Too many responsibilities	48
Other job responsibilities	47

**Table 10.2. Most Frequently Checked Daily Hassles in a Community Sample  
(Kanner et al., 1981)**

Hassle	Percent Checked (n=100)
Concerns about weight	63
Health of a family member	58
Rising prices of common goods	57
Home maintenance	55
Too many things to do	51
Misplacing or losing things	50
Yard work or outside home maintenance	48
Property, investment, or taxes	48
Crime	48
Physical appearance	47

**Table 10.3. Mean Number of Daily Hassles Reported**

Mean Number of Daily Hassles Reported	Total (n=1478)	Active Duty Enlisted (n=752)	Reserve Enlisted (n=455)	Reserve Officer (n=207)
	12.6	13.1	12.3	11.9

**Table 10.4. How Various Hassles Troubled or Bothered Women**

How much do your hassles bother you?	Total (n=1478)	Active Duty Enlisted (n=752)	Reserve Enlisted (n=455)	Reserve Officer (n=207)
No hassles	7.44	5.85	10.11	6.28
A little	16.31	15.29	15.38	22.22
A moderate amount	37.69	34.57	40.00	43.00
A lot	27.54	29.92	25.71	22.22
An extreme amount	11.03	14.36	8.79	6.28

## 10.4 Major Differences

The three rank/branch groups were very similar on the number of daily hassles they reported, 12-13.

The sample reported a mean of 13 or more hassles out of the 43 hassle items asked about. In a study of an Alameda County (CA) Human Population Laboratory sample of 100 respondents (Kanner et al., 1981), female respondents reported a mean of 19 hassles from a total of 117 possible hassle items on the scale. Our sample reported a mean frequency of 29% of the total hassle items on the reduced daily hassles scale used, compared to only a mean frequency of 15% of the total hassle items on the extended scale for the Alameda County Human Population Laboratory sample.

Among the six daily hassles reported as the most troublesome by the different rank/branch groups, five were the same, although not always in the same order. (Data not tabled) When asked which of the daily hassles reported were the most troublesome, five of the six items reported as the most troublesome were the same for all rank/branch groups:

- money difficulties;
- problems with debts;
- problems maintaining weight standards;
- problems with a husband, partner, or lover; and
- not enough family time.

The other daily hassle among the top six reported as most troublesome varied by group. For active duty enlisted women, it was hassles from a boss or supervisor; for reserve enlisted women, it was not getting enough sleep; and for reserve officer women, it was too many responsibilities. The five items perceived by all three groups as most troublesome were also frequently reported items. The frequency of reporting these daily hassles was: money problems, 57%; debt problems, 58%; weight problems, 48%; relationship problems, 42%; and lack of family time, 51%.

## **11.0 PHYSICAL HEALTH**

### **11.1 Measurement**

This section provides data on the assessment of several health-related issues. Please note also that data on "sick days" can be found in Section 15. Physical health problems and their effects can have a negative impact on morale, efficiency, mental health, and retention. So, although the Army as a whole is an unusually health population, we examined several health-related issues in our study.

### **11.2 Variable Creation**

#### **11.2.1 General Health Status**

This variable was taken directly from item G1 of the questionnaire: In general, would you say your health is excellent, very good, good, fair, or poor?

#### **11.2.2 Sleep Problems**

High levels of stress and related mental health problems may result in sleep problems. Poor sleep is also associated with a variety of health problems, and sleep problems can result in poor job performance. We used the six-item sleep scale from the Medical Outcome Study (MOS) to assess sleep problems. According to the developers, the six-item sleep scale is "virtually indistinguishable" from the nine-item version, and the two scales had a shared or common variance of 94% (Stewart and Ware, 1992).

Items from the sleep scale were covered by item G2, a-f, and included things like getting enough sleep, trouble falling asleep, awaking in the night, and trouble staying awake during the day. Two of the six items (the first and last) were reverse coded so that, for all items, a higher score represented better health/functioning. Values for each item ranged from 1 to 6, and the items were totaled for simple sleep scores ranging from 6 to 36. In the MOS, these scores were transformed linearly, so the range was from 0 to 100. We transformed our data similarly; thus a score of 100 represented perfect health/functioning and a score of 0 represented the worst possible health/functioning. A description of the versions of this variable used in our models may be found in Section 11.3.

### **11.2.3 Blood Pressure**

Items G3 and G4 asked, respectively: Do you have high blood pressure? Within the past year? These items were combined for the purpose of analysis to produce a blood pressure variable coded as: no; yes, but not in the past year; and yes, in the past year.

### **11.2.4 Weight**

One point that came up repeatedly in our focus groups was the difficulty of meeting the Army's weight standard. Many women felt that the standard was too extreme, and some African-American women believed that it did not take into account racial differences in body structure. We asked about the difficulty and distress of trying to maintain the proper weight in item G5: How much are you troubled or bothered by having to stay within the Army/Army Reserve weight standard for your height? The applicable responses were: very troubled, somewhat troubled, and not troubled at all. This item was reverse coded as: 0, not at all troubled; 1, somewhat troubled; and 2, very troubled.

### **11.2.5 Problems Associated with Pregnancy**

Women in our focus groups talked a good deal about the difficulty of being pregnant in the Army. Some felt that many men saw a woman's getting pregnant as a way to get out of her duties or being deployed and that male supervisors often underestimated how difficult being pregnant or newly delivered made it for a woman to carry out her normal duties. Some women felt that their health and their babies' welfare were placed at risk by some of the things they were required to do, and some enlisted women felt that supervisors sometimes gave them more strenuous duties because they were perturbed with the women for getting pregnant. Therefore, we asked a series of questions about the problems that pregnancy caused for women in the Army/Army Reserve.

In item D10, a-e, we asked about the extent of any problems that women had encountered in carrying out strenuous duties while pregnant, such as experiencing negative attitudes of coworkers, returning to strenuous duties too soon, finding affordable childcare, and getting time off to care for a sick child. Because we did not plan on using this construct in our modeling, we did not create a scale. Rather, data on the individual items are provided for review.

### 11.3 Model Variations

Two of the health variables reported in this section were used in our models. Because the difficulty of maintaining the weight standard often came up in our focus groups, we included the Weight variable in our multivariate analysis. As for all predictor variables, it was coded so that “not troubled at all” had the lowest value (0) and “very troubled” had the highest value (2).

The other variable that we included in our models was a quasi-continuous form Sleep Problems. To be consistent with other predictor variables, for modeling purposes only, we reverse coded this scale, so 0 represented no sleep problems and 100 represented the most extreme sleep problems.

### 11.4 Descriptive Findings

#### 11.4.1 Overall Health

Table 11.1. Physical Health Outcomes (Percent)

Reported Health Status (General Health)	Total (n=1499)	Active Duty Enlisted (n=761)	Reserve Enlisted (n=464)	Reserve Officer (n=210)
Excellent	15.8	13.4	13.1	23.8
Very good	34.2	32.2	34.9	40.5
Good	37	38.1	40.1	29.5
Fair	11.4	14.2	10.3	5.7
Poor	1.6	2.1	1.5	.5

As expected from a sample of women in the military service, an overwhelming majority of women in the total sample reported good-to-excellent health (87%). Across the rank/branch groups, active duty enlisted women (16%) and reserve enlisted women (12%) were twice as likely as reserve officer women to report fair-to-poor health (6%). This distribution is similar to that for Army women using the same questionnaire item in the Total Force Health Assessment Study (TFHAS) (Vincus et al., 1999).

#### 11.4.2 Sleep Problems

When examining rates of health problems or other problems, it is useful to provide comparison data on community populations. However, the MOS scales have been used

primarily in samples of people with health and mental health problems. We were unable to find studies that provided MOS sleep scale scores for community populations of young-to-middle-aged subjects. We were therefore forced to adopt a more complex, two-stage approach to help us understand the significance of sleep scores for the samples of Army women.

First, we looked at the findings of studies using community populations and other measures of sleep problems. This examination provided us with some information on what proportion of individuals in community populations would be expected to have sleep problems. Second, we looked at the sleep scale scores for samples in which sleep problems tended to be high, such as samples of the elderly and samples of individuals with serious health problems. The latter data told us what the high sleep scale scores were, which allowed us to determine what proportion of our sample fell into the high sleep problems group. The former data on community populations told us how the proportion in our sample of women with sleep problems compared with the proportion of sleep problems found in community populations.

In studies using different (that is, not MOS) sleep problem scales and community populations, about one-third of the samples were found to have some level of sleep problems, that is, sleep difficulties sufficient to cause some problems for the individual (Kales et al., 1987). These populations included both healthy, young and middle-aged individuals, as well as some individuals who would be likely to have elevated sleep problems, like the elderly and individuals with serious health problems. Based on these studies, we expected that, in a sample like ours--of primarily young-to-middle-aged, relatively healthy individuals--less than one-third would have significant sleep problems.

Sleep problems are related to both physical and mental health problems, and sleep problems tend to be higher in physically ill and mentally ill samples. For the MOS sleep scale and the *chronic disease patient sample* used in the original MOS work, the mean on the six-item index, which was coded so that a higher score reflected more sleep problems, was 28.3--the inverse of our scoring and the inverse of the scoring typically used for the MOS scales (Stewart and Ware, 1992). Thus, for the mean score for the usual MOS coding--of a higher score reflecting better health/functioning--the mean for the chronic disease sample would be 71.7, the inverse of 28.3.

The elderly and the physically ill tend to have a higher incidence of sleep problems. In a Swedish study, the *elderly (aged 65-84) diabetic sample* had a mean sleep score on the nine-item

sleep scale of 57.7 while the *elderly community control sample* had a mean sleep score of 67.4 (Wandell and Tovi, 2000). In a sample of HIV patients, *asymptomatic HIV patients had a mean sleep score of 78.3; symptomatic patients, 63.1; and AIDS patients, 65.8* (Revicki and Murray, 1995). This then, we believe, provides us with some understanding of what constitutes elevated levels of sleep problems using the MOS sleep scale.

**Table 11.2. Sleep Problems Score**

MOS Sleep Score	Total (n=1492)	Active Duty Enlisted (n=758)	Reserve Enlisted (n=460)	Reserve Officer (n=210)
0-25 (most sleep problems)	4.09	5.80	3.70	0.00
26-50	25.13	30.87	22.39	14.29
51-75	44.57	42.61	45.65	47.14
76-100 (least sleep problems)	26.21	20.71	28.26	38.57

The findings suggest a high level of sleep problems among Army women, particularly among enlisted women. Because the elderly and seriously ill samples have mean sleep scores in the approximate range of 58-78, one would expect sleep scores to be 75 or better for a healthy, young-to-middle-aged sample. Yet, three-fourths of our sample had scores below 76, and the mean sleep score was 61. Also, as described earlier, in a normal community population (which would include both some elderly and some chronically ill individuals), you would expect only one-third of the sample to score below the two-thirds mark; yet, 56% (data not tabled) of our sample had scores of less than 66.66. Not surprisingly, the results were worse for enlisted women, particularly active duty enlisted women. Almost 80% of active duty enlisted women had scores lower than 75, and one third had scores below 50.

In the 1998 Total Force Health Assessment Study (TFHAS) (Vincus et al., 1999), the modal number of hours Army active duty and reserve women reported sleeping, on the average, was between 5 and 6 hours, with half the sample of Army women reporting sleeping that many hours. These findings support the finding from the current study.

There are important factors to keep in mind when examining these data. Soldiers do not have a "9 to 5" job, and many of them have physically demanding duties. More than you would find in a general community population, those in active duty and the reserve may change shifts, do overtime and double shifts, and engage in very physically demanding training and work

duties. Thus, work factors beyond their control may affect the amount of sleep they get. Women soldiers may also have conflicts between work and home demands, and they may perceive discrimination and harassment. Such stressors may also contribute to sleep problems. Furthermore, just as you might find in a sample of medical residents working shifts of 12 hours or longer, sleep problems may be endemic among certain groups of soldiers because of the nature of their training and work.

When examining the individual sleep scale items, we found that the most frequently endorsed items support this interpretation. We did not find high rates of apnea symptoms. Rather the two most frequently reported symptoms were “getting the amount of sleep you need” (36% of the sample reported this happened none of the time or only a little of the time in the past 4 weeks) and “getting enough sleep to feel rested upon waking in the morning” (29% reported this happened none of the time or only a little of the time in the past 4 weeks). Two symptoms, “having trouble falling asleep” and “awaking during their sleep time and having trouble falling asleep again” were reported by 17% of the sample to have happened either all of the time or most of the time in the past 4 weeks. Thus, the factors producing the high sleep scores may be: (1) having jobs that keep them from getting needed sleep and (2) stress that makes it difficult to sleep or sleep well.

As noted earlier, sleep problems can result in other health problems and in inefficiency and poor performance. Therefore, the implications of the high prevalence of sleep problems in the Army population, particularly among enlisted women, has important implications for maintaining the quality and readiness of the force.

### 11.4.3 Weight

**Table 11.3. Proportion of Women Troubled by Staying within Weight Standard**

<b>Troubled by Staying within Weight Standard</b>	<b>Total (n=1468)</b>	<b>Active Duty Enlisted (n=746)</b>	<b>Reserve Enlisted (n=453)</b>	<b>Reserve Officer (n=205)</b>
Very troubled	18.3	19.3	18.5	16.1
Somewhat troubled	30.4	28.4	33.1	30.2
Not troubled at all	51.2	52.3	48.3	53.7

Trying to maintain the Army's weight standard was reported to be difficult by many women in our focus groups, some of whom felt the standard was too strict. In Table 11.3, you can see that almost half of the sample reported being somewhat troubled or very troubled over problems in trying to maintain the Army's weight standard; almost one-fifth of the sample reported being very troubled. Similar proportions of women across rank/branch groups reported having trouble staying within the Army's weight standard.

#### 11.4.4 Pregnancy

**Table 11.4. Proportion of Women with Problems Performing Strenuous Duty Late in Pregnancy**

<b>Problem Carrying out Strenuous Duties Late in Pregnancy</b>	<b>Total (n=454)</b>	<b>Reserve Enlisted (n=93)</b>	<b>Reserve Enlisted (n=93)</b>	<b>Reserve Officer (n=51)</b>
No/little problem	65.4	63.4	63.4	80.4
Moderate problem	17.2	18.3	18.3	7.8
Very much a problem	17.4	18.3	18.3	11.8

In our focus groups, some women reported that they were disturbed at having to carry out very physically strenuous duties late in their pregnancies. They not only found such duties very difficult, but they were also concerned about jeopardizing their health or their babies' health. Overall, 35% of the women in our survey sample who had been pregnant while in the Army/Army Reserve reported problems with performing strenuous duties late in their pregnancies. Similar proportions of women across rank/branch groups reported problems, with the exception of reserve officer women, who reported the least problems, 20%.

**Table 11.5. Proportion of Women Experiencing Negative Attitudes Toward Them Due to Being Pregnant**

<b>Negative Attitude Toward You Because Pregnant</b>	<b>Total (n=460)</b>	<b>Active Duty Enlisted (n=299)</b>	<b>Reserve Enlisted (n=93)</b>	<b>Reserve Officer (n=52)</b>
No/little problem	54.4	47.2	66.7	69.2
Moderate problem	22.8	25.1	17.2	19.2
Very much a problem	22.8	27.8	16.1	11.5

Almost half the total sample of women who had been pregnant while in the Army/Army Reserve (46%) reported that being pregnant resulted in moderate problems to a lot of problems with negative attitudes from their fellow soldiers and/or officers. Across rank/branch groups, active duty enlisted women (53%) reported the highest proportion of moderate problems to very many problems with negative attitudes. Among the reservists, enlisted women (33%) reported slightly higher moderate problems to very many problems than their officer counterparts (31%).

**Table 11.6. Proportion of Women with Problems Returning to Strenuous Duty After Giving Birth**

<b>Problem Returning to Strenuous Duty after Birth</b>	<b>Total (n=443)</b>	<b>Active Duty Enlisted (n=284)</b>	<b>Reserve Enlisted (n=93)</b>	<b>Reserve Officer (n=50)</b>
No/Little problem	43.8	34.9	53.8	64.0
Moderate problem	22.8	23.9	22.6	22.0
Very much a problem	21.0	24.3	17.2	12.0
Still pregnant	12.4	16.9	6.5	2.0

Overall 44% of the women reported problems returning to strenuous duty after giving birth. Across the rank/branch groups, active duty enlisted women had the highest proportion of problems (48%), followed by reserve enlisted women (40%). Reserve officer women reported the least problems (34%).

**Table 11.7. Proportion of Women reporting Problems with Taking Time off to Care for a Sick Child**

<b>Taking Time off to Care for a Sick Child</b>	<b>Total (n=443)</b>	<b>Active Duty Enlisted (n=284)</b>	<b>Reserve Enlisted (n=93)</b>	<b>Reserve Officer (n=50)</b>
No/Little problem	46.5	39.8	52.7	68.0
Moderate problem	19.9	19.4	18.3	22.0
Very much problems	22.1	25.4	22.6	8
Still pregnant	11.5	15.5	6.5	2.0

Among the overall population sample, 42% of the women reported problems with taking time off to care for a sick child, and one-fourth of the women found it to be very much of a problem. The findings for the two enlisted groups were similar, but a smaller proportion of reserve officer women reported problems.

**Table 11.8. Proportion of Women with Child Care Problems**

<b>Find Affordable Child Care During Duty Hours</b>	<b>Total (n=443)</b>	<b>Active Duty Enlisted (n=284)</b>	<b>Reserve Enlisted (n=94)</b>	<b>Reserve Officer (n=49)</b>
No/Little problem	36.1	30.6	37.2	57.1
Moderate problem	21.2	22.5	21.3	14.3
Very much of a problem	31.2	31.3	35.1	26.5
Still pregnant	11.5	15.5	6.4	2.0

More than half of the women in the total sample reported that trying to secure child care for their dependents was a moderate problem or very much of a problem. For active duty enlisted women and reserve enlisted women, the proportions were similar to the overall sample. However, for reserve officer women, the proportion was notably lower than for their enlisted counterparts.

#### **11.4.5 Blood Pressure**

**Table 11.9. Proportion of Women Having High Blood Pressure**

<b>High Blood Pressure</b>	<b>Total (N=1436)</b>	<b>Active Enlisted (n=714)</b>	<b>Reserves Enlisted (n=453)</b>	<b>Reserves Officer (n=206)</b>
Never	85.5	84.9	86.3	85.0
Yes, not in past year	4.5	4.9	4.2	4.9
Yes, past year	10.0	10.2	9.5	10.2

Overall, 10% of the total population reported having high blood pressure in the past year, and 4% reported having high blood pressure at some time in the past. Across the rank/branch groups, the outcomes were similar to those of the total population.

## 12.0 OTHER STRESSORS

This section contains information and findings on two additional chronic stressors: a woman working in a man's world and financial strain. Some of the effects that correlated with a woman working in a man's world can be considered gender discrimination; those findings are presented in Section 6 on sexual harassment. Because financial strain has such a strong potential negative effect on the outcomes selected in this study, the more detailed information on financial strain is assessed and presented separately from the data on stressful life events (Section 9) and the data on daily hassles (Section 10).

### 12.1 Women Working in a Man's World

Women have increased their presence in the military by nine-fold since the 1980s. Although women are entering the work force and the Army in record numbers, they still tend to have lower salaries and less powerful positions, and they are still working in traditionally "stereotyped" positions instead of in innovative positions (Eshkol et al., 1987; Greenglass, 1985; Kelner et al., 1986). The discriminatory practices and sexual harassment that women experience in the workplace and the significant role conflicts that are unique to women (family/work roles and gender/work roles) may result in higher stress levels for women than men, work dissatisfaction, and work turnover (DeFleur, 1985). These problems are exacerbated when women work in a job that is thought of as a male profession, and at least a significant minority of men believe that women should not be in roles to which they are assigned. Such a male "culture" often devalues women and the characteristics and experiences of women, such as having children.

Although there has been an expansion of occupational roles for women and an increase in the number of women in the Army, the Army is still primarily comprised of men, and it is still male-dominated. In some cases, women who have more "male qualities", like being independent, active, competitive, rational, and self-confident, have better mental health and greater job satisfaction than their peers (Marsden, 1991). However, the pressure for women in

the Army to exhibit more male qualities places women in conflict with their expected and traditional gender role (Freeman and Bisesi, 1988). This conflict may lead to mental health problems and lower job satisfaction.

In a study on stressors of women police officers, women most often reported “being women in a male-dominated department” as an important stressor during interviews (Bartol et al., 1992). In a study by Fitzgerald, Drasgow, and Magley (1999), investigators found that sexual harassment occurred more frequently in groups, which consisted heavily of personnel of one gender and only one or a few members of the opposite gender. Social expectations are seen to drive much of the stress associated with the excessive role conflicts and work-family conflicts that women experience, compared to men. Even in female-dominated environments, gender norms are consistent with social norms, not with the gender norms of females (Barnett et al., 1985; Borman, 1993).

### 12.1.1 Measurement

This construct was measured within a set of items asking about your military job. It was assessed with item C35: In your workgroup, are most of the personnel women or men, or are there about an equal number of men and women?

### 12.1.2 Variable Creation

The original response categories for item C35 were: 1, most/all women; 2, most/all men, 3, about the same; and 4, don't know. For the descriptive analysis, categories 1 and 3 were collapsed in order to create a new category 1 for “most/all women, about the same.” The reason for collapsing these two categories is the theory that the actual stressor is women working in a male-dominated environment. We believe that women working among mostly women or in a work environment that has an equally divided male:female ratio is less stressful.

### 12.1.3 Descriptive Findings

**Table 12.1. Distribution of Gender in the Workplace**

Distribution of Gender in Workplace	Total (n=1316)	Active Duty Enlisted (n=674)	Reserve Enlisted (n=404)	Reserve Officer (n=185)
Most/all women, about the same	60.0	51.6	66.6	75.1
Most/all men	40.0	48.4	33.4	24.9

Even in "today's Army," 40% of the sample of women reported working among most/all men. There were substantial differences among the rank/branch groups, ranging from a high of 49% for active duty enlisted women to a low of 75% for reserve officer women. One likely reason for the lower rate among reserves is that one-third of them have a medical MOS and so are probably working in a nursing or other medical unit.

## **12.2 Financial Strain**

Another frequent, chronic stressor is financial strain. One form of daily hassles, financial strain is a daily reality that affects behavior. "Not enough money" and "debts" were listed as daily hassles (see Section 10) and endorsed by many respondents.

### **12.2.1 Measurement/Scale**

We asked seven questions about not having enough money for expenses. The first was whether, in the past 12 months, the respondent had received any kind of public assistance such as food stamps or welfare. Although traditional welfare programs may no longer exist in many places and although current public assistance programs may have different names in different states, we used the term "welfare" because it is generally well understood. The remaining questions asked whether, in the past 12 months, the respondent had enough money to cover different kind of expenses. The response categories were: no, sometimes, or yes. The expense categories asked about included: food; clothing; housing; transportation; fun or recreational activities, like seeing a movie or eating in a restaurant; and child care. The child care option had an additional response category: no young child. Factor analysis indicated that the items included in this analysis (D3, D4a-e) constituted a single factor of correlated items. The financial strain scale showed good internal consistency (Cronbach  $\alpha = 0.79$ )

### **12.2.2 Scale Creation**

We created a "financial strain scale," however, because not everyone had a young child. We did not include child care in our index. We created a scale of the remaining six items such that: a "no" response on the public assistance item and a "no" response on the expense categories were each coded 0; a "yes" response on the public assistance item and a "sometimes" response on the expense categories were each coded 1; and a "yes" response on the expense categories was coded 2. The scores for the six items were added together for a total financial strain score.

Our model variable collapsed the financial strain score into three categories: 0-1, little or no financial strain; 2-4, mild financial strain; and 5 and above, substantial financial strain.

### 12.2.3 Descriptive Findings

**Table 12.2. Proportion of Women Having Received Public Assistance**

Received Public Assistance	Total (n=1514)	Active Duty Enlisted (n=768)	Reserve Enlisted (n=472)	Reserve Officer (n=210)
Yes	5.3	6.1	6.8	0.5
No	94.7	93.9	93.2	99.5

Slightly more than 5% of the women had received public assistance in the past year. Across the rank/branch groups, the active duty enlisted and reserve enlisted groups had comparable distributions, with women in each group at least 12 times more likely than reserve officer women to have received public assistance in the past year.

**Table 12.3. Proportion of Women Having Money to Cover Food Expenses**

Have Money To Cover Food Expenses	Total (n=1505)	Active Duty Enlisted (n=762)	Reserve Enlisted (n=468)	Reserve Officer (n=211)
No	5.4	6.3	5.8	2.8
Sometimes	14.6	17.2	16.7	3.3
Yes	80.0	76.5	77.6	93.8

Of the total sample, 20% reported not having enough money to cover food expenses either some of the time or routinely. Reserve officer women were most likely to have enough money to cover food expenses. Active duty enlisted women and reserve enlisted women were twice as likely as reserve officer women to not have enough money for food expenses and more than five times as likely to only have enough money for food expenses some of the time. It is surprising that one-fifth of the Army sample did not have enough money to pay for something as essential as food at least some of the time.

**Table 12.4. Proportion of Women Having Money to Cover Clothing Expenses**

Have Money To Cover Clothing	Total (n=1506)	Active Duty Enlisted (n=761)	Reserve Enlisted (n=470)	Reserve Officer (n=211)
No	13.3	15.8	14.3	5.2
Sometimes	20.3	22.1	24.3	9.0
Yes	66.4	62.2	61.5	85.8

One-third of the total sample reported not having enough money to cover clothing either some of the time or all of the time. Again, reserve officer women were the most likely to have enough money to cover clothing. Active duty enlisted women and reserve enlisted women were almost three times as likely as reserve officer women to either not have enough money for clothing or only have enough money for clothing some of the time.

**Table 12.5. Proportion of Women Having Money to Cover Housing Expenses**

Have Money To Cover Housing	Total (n=1482)	Active Duty Enlisted (n=740)	Reserve Enlisted (n=467)	Reserve Officer (n=211)
No	7.3	8.8	7.5	3.8
Sometimes	9.1	8.0	13.5	5.7
Yes	83.6	83.2	79.0	90.5

**Table 12.6. Proportion of Women Having Money to Cover Transportation Expenses**

Have Money To Cover Transportation	Total (n=1495)	Active Duty Enlisted (n=755)	Reserve Enlisted (n=467)	Reserve Officer (n=209)
No	6.4	7.3	7.1	2.9
Sometimes	15.2	16.4	18.8	6.7
Yes	78.5	76.3	74.1	90.4

More than 16% of the sample reported difficulty paying for housing, and almost one-fourth reported difficulty paying for transportation either some of the time or all of the time. An overwhelming proportion of the reserve officer group reported having enough money to cover transportation and housing expenses. Active duty enlisted women and reserve enlisted women were more than twice as likely as reserve officer women to either not have enough money or

only have enough money to cover transportation and housing expenses some of the time.

**Table 12.7. Proportion of Women Having Money to Cover Fun Expenses**

Have Money To Cover Fun (Movie, Etc)	Total (n=1507)	Active Duty Enlisted (n=763)	Reserve Enlisted (n=470)	Reserve Officer (n=210)
No	20.9	22.9	23.8	11.4
Sometimes	30.8	34.7	32.8	18.6
Yes	48.3	42.3	43.4	70.0

Overall, more than half of the women reported having money available for fun or recreational activities. A slightly higher proportion of both active duty enlisted women and reserve enlisted women reported having no money available or having money only sometimes.

**Table 12.8. Proportion of Women Having Money to Cover Child Care Expenses**

Have Money To Cover Child Care	Total (n=651)	Active Duty Enlisted (n=745)	Reserve Enlisted (n=453)	Reserve Officer (n=209)
No	18.7	21.2	22.6	5.5
Sometimes	14.9	13.9	19.0	14.3
Yes	66.4	64.9	58.4	80.2

One-third of the total sample reported not having money to pay for child care expenses. There is a substantial difference across the rank/branch groups, with active duty enlisted women and reserve enlisted women four times more likely than reserve officer women to not have money for child care. The reserve enlisted group was least likely to have funds for child care, with almost half of the women having either no money for child care or money for child care only some of the time.

**Table 12.9. Degree of Financial Strain**

Financial Strain	Total (n=1510)	Active Duty Enlisted (n=765)	Reserve Enlisted (n=470)	Reserve Officer (n=211)
Low	58.6	52.7	54.0	81.5
Medium	23.5	27.2	24.9	11.9
High	17.9	20.1	21.1	6.6

More than half of the total sample of women reported having a low level of financial strain. Distributions are comparable for across the active duty enlisted and reserve enlisted groups. The reserve officer group had a substantially smaller proportion of women reporting high financial strain than the other two rank/branch groups. However, one-fifth of the enlisted women (active duty and reserve) reported a high degree of financial strain, and almost half of the enlisted women reported medium-to-high levels of financial strain. Active duty enlisted women and reserve enlisted women were three times more likely to have a high level of financial strain than reserve officer women.

#### **12.2.4 Major Differences**

Overall, reserve officer women have less financial strain than women in the other two rank/branch groups. The reserve officer group tends to be consistently and substantially better off financially than the other two rank/branch groups for all the items reviewed in this analysis: food, clothing, housing, transportation, fun/recreation, and child care.

## **13.0 SOCIAL SUPPORT**

### **13.1 Support from Family and Friends**

Social support has been found to be a protective factor for stress and to produce better outcomes for those encountering adverse situations. Therefore, we included items in the questionnaire to assess both personal (family, friends, spouse) and coworker support.

#### **13.1.1 Measurement**

Measures of social support from friends and family came from a 13-question section of the questionnaire entitled, "Support from Family and Friends". These questions were derived from the Duke Social Support Index (Landerman et al., 1989), which was developed as part of the Piedmont Health Survey (PHS)--one of the five sites for the NIMH Epidemiological Catchment Area Program (Regier et al., 1984). Two of the five factors measured by the PHS were used in the present study: satisfaction with social support and perceived social support. These scales were selected, because previous research suggests that subjective perceptions of social support are most strongly related to mental health outcomes (Cohen and Wills, 1985; Kessler and McLeod, 1985).

#### **13.1.2 Variable Creation**

The two PHS factors included in this study used 11 questions--four (items F1-F4) for the construct assessing "satisfaction" with social support and seven (F5-F11) for the construct assessing "perceived" social support. Satisfaction with social support was defined as the total score across the answers to the construct's four questions. Answers for items F1, F2, and F4 were coded as 0, 1, and 2, with 2 representing the greatest level of satisfaction; the yes/no answers for item F3 were coded 0 and 1, with 1 representing satisfaction. The range for the four items was thus 0-7.

Perceived social support was defined as the total across the construct's seven items. Item F5 was first reversed, so all answers were coded with the highest value representing the most perceived support. Then, items F5-F11 were coded 0, 1, and 2, with 2 representing the perception of the highest level of support. The range was thus 0-14.

Cutoff points were created for the two indices to create dichotomous variables for our models. In the PHS, the cutoff point for satisfaction with social support was the upper 85%

(adequate satisfaction) and the cutoff point for perceived social support was the upper 67% (adequate support). Individuals falling below these cutoff points in the PHS were defined as having inadequate support. These cutoff points were derived empirically to show the greatest relationship to mental health outcomes. We use similar cutoff points to create dichotomous social support variables for use in our models.

### 13.1.3 Descriptive Findings

**Table 13.1. Social Support**

Satisfaction with Social Support	Total (n=1494)	Active Duty Enlisted (n=760)	Reserve Enlisted (n=460)	Reserve Officer (n=210)
Low	20.8	22.5	20.7	14.3
Medium	39.2	41.7	34.8	43.8
High	40.0	35.8	44.6	41.9

Overall, 80% of the total sample reported medium or high satisfaction with social support. These findings were the same for reserve enlisted women. However, reserve officer women had the lowest proportion of low satisfaction (14%) with social support and active duty enlisted women had the highest (23%).

**Table 13.2. Perceived Social Support**

Perceived Social Support	Total (n=1488)	Active Duty Enlisted (n=755)	Reserve Enlisted (n=460)	Reserve Officer (n=209)
Very low	15.3	16.4	16.7	9.6
Somewhat low	14.6	14.3	17.0	11.5
Medium	15.7	15.9	16.1	12.9
High	54.5	53.4	50.2	66.0

More than two-thirds of the total population reported perceived social support as medium or high, and 30% reported perceived social support as very low or somewhat low. Across the rank/branch groups, enlisted women (active and reserve) were more likely to report perceived social support as very low or somewhat low (30%-33%). Reserve officer women were less likely to perceive social support as very low or somewhat low (21%). These data are important because social support is one of the primary buffers between a series of stress factors, including role conflicts and job stress, and job satisfaction, improved coping styles and improved mental health, particularly among women.

## **13.2 Social Support from Coworkers**

Coworker social support has been found to buffer the effects of job stress and to be associated with better health outcomes and avoidance of negative experiences (Cohen and Wills, 1985; Ducharme and Martin, 2000; Rospenda et al., 1994; Snapp, 1992).

### **13.2.1 Measurement**

The questions on peer support at work were derived from a set of ten items (C36-C45) about peer relationships at work. We included in the assessment three of the four components of coworker support that were found in the literature (Cohen and Wills, 1985): affective support, informational support, and instrumental support. (The fourth component is social companionship.) Answer categories ranged from "very true" and "somewhat true" to "not very true" and "not at all true." For many of the items (C36, C39-C45), the scoring was reversed before scale creation, so that a higher score reflected more support.

### **13.2.2 Variable Creation**

The five items (C38, C39, C41, C44 and C45) that constituted the factor for peer affective social support were derived from another study (Ducharme and Martin, 2000). All items were coded 0-3, going from the least support to the most support, and then summed. The range for the scale was 0-15. Two of the four items (C42, C43) in the factor for peer instrumental support were from the National Employment Survey, and two items (C36, C37) were developed for the present study. The same coding scheme was used for these items, and the range for the scale was 0-12. A single item (C40) that asked whether coworkers gave useful advice on how to solve job-related problems was used to assess informational support. Items were scored from least support

**Table 13.4. Affective Support from Coworkers**

<b>Affective Support from Coworker</b>	<b>Total (n=1466)</b>	<b>Active Duty Enlisted (n=749)</b>	<b>Reserve Enlisted (n=456)</b>	<b>Reserve Officer (n=198)</b>
Very low	5.7	8.0	3.5	2.0
Somewhat low	11.7	14.3	10.1	7.6
Medium	31.5	31.8	33.6	28.3
Somewhat high	27.1	27.2	26.1	27.3
Very high	24.2	18.7	26.8	34.9

Affective support provides the recipient with feelings of acceptance and being cared for (Ducharme and Martin, 2000). It provides a person with feelings of self-esteem and value for their own self-worth (Cohen and Wills, 1985). Overall, 51% of the total sample population reported affective support from coworkers as somewhat high or very high. Again, across the rank/branch groups, rates ranged from 46% of active duty enlisted women to 53% for reserve enlisted women, to 72% for reserve officer women. Active duty enlisted women (22%) were more than twice as likely as reserve officer women (10%) to report affective support from coworkers as somewhat low or very low.

**Table 13.5. Instrumental Support from Coworkers**

<b>Instrumental Support from Coworkers</b>	<b>Total (n=1459)</b>	<b>Active Duty Enlisted (n=745)</b>	<b>Reserve Enlisted (n=452)</b>	<b>Reserve Officer (n=200)</b>
Low	16.7	21.5	14.6	7.5
Medium	26.2	26.7	26.3	25.5
High	57.1	51.8	59.1	67.0

Instrumental support is defined as involving material assistance in response to specific needs (Ducharme and Martin, 2000). In battle, instrumental support includes being correctly and safely directed, being provided ammunition and supplies, and being protected from physical elements (Solomon et al., 1986). More than half of the total sample reported instrumental support from coworkers as high. Across the rank/branch groups, half of active duty enlisted women reported instrumental support from coworkers as high, while two-thirds of reserve officer

to most support.

For our models, the two multi-item coworker support scales were collapsed to three levels. For the instrumental coworker support scale, these were low (0-6 or mostly low levels of reported support); medium (7-8 or mostly medium levels of reported support) and high (9-12 or mostly high levels of reported support). For coworker affective support the groupings were low (0-8); medium (9-11) and high (12-15).

### 13.2.3 Descriptive Findings

**Table 13.3. Informational Support: Useful Job-Related Advice from Coworkers**

<b>Coworkers Give Useful Advice</b>	<b>Total (n=1454)</b>	<b>Active Duty Enlisted (n=742)</b>	<b>Reserve Enlisted (n=449)</b>	<b>Reserve Officer (n=200)</b>
Not at all true	4.0	5.7	2.7	1.5
Not very true	7.3	9.2	6.5	3.5
Somewhat true	33.5	31.5	37.0	34.5
Very true	55.2	53.6	53.9	60.5

Informational social support is defined as involving the provision of advice or guidance (Ducharme and Martin, 2000). A majority of the total sample (89%) reported receiving informational support from coworkers as somewhat true or very true. The responses ranged from 84% for active duty enlisted women to 95% for reserve officer women. Active duty enlisted women (15%) were three times as likely as reserve officer women (5%) to report receiving informational support from coworkers as not at all true or not very true.

women reported instrumental support from coworkers as high. Active duty enlisted women were three times as likely as reserve officer women to report instrumental support from coworkers as low, and reserve enlisted women were twice as likely as reserve officer women to report instrumental support from coworkers as low.

### 13.3 Social Support from Spouse/Partner

#### 13.3.1 Variable Creation

The third construct in assessing interpersonal support is the quality of the relationship between the respondent and her husband or the person with whom she was living as married. This was assessed with one item and was only asked of those women who checked the marital status "married or living as married." More than half of the women in the sample were single, separated, divorced, or widowed, and so (appropriately) did not answer this question.

#### 13.3.2 Measurement

The relationship with a spouse/partner was assessed by item E4: Would you say your relationship with your spouse is: very good, pretty good, mixed/up and down, not very good, pretty bad. Those answering pretty bad, not very good, or mixed (up and down) were coded low on social support from spouse or partner; those answering pretty good were coded as medium on social support; and those answering very good were coded high on social support from spouse/partner.

#### 13.3.3 Descriptive Findings

Table 13.6. Spousal Support

Spousal Support	Total (n=681)	Active Duty Enlisted (n=357)	Reserve Enlisted (n=165)	Reserve Officer (n=122)
Low	24.8	24.9	30.9	18.9
Medium	31.4	31.1	33.3	33.6
High	43.8	44.0	35.8	47.5

High spousal support was reported by 44% of the total sample. Across the rank/branch groups, 36% of reserve enlisted women reported high spousal support, compared to 44% of active duty enlisted women and 48% of reserve officer women. Low spousal support was reported by 25% of the total sample population, with reserve enlisted women reporting the highest proportion of low spousal support (31%).

## **14.0 OTHER MODERATORS**

This section presents data on other moderators of importance for both the descriptive and higher level analyses, including quality of supervisors, job satisfaction and stress-reducing activities.

### **14.1 Quality of Supervisors**

#### **14.1.1 Measurement/Scale Used**

A positive perception of the quality of supervisors or the quality of supervision is important for buffering stress and maximizing support of women, particularly women in the military who may suffer a disproportionate amount of work/family stresses and role conflicts compared to their civilian counterparts. As described in the literature review, support from supervisors is also a more important buffer for women than for men.

#### **14.1.2 Variable Creation**

Items C20, C22, C24, and C26 were used to create this variable. The first three of these items were taken from the National Employment Survey (NES), and the last two were developed for this survey. Those items include:

- C20: Supervisors are very concerned for the welfare of those who work under them.
- C21: Supervisors encourage soldiers to work as a team.
- C22: Job decisions are applied consistently across all affected soldiers.
- C24: Supervisors are good at their job.
- C26: Supervisors often make unreasonable or unrealistic demands of soldiers.

The original response categories for these items were: 1, very true; 2, somewhat true; 3, not very true; 4, not at all true; and 5, don't know.

The responses to items C20-22 and C24 were reverse coded, so poorer supervision was always the lower score. All answers were recoded, so that the values ranged from 0-2 instead of 1-3, and then added together, so that the range was 0-15. These values were collapsed into three groups, which generally reflected the following: poor (0-7), in which respondents coded their supervisors 0 or 1 on all or virtually all items; fair (8-11), in which respondents generally coded their supervisors 1 on most items or gave mixed reviews ranging from 0 to 3; and good (9-15), in which respondents gave their supervisors 2 on most items. Scale reliability for the quality of

supervisor factor was  $\alpha=.85$ , and a principal components factor analysis of the items produced the factor pattern for the “quality of supervisors.”

### 14.1.3 Descriptive Findings

**Table 14.1. Quality of Supervisors by Rank/Branch**

Quality of Supervisor	Total (n=1523)	Active Duty Enlisted (n=772)	Reserve Enlisted (n=474)	Reserve Officer (n=212)
Poor	29.7	36.5	25.1	20.8
Fair	43.7	42.0	43.5	49.1
Good	26.7	21.5	31.4	30.2

In general, the respondents rated the quality of their supervisors as fair. The active duty enlisted group reported a higher proportion of their supervisors as poor than the active duty enlisted in the other two rank/branch groups did. The reserve enlisted and reserve officer groups had a slightly higher proportion of women reporting the quality of their supervisors as good.

## 14.2 Job Satisfaction

### 14.2.1 Measurement/Scale Used

Job satisfaction is closely related to job performance, absenteeism, and retention. Studies have found that worker dissatisfaction also results in an increased consumption of licit and illicit substances (Martin et al., 1996), and these studies support the theory that job satisfaction has a spillover effect for worker behavior outside the work setting. Furthermore, job satisfaction is directly associated with coworker social support, particularly affective and instrumental support (Ducharme et al., 2000).

### 14.2.2 Variable Creation

Item C18 was used to collect job satisfaction data: Taking everything into consideration, how satisfied would you say you are with your work assignment?

### 14.2.3 Descriptive Findings

Table 14.2. Job Satisfaction

Job Satisfaction	Total (n=1495)	Active Duty Enlisted (n=762)	Reserve Enlisted (n=463)	Reserve Officer (n=207)
Very dissatisfied	17.4	19.7	19.0	9.7
Somewhat dissatisfied	19.4	21.5	17.3	18.8
Somewhat satisfied	42.4	40.2	44.5	44.0
Very satisfied	20.8	18.6	19.2	27.5

More than 63% of the total sample reported being somewhat satisfied or very satisfied with their work assignments. Across rank/branch groups, reserve officer women and reserve enlisted women reported being more satisfied with their work assignments than active duty enlisted women. Nonetheless, overall, more than one-third of the sample reported. The active duty enlisted and reserve enlisted groups had the highest proportion of women (almost 20%) reporting that they were very dissatisfied with their work assignments, with rates twice as high as the proportion reported by reserve officer women.

### 14.2.4 Major Differences

## 14.3 Stress-Reducing Activities

### 14.3.1 Measurement/Scale Used

As described by the Gale Encyclopedia of Medicine, stress is the body's normal response to anything that disturbs its natural physical, emotional, or mental balance. Stress reduction refers to various strategies that counteract this response and produce a sense of relaxation and tranquility.

Some leisure activities such as exercise and hobbies can contribute to the reduction of stress. Stress-reducing activities among women are important, because stress has been found to adversely affect productivity, absenteeism, worker turnover, and employee health and well-being (Spielberger et al., 1994). Furthermore, stress may lead to somatic illness, including migraine, nausea, tension headache, and muscular discomfort and pain (Lewis, 1988). All of these problems increase sick days and reduce productivity. Therefore, stress-reducing activities are important for women in the Army, to ensure emotional and physical well-being.

### 14.3.2 Variable Creation

Items F12 and F13 were used to create this variable:

- F12. Do you have any hobbies, sports, or other activities that greatly help reduce your stress level?
- F13. If yes, on the average, about how many hours each week do you participate in activities that greatly help to reduce your stress?

Respondents were not asked what type of activity they participated in; however, they were instructed to include hobbies, sports, or any other activities that helped them reduce their stress. These two questions were combined into one variable ranging from none to 7+ hours. The value zero is included in the second category to represent more than none but less than 1 hour a week (for example, 30 minutes a week).

### 14.4 Descriptive Findings

**Table 14.3. Time Spent on Stress-Reducing Activities**

<b>Time Spent on Stress-Reducing Activities</b>	<b>Total (n=1476)</b>	<b>Active Duty Enlisted (n=754)</b>	<b>Reserve Enlisted (n=455)</b>	<b>Reserve Officer (n=203)</b>
No stress reducer	24.1	28.1	24.2	13.3
0-3 hours	29.7	26.3	33.9	36.5
4-6 hours	27.6	25.9	26.8	28.1
7+ hours	18.6	19.8	15.2	22.2

Almost half of the sample reported spending a medium or high amount of time on stress-reducing activities per week, but half also reported spending 3 hours or less on such activities a week. Across the rank/branch groups, the most interesting finding was that active duty enlisted women and reserve enlisted women were twice as likely as reserve officer women to spend no time on stress-reducing activities. This finding may result, in part, from the fact that 40% of our sample were mothers of young children, a condition that often precludes leisure time activities. Long hours on the job may also be a factor.

## **15.0 JOB ABSENTEEISM**

Theories about work stress-absenteeism propose that stress leads to absenteeism and that absenteeism leads to stress (Hendrix et al., 1994), among others. Job absenteeism can be psychological withdrawal from the work setting due to job stress. Thus, job stress can lead to absenteeism. However, job absenteeism in turn, results in stress or pressure to attend work.

### **15.1 Measurement/Scale Used**

Sick days are costly to employers, and the military is no exception. Sick days may also affect readiness and have other negative impacts on operating efficiency. Even when soldiers come to work, if they are not feeling “up to par” as the result of physical health, mental health, or substance abuse problems, the unit’s work can be negatively impacted. Because of selection factors, women in the Army are much less likely to have serious health problems that result in their missing a substantial number of work days. Nonetheless, we wanted to examine the number of days that women either missed work or had to cut back on what they did because of physical health, mental health, or substance abuse problems.

### **15.2 Variable Creation**

This section of the questionnaire started out by asking about the seriousness of any recent injuries sustained, then asks about any visits to a doctor or nurse for a health problem. This sets the stage for the next series of questions, which asked about days missed or cut back. Question H33 asked: How many days out of the past 30 days were you totally unable to work or carry out your normal activities? Question H37 asked: Aside from any days you were totally unable to work or carry out activities, were there any (other) days out of the past 30 days that you had to cut back on what you or did not get as much done as usual? We collapsed the answer categories as shown in the tables that follow.

### **15.3 Model Variations**

We originally planned to treat both of these items as dependent variables in our models. However, because there was almost no variance in the distribution on days missed, we modeled only “days cut back”.

## 15.4 Descriptive Findings

**Table 15.1. Number of Days in the Past 30 Days Unable to Work or Carry Out Normal Activities**

Days Unable To Work	Total (n=1472)	Active Enlisted (n=752)	Reserve Enlisted (n=448)	Reserve Officer (n=14.13)
0 days	82.3	77.4	87.1	87.9
1-2 days	8.0	9.6	5.4	7.7
3-6 days	6.3	8.6	4.7	2.9
7+days	3.4	4.4	2.9	1.4

Overall, 82% of the women in the sample reported that they missed no work days and they did not have any days when they were unable to carry out their normal activities. Across the rank/branch groups, the active duty enlisted group had the highest proportion of women unable to work in all three response categories. The most significant differences were in the response categories for 3-6 days and 7+ days. Active duty enlisted women were three times as likely as reserve officer women to report being unable to work 7+days and almost three as likely as reserve officer women to report being unable to work for 3-6 days.

**Table 15.2. Number of Days in the Past 30 Days Cut Down on Work or Normal Daily Activities or Did Not Get as Much Done as Usual**

Number of Days Cut Down on Work (Categorized)	Total (n=1456)	Active Enlisted (n=737)	Reserve Enlisted (n=446)	Reserve Officer (n=209)
0 days	69.5	63.9	78.3	73.7
1-4 days	13.9	12.9	11.9	17.7
5+ days	16.6	23.2	9.9	8.6

Table 15.2 indicates that, overall, 70% of the sample had no days in the past 30 days that they had to cut down on what they did or did not get as much done as usual. Across the rank/branch groups, active duty enlisted women were disproportionately represented in the response category of 5+ days, being twice as likely as reserve enlisted women and reserve officer women to cut back days in the past 30 days.

## **16.0 SUBSTANCE ABUSE**

### **16.1 Measurement**

In Section H of the questionnaire, we asked questions about the use of alcohol, the use of illegal drugs, the non-medical use of prescription drugs, and the presence and recency of problems with alcohol and illegal/prescription drugs. Questions were asked for three time periods: the past month, the past year, and the respondents lifetime.

We also included the Brief MAST (BMAST), a 10-item subset of the Michigan Alcoholism Screening Test (MAST) that is used to measure alcohol abuse and dependence (Pokorny et al., 1972). The Brief MAST is scored using a weighted sum of affirmative answers to the questions; Weights of 2 are used for less serious symptoms, and weights of 5 are used for more serious symptoms. The typical cutoff points were 4 and 6. The BMAST is highly correlated to the original full MAST (Cherpitel, 1999). A score of 4 or more indicates some drinking problems, and a score 6 or above indicates that the respondent is likely to be an alcoholic (Pokorny et al., 1972).

### **16.2 Problems with Alcohol or Problems/Abuse of Illegal/Prescription Drugs**

#### **16.2.1 Variable Creation**

##### **16.2.1.1 Problems with Drugs and Alcohol**

For item H17, only 66 women (4% of our sample) reported using illicit drugs in the past year. For item H20, only 22 women (1% of the sample) reported ever having problems from using drugs in their lifetime. We suspect under-reporting for these items, because of concerns that someone might find out that the respondents had endorsed drug use. Because the incidence of reporting drug use and drug problems (H20) was low, we aggregated and scored a variable to indicate the use of any illicit drugs (H15-H18), alcohol problems (H2-H14), and drug problems (20-22) in the past month, the past year, or the respondent's lifetime. Alcohol problems included endorsing any of the ten alcohol problems in the BMAST. (See list below. )

### 16.2.1.2 BMAST

Anyone who reported using alcohol five or more times in their lifetime were asked the BMAST items, which included the following:

- H4: Have you ever attended a meeting of Alcoholics Anonymous?
- H5: Have you ever lost friends, boyfriends, or girlfriends because of drinking?
- H6: Have you ever gotten into trouble at work because of drinking?
- H7: Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking?
- H8: Have you ever had delirium tremors (DTs), severe shaking, heard voices or seen things that weren't there after heavy drinking?
- H9: Have you ever gone to anyone for help with your drinking?
- H10: Have you ever been in a hospital because of drinking?
- H11: Have you ever been arrested for drunk driving or driving after drinking?

## 16.3 Descriptive Findings

**Table 16.1. Problems with Alcohol or Drugs**

Presence and Recency of Problems with Alcohol or Drugs		Total (n=1134)	Active Duty Enlisted (n=602)	Reserve Enlisted (n=320)	Reserve Officers (n=154)
Problems with alcohol or problems/abuse of illegal drugs or prescription drugs.	Never	65.9	60.6	65.9	78.6
	Lifetime	25.9	27.9	28.1	19.5
	Past year	4.41	6.3	3.1	.6
	Past month	3.7	5.1	2.8	1.3

Overall, 34% of the women reported having had problems with alcohol or problems/abuse of illegal/prescription drugs during the past month, the past year, or their lifetime. Less than 10% reported any drug or alcohol problems in the past year (combines proportions from the last two rows).

Across the rank/branch groups, the reserve officer group had the highest proportion of women reporting to never having had drug or alcohol problems and the lowest proportion of women reporting having had drug or alcohol problems during the past month, the past year, or their lifetime. Active duty enlisted women reported the highest proportion (11.4%) of drug use

in the past month or past year, twice as much as reserve enlisted women (5.9%) and six times as much as reserve officer women (1.9%).

**Table 16.2. Rate of Alcohol Problems\***

<b>BMAST Score</b>	<b>Total (n=1128)</b>	<b>Active Duty Enlisted (n=594)</b>	<b>Reserve Enlisted (n=319)</b>	<b>Reserve Officer (n=156)</b>
$\geq 2$	42.7	47.6	47.0	24.4
$\geq 4$	34.8	39.7	37.3	18.6
$\geq 6$ ( <i>indicating alcoholism/heavy drinking</i> )	7.8	10.6	5.3	3.8

\* The proportions in this table are not additive. The category  $\geq 2$  includes those who scored  $\geq 4$ .

Among the total sample, 35% of the women scored  $\geq 4$  on the BMAST, suggestive of some drinking problems. Across the rank/branch groups, there were substantial differences, with active duty enlisted women and reserve enlisted women twice as likely as reserve officer women to score  $\geq 4$  on the BMAST.

Overall, only 7.8% of the sample scored  $\geq 6$  on the BMAST, indicating alcoholism or heavy drinking. Again, across the rank/branch groups, there were substantial differences, with active duty enlisted women twice as likely as reserve enlisted women and three times as likely as reserve officer women to score  $\geq 6$  on the BMAST, indicating alcoholism or heavy drinking.

## **17.0 MENTAL HEALTH**

### **17.1 Measurement**

Mental health is an important outcome for any study examining stressors. Because we did not have the ability to conduct an in-depth psychological evaluation, it was necessary to choose a relatively brief measure that would provide information on the most common and important psychological disorders. To do this, we used the General Health Questionnaire (GHQ) ([www.nfer-nelson.co.uk/html/health/products/ghq.htm](http://www.nfer-nelson.co.uk/html/health/products/ghq.htm))

The GHQ is a self-administered questionnaire that assesses the respondent's present state "over the past few weeks." It has been found to correspond well with clinical assessments of psychiatric disorder. We used the 28-item version of the GHQ, which also allows for scoring of four subscales: somatic symptoms, anxiety/insomnia, social dysfunction, and severe depression.

### **17.2 Variable Creation**

We created six variables: the general GHQ score, a categorized version of the GHQ score for descriptive presentation, and the four subscales. The 28 items in the GHQ are assessed with four-item Likert scales. For example, answer categories for some questions ranged from "better than usual" to "much worse than usual."

The method used for scoring the GHQ typically codes the two "poor/troubled" responses as 1 and the two "good/untroubled" responses as 0; the range is thus 0-28. The most commonly used cutoff point is 4/5. This cutoff point has demonstrated good sensitivity, specificity, and predictive power in a variety of studies, including studies with community populations (Banks, 1983; Goldberg and Hillier, 1979). In a few studies, a more stringent cut off point of 5/6 was found to improve the balance of sensitivity and specificity. In a number of studies of community and other samples, women were found to score 10%-40% higher than men on the GHQ, but the level of clinically significant symptomatology (that is, the proportion over the cutoff point) still remained less than 20% for women (Burvill and Knuiman, 1983; Katz, 1995; Redman, et al, 1991). Problems have been encountered when using the GHQ with some groups, including those with chronic diseases (because the questions refer to changes in mental health and those with chronic diseases often also have chronic mental health problems) and those who are using a version of the GHQ translated into a language other than English.

The norms were developed with community populations, although the norms have been found to have good predictive power for other samples. Studies of military, police, firefighters, and disaster workers around the world (primarily of males) vary substantially in their findings. Among the military, police, fire fighters and disaster workers who were most exposed to traumatic events--such as serving in a war zone, fighting fires in which people died, and disaster work involving the handling of dead and dying victims--average GHQ scores were the highest, in the 25% to 40% range (Boxer and Wild, 1993; Brown et al., 1999; Unwin et al., 1999; Ward, 1997). Community women exposed to traumatic stressors, such as being raped, also have scores in this range. For example, in a study of female victims of domestic violence in Japan, 40% scored above the clinically significant threshold (Weingourt). Overall among samples of individuals in the military, firefighting, and police--a subset of whom may be exposed to serious trauma and a subset of whom may not be--rates of clinically significant GHQ scores tended to fall in the range of 10% to 25% (Clohessy and Shlers, 1999; Unwin et al., 1999; Wagner et al., 1998), and some studies have found even lower rates (Aardal et al., 1999; Dahl and Kristensen, 1997; Saroja et al., 1995).

The four GHQ subscales are scored in the same way as the total scale, but they include only those items related to the domain being assessed. The subscales do not have cutoff points, but they can be examined to determine which disorders are driving higher scores on the GHQ.

The continuous form of the GHQ was used in our models.

### 17.3 Distribution on GHQ Scores

Table 17.1. Distribution on GHQ Scores

GHQ Score	Total (n=1523)	Active Duty Enlisted (n=772)	Reserve Enlisted (n=474)	Reserve Officer (n=212)
0	24.2	18.0	28.9	34.9
1,2	16.6	15.5	16.2	19.8
3,4	11.6	12.8	11.2	9.0
5	4.8	5.6	3.6	4.3
6,7	9.7	10.5	9.7	7.1
8,9	8.5	8.6	8.4	6.6
10,11	5.9	6.7	4.4	5.7
12-14	7.2	7.9	6.8	7.1
15+	11.6	14.4	10.8	5.7

About 48% of the sample scored above the most often used cutoff point of 4/5. The active duty enlisted group had the poorest scores, with 54% scoring 5; the reserve officer group had the best scores, with 36% scoring 5. The reserve enlisted group scored between these two groups, with 44% scoring 5 or above. Even if one uses the more stringent 5/6 cutoff, 43% of the total sample score in the clinically significant range: 48% for active duty enlisted women, 40% for reserve enlisted women, and 32% for reserve officer women.

Upon first observation--even given the finding on other military samples and samples of police and fire fighters--these scores seem very high. Many of our women are in administrative jobs and other jobs that do not have a high exposure to danger and threat to life, and less than 20% of the women have been deployed in a war zone or hostile action. In findings from a study done of active duty Navy and Marine personnel, using a different assessment instrument (the Quick DIS), prevalence estimates for having a psychiatric disorder in the past year among women was 23% (Hourani and Yuan, 1999). (In the Hourani study, rates were substantially higher for officers [male and female] than for enlisted personnel, but no separate rates were provided for women officers and women enlisted.) Between 43% and 48% of our sample (depending on the cutoff point used) of healthy and high functioning women appeared to have

GHQ scores that indicated a high likelihood of the presence of a psychiatric disorder. This compares to prevalence estimates of 10% to 20% on the GHQ for samples of the community and other women.

We hypothesize those high rates stem from a combination of several factors: the high physical demands of the job and related sleep deprivation (including shift work, long hours); the additional psychological stress put on women but not so much on men, such as the effects of sexist behavior, sexual harassment, and work-home conflicts (because the woman is usually expected to carry more of home and child care responsibilities); women more often being in the lower level, lower paying jobs than men; and the greater likelihood of women feeling higher levels of perceived stress in interpersonal conflicts than men do. Financial strain has been found in at least one study to increase GHQ scores in military samples (Schei, 1994), and women in the Army, as elsewhere, are more likely to be in lower level jobs that pay less. There is at least preliminary evidence that shift-work can raise GHQ scores (Spelten, 1993). Another study found GHQ scores in military personnel to be inversely related to rank (Ismail, 2000). Yet another study of high rates of GHQ among Norwegian conscripts related high GHQ scores to a lack of meaningful work (Schei, 1994). In addition, half of our sample had experienced either a physical or sexual assault in their lifetime and 12% within the past year, which could be related to higher GHQ scores for some women.

Forshadowing the findings from our regression models, multivariate predictors of high GHQ scores included high job pressure, high levels of stressful life events, high levels of daily hassles, sexual coercion, and sexual assault. These multivariate findings give strong support to our hypothesis.

An examination of the subscales may help us to better understand the overall GHQ scores.

**Table 17.2. Depression Subscale**

<b>Depression Score</b>	<b>Total (n=1482)</b>	<b>Active Duty Enlisted (n=751)</b>	<b>Reserve Enlisted (n=457)</b>	<b>Reserve Officer (n=210)</b>
0(0)	77.3	75.2	75.3	85.2
1(1)	10.3	11.2	10.5	9.1
2(2)	4.3	4.3	5.5	2.4
3(3)	2.6	2.7	2.8	1.9
4+(4)	5.5	6.7	5.9	1.4

**Table 17.3. Dysfunction Subscale**

<b>Dysfunction Score</b>	<b>Total (n=14800)</b>	<b>Active Duty Enlisted (n=751)</b>	<b>Reserve Enlisted (n=456)</b>	<b>Reserve Officer (n=209)</b>
0(0)	48.2	42.3	52.6	55.0
1(1)	18.6	20.2	17.1	16.8
2(2)	10.5	12.8	8.8	6.2
3(3)	7.8	7.6	8.3	8.1
4+(4)	15.0	17.0	13.2	13.9

**Table 17.4. Anxiety/Insomnia Subscale**

<b>Anxiety/Insomnia Score</b>	<b>Total (n=1489)</b>	<b>Active Duty Enlisted (n=757)</b>	<b>Reserve Enlisted (n=458)</b>	<b>Reserve Officer (n=210)</b>
0(0)	39.4	33.0	43.5	52.9
1(1)	13.2	13.7	12.5	13.3
2(2)	9.7	11.4	9.0	4.8
3(3)	8.8	8.9	7.9	9.5
4+(4)	28.9	33.0	27.3	19.5

**Table 17.5. Somatic Subscale**

<b>Somatic Score</b>	<b>Total (n=1490)</b>	<b>Active Duty Enlisted (n=757)</b>	<b>Reserve Enlisted (n=460)</b>	<b>Reserve Officer (n=209)</b>
0(0)	40.7	34.2	45.0	54.6
1(1)	12.6	12.7	11.3	14.4
2(2)	11.8	11.4	12.6	11.5
3(3)	9.7	10.7	10.0	5.3
4+(4)	25.1	31.0	21.1	14.4

Please note that the two scales that appear to be the most elevated are the anxiety/insomnia scale and the somatic scale. Although the anxiety/insomnia scale is usually referred to as the anxiety scale and although it has been found to correlate with clinical anxiety, two of the seven items in this scale ask about insomnia symptoms. Because of the findings on the Medical Outcome Study sleepscales (Section 11), we know that this sample has high levels of sleep problems, and 28% of the sample endorsed the two GHQ sleep problem items.

The anxiety/insomnia scale also asks about:

- Feeling under strain;
- Being edgy and bad-tempered;
- Getting scared or panicky for no good reason;
- Finding that everything is getting to be too much; and
- Feeling nervous and uptight all the time.

Individuals who must work very hard under high stress, such as soldiers and particularly enlisted soldiers, might well feel such symptoms as a response to the work environment. For example, feeling under strain and being edgy and bad-tempered because of long hours, manual labor, changing shifts, double shifts, the potential of being deployed overseas (particularly in a war zone or hostile action), in addition to any gender discrimination/harassment or work-home conflicts, may be factors in the high anxiety scores. Thus, it is not surprising that these items (that is, under strain and edgy) are the two most frequently endorsed items in the anxiety/insomnia scale, with more than 40% of the sample scoring positive on these two items.

Similarly, the most frequently reported symptom in the somatic scale was feeling run down and out of sorts. This item was endorsed by 43% of the sample. The second most frequently endorsed somatic symptom was headaches, reported by 28% of the sample. Again, such symptoms may well reflect the very physically demanding work environment.

In conclusion, almost one-half of our sample met the GHQ threshold used for clinically significant psychological problems. It is our hypothesis that many of the symptoms that were most frequently endorsed on the GHQ by women in our sample reflect the stresses and strains under which they live and work. Other studies of soldiers, police, and firefighters have shown that individuals in these types of occupations tend to have elevated GHQ scores, although the rates for our women seem very high, particularly given their limited exposure to death, dying, and threat to life. We believe it is likely that, given a less stressful environment, many or most of these women would not have elevated GHQ scores.

This does not mean, however, that one should dismiss the significance of these findings. Rather, the findings highlight the fact that the stressors of Army women result in symptoms that have serious implications for mental health. Furthermore, continuing to work under this level of strain for an extended period of time can have negative outcomes for physical health, performance, other dysfunction, and retention.

## 18.0 OTHER OUTCOMES

In this section, we present data on overall performance, retention in the military, and attitude toward the Army--all of which can be negatively affected by stressors. Performance and retention are highly important to the Army because: (1) the Army cannot function effectively if performance is low and (2) the cost of recruiting and training replacements for highly qualified personnel who leave is high. Soldiers' attitudes toward the Army can affect both retention and performance.

### 18.1 Overall Performance

#### 18.1.1 Measurement

The questions used to collect data for overall performance were developed specifically for this study. This performance measure was based on reports of recognitions, performance evaluations, and disciplinary actions. Data from five questions were aggregated and scored as described in the variable creation section. Scale reliability for the "overall performance" factor was  $\alpha=.17$ , and a principal components factor analysis of the five items produced the factor pattern for "overall performance". The low alpha suggests that the performance measure was not a uni-dimensional measure but that different components of the scale were measuring different constructs.

#### 18.1.2 Variable Creation

The performance variable (items I10-I14) was created for the past 12 months by first counting up the number of negative indicators of performance in the past 12 months, next counting up the number of positive indicators in the past 12 months, and then combining these for an overall total performance score. One point for negative performance was given for an adverse efficiency report, a disciplinary action, expectation of an adverse efficiency report or disciplinary action (thus acknowledging perceptions of recent problems in performance), and a performance evaluation that was "below standards or expectations". One point was given for positive performance for receiving any of the recognitions in item I10: memorandum of appreciation or commendation, certificate of appreciation or recommendation, special evaluation report for outstanding performance, time off duty for outstanding performance, or military medal

or ribbon for outstanding performance.<sup>2</sup> Two points were given if more than one of these forms of recognition were received, and one point was given for a performance evaluation that exceeded standards or expectations. The negatives were then subtracted from the positives and 4 points added to the sum, so that the total score ranged from 0-7.

Anyone with no positive performance indicators and all four negative performance indicators received a score of 0, and scores of 0-3 indicated having received at least one negative performance indicator. A score of 4 usually represented a performance evaluation that met expectations and no other positive or negative indicators, and a score of 5 typically represented only a performance evaluation that exceeded expectations and no other indicators. The highest performing group scored 6-7 and included those who received at least one of the forms of special recognition as well as a performance evaluation that exceeded expectations.

For the model outcome variable, we conducted a multinomial logistic regression with a three-level variable: below expectations (0-3), meets expectations (4-5), and significantly exceeds expectations (6-7).

### 18.1.3 Descriptive Findings

**Table 18.1. Total Performance**

<b>Total Performance Collapsed Five-Level</b>	<b>Total (n=1485)</b>	<b>Active Duty Enlisted (n=754)</b>	<b>Reserve Enlisted (n=459)</b>	<b>Reserve Officer (n=208)</b>
Significantly below expectations (0-2)	4.2	5.2	4.1	2.4
Somewhat below expectations (3)	6.6	7.3	7.2	4.3
Meets expectations (4)	22.1	17.4	34.2	17.3
Somewhat exceeds expectations (5)	34.8	31.8	32.7	48.6
Significantly exceeds expectations (6-7)	32.3	38.3	21.8	27.4

<sup>2</sup> We recognize that this is a not a fine-tuned measure of performance in that the various "special recognitions" are not "equal." Nonetheless, we believe that finer distinctions of performance were not necessary for the type of analyses we were conducting; that is, distinguishing the "outstanding" from "very outstanding" performance would affect only a relatively small proportion of the overall sample and the main goal was to distinguish the more fundamental levels of performance.

Overall, based on self-reports of performance indicators, 67% of the total sample was rated somewhat above or significantly above expectations, and the modal score was 5 (somewhat above expectations). About 11% of the sample reported performance as somewhat below or significantly below expectations. Across the rank/branch groups, reserve officer women were most likely to report performance as somewhat above or significantly above expectations, and least likely to report performance as somewhat below or significantly below expectations. Active duty enlisted women had the highest proportion of women reporting performance as somewhat below or significantly below expectations. However, 70% of active duty enlisted women reported performance as somewhat above or significantly above expectations.

## **18.2 Retention**

Retention has been found to be associated with job satisfaction, job stress, role conflicts, physical and mental health, work environment, and perceived social support, among others.

### **18.2.1 Measurement**

Assessment of retention included questions about the probability of voluntarily leaving in the next year and long-term career intentions.

### **18.2.2 Variable Creation**

We used two items to assess retention (items I3 and I5):

- Item I3: Taking everything into consideration, how likely is it that you will voluntarily leave the Army/Army reserve in the next year? Answers ranged from very likely to not at all likely.
- Item I5: What are your career intentions if not forced out due to downsizing or cutbacks? Answer categories were: 1, definitely stay in until retirement; 2, probably stay in until retirement; 3, definitely stay in beyond my present obligation but not necessarily until retirement; 4, probably stay in beyond my current obligations but not necessary until retirement; 5, definitely leave upon completion of my present obligation; and 6, probably leave upon completion of my present obligation.

For Item 15, we switched answer categories 5 and 6 (that is, made 5 = “probably” and 6 = “definitely”), and subsequently reversed all codes so that higher values reflected higher retention. This was also our model variable.

### 18.2.3 Descriptive Findings

**Table 18.2. Proportion Indicating Likelihood of Voluntarily Leaving in the Next Year**

<b>Likelihood of Leaving Army/Army Reserve</b>	<b>Total (n=1402)</b>	<b>Active Duty Enlisted (n=717)</b>	<b>Reserve Enlisted (n=420)</b>	<b>Reserve Officer (n=203)</b>
Not at all likely	36.5	28.7	43.8	45.3
Not very likely	20.3	18.4	20.7	22.7
Somewhat likely	17.5	16.5	17.4	23.1
Very likely	25.7	36.4	18.1	8.9

Of the total sample, 43% reported that they would be somewhat likely or very likely to voluntarily leave the Army/Army reserve upon completion of their current obligation. (The data indicating that 25% would be very likely to voluntarily leave the Army are comparable to a 25% projected employee turnover rate in a given year.) Across the rank/branch groups, active duty enlisted women were four times as likely as reserve officer women and twice as likely as reserve enlisted women to report that they were very likely to voluntarily leave the Army upon completion of their current obligation. One hypothesis for this difference between active duty enlisted women and reserve women is that active duty enlisted women have greater exposure to the stressors described in this section of the report.

**Table 18.3. Proportion Indicating Various Career Intentions**

<b>Career Intentions</b>	<b>Total (n=1467)</b>	<b>Active Duty Enlisted (n=744)</b>	<b>Reserve Enlisted (n=453)</b>	<b>Reserve Officer (n=206)</b>
Definite leave when done	23.2	32.9	17.9	3.4
Probably leave when done	10.2	14.3	7.1	3.4
Probably stay beyond obligation	11.7	15.9	8.2	5.8
Definite stay beyond obligation	6.9	7.3	5.7	5.8
Probably stay until retire	18.3	13.8	21.2	27.7
Definite stay until retire	29.8	15.9	40.0	53.9

Overall, 48% of the total sample reported that they would probably stay or definitely stay until retirement. Across the rank/branch groups, reserve women reported overwhelmingly that they would probably stay or definitely stay until retirement, with 82% for reserve officers and 61% for reserve enlisted. More than one-third of the total population reported that they would definitely leave or probably leave when done with their current obligation. The rank/branch differences were substantial, with almost half of active duty enlisted women (47%) reporting that they would definitely leave or probably leave when done with their current obligation, compared to 25% of reserve enlisted women and 7% of reserve officer women.

### **18.3 Attitude Toward the Army/Army Reserve**

#### **18.3.1 Measurement**

These variables assessed whether the respondent currently had a favorable attitude toward the Army/Army reserve.

#### **18.3.2 Variable Creation**

We created two questions (items I1 and I2) to assess this domain:

- Item I1: If a good friend of yours was interested in joining the Army/Army reserve at the same rank you did, what would you tell her? Responses were: advise against it, have doubts about recommending it, strongly recommend it, and don't know.

- Item I2: Knowing what you know now, if you had to decide all over again whether to join the Army/Army reserve, what would you decide? Responses were: decide definitely not to join, have some seconds thought, decide without hesitation, and don't know.

We combined these variables into one variable, called "attitude toward the Army," by adding together the responses from the two items. We did this by giving a value of 0-2 to the three answer choices, with an unfavorable attitude having a score of 0 and a very favorable attitude having the highest value, 2. We then added these two variables together for a combined score of 0-4, with four representing a strongly favorable attitude toward the service.

The number of unanswered questions tended to increase in later sections of the questionnaire. The attitude items were in the last section of the questionnaire and so had substantial missing data: 19% on advising a friend; 11% on whether they would join if they had to do it over; and 23% on the combined variable, that is, was missing on one or the other. Our normal rule of imputing missing data was to impute only for measures in which less than half of the variables in the scale was missing. We created the attitude variable using this rule; that is, it had no imputed values because there were only two items. However, we also created a variable that imputed the value for the missing item if one of the two items was missing. In this case, we used a different method of imputation. We gave the missing item the same value as the non-missing item. This decreased the missing data rate on the attitude variable from 23% to 7%.

In our modeling, we first modeled the outcome variable attitude without imputation, then modeled the outcome variable attitude with imputation, and compared the differences. In this way, we could determine whether, by using the imputed variable, we could find similar, but a greater number of, predictors because the sample size increased by almost one-third.

### 18.3.3 Descriptive Findings

**Table 18.4. Advice to Friends About Joining the Army/Army Reserve**

Would Advise a Friend to Join	Total (n=1233)	Active Duty Enlisted (n=625)	Reserve Enlisted (n=366)	Reserve Officer (n=186)
Advise against	28.3	42.1	15.9	10.2
Doubtful recommend	31.1	34.1	27.9	26.3
Strongly recommend	40.6	23.8	56.3	63.4

Only 40% of the sample would strongly recommend to a friend that she join the Army/Army reserve, and almost 30% would advise a friend against joining. In fact, 60% of the overall sample would doubtfully recommend to a friend to join or would advise a friend against joining. Across the rank/branch groups, reserve enlisted women and reserve officer women were more than twice as likely as active duty enlisted women to strongly recommend or advise a friend to join the Army, with a clear majority of reservist strongly recommending it. Active duty enlisted women were four times as likely as reserve officer women to advise a friend against joining the Army.

**Table 18.5. Decision to Join Again If Given Chance to Revisit Decision**

Would Join All Over Again	Total (n=1356)	Active Duty Enlisted (n=684)	Reserve Enlisted (n=416)	Reserve Officer (n=197)
Definitely not	20.1	28.8	14.2	6.6
Second thoughts	38.0	42.3	32.7	33.5
Definitely join	42.0	29.0	53.1	59.9

Overall, less than half (42%) of the total sample would join the Army all over again, and more than half had second thoughts or would definitely not join. More than half of the reserve enlisted and reserve officer women would join the Army reserve all over again, compared to only 29% of the active duty enlisted women.

**Table 18.6. Combined "Attitude Toward the Army/Army Reserve"**

Attitude	Total (n=1170)	Active Duty Enlisted (n=588)	Reserve Enlisted (n=351)	Reserve Officer (n=178)
Strongly unfavorable	17.3	26.2	10.8	5.1
Unfavorable	13.3	19.2	7.7	4.5
Neutral	23.9	26.5	20.5	21.4
Favorable	10.8	7.7	13.1	14.6
Strongly favorable	34.9	20.4	47.9	54.5

Overall attitude toward the Army/Army reserve was favorable or strongly favorable (46%). The rank/branch differences were again substantial, with 69% of reserve officer women reporting a favorable or strongly favorable attitude. Active duty enlisted women were five times as likely as reserve officer women to report an unfavorable or strongly unfavorable attitude.

**Table 18.7. Imputed Attitude Toward the Army/Army Reserve**

Imputed Attitude	Total (n=1419)	Active Duty Enlisted (n=721)	Reserve Enlisted (n=431)	Reserve Officer (n=205)
Strongly unfavorable	16.1	24.0	10.2	4.9
Unfavorable	20.1	25.7	14.9	11.2
Moderate	26.2	27.5	25.3	23.9
Favorable	8.9	6.2	10.7	12.7
Strongly favorable	28.8	16.6	39.0	47.3

The imputed variable produced slightly less favorable opinions toward the Army/Army reserve, with about 5% fewer responses coded as "strongly favorable." However, the proportion of strongly unfavorable responses did not change substantially in this revision of the variable. This would suggest that those who left one of the two attitude questions blank had less favorable responses on the question they did answer than those answering both items, thus lowering the total score. It is not clear how to interpret this.

### **18.3.4 Major Differences**

The active duty enlisted group had the highest proportion of women with (1) poorer attitudes and (2) the intention to stay in the Army for a shorter time than other groups. One possible explanation for this finding is that active duty women experience more stressors than reserve women, and at a higher rate. Therefore, they might be more reluctant to stay until retirement, to stay past their current obligation, or to re-enlist. Reserve women serve for a few days a month, so their level of stress exposure is lower than that of active duty women who are exposed to the Military environment more of the time and perhaps more intensely. There is also a selection factor in that, in our sample, reservists had served longer than active duty personnel. Reservists who had the poorest attitudes and did not want to stay on the reserve had probably already left, so they were not in our sample. The findings for active duty enlisted women may be particularly associated with their current mental health and morale.

## **18.4 Morale**

### **18.4.1 Measurement**

The measures for morale were derived from items B13, B14, and B15 in the questionnaire. Current morale level was assessed for respondents (Table 18.8), their respective units (Table 18.9), and women in their respective units (Table 18.10).

### **18.4.2 Variable Creation**

For analysis purposes, the responses to these questions were reverse coded when necessary, so that high morale would have the higher, or larger, values. In this instance, the final response coding was: 1, very low; 2, low; 3, moderate; 4, high; and 5, very high. The questions asked directly: How would you rate the current level of morale in your unit, among women in your unit, or your current level of morale? These are included in the descriptive analysis as a five- item response category.

For our models, the morale variable was: How do you rate your current level of morale? In the model, the number of response categories was collapsed to make the results more interpretable. The model variable had a three-level response category: 1, very low/low; 2, moderate; and 3, high/very high.

### 18.4.3 Descriptive Findings

**Table 18.8. Respondents' Current Level of Morale**

Morale	Total (n=1512)	Active Duty Enlisted (n=771)	Reserve Enlisted (n=467)	Reserve Officer (n=210)
Very low	9.2	11.0	8.4	5.7
Low	16.1	19.9	11.8	14.8
Moderate	44.3	44.2	44.3	43.8
High	21.2	17.9	22.9	26.7
Very high	9.2	6.9	12.6	9.0

Overall, three-quarters of the respondents reported at least a moderate current level of morale. More women reported having a high or very high current level of morale (30.4%) than reported having a low or very low level of morale (25.3%).

**Table 18.9. Current Level of Morale in the Unit**

Morale	Total (n=1515)	Active Duty Enlisted (n=770)	Reserve Enlisted (n=470)	Reserve Officer (n=211)
Very low	12.1	15.3	9.4	9.5
Low	28.8	35.7	22.6	21.3
Moderate	44.8	39.7	48.7	53.1
High	11.4	6.9	14.7	14.7
Very high	2.9	2.3	4.7	1.4

Almost 60% of the total sample reported a moderate to very high level of morale in the unit overall. However, across the rank/branch groups, active duty enlisted women were the most likely to report very low/low morale in the unit (51%) overall, compared to 32% for reserve enlisted women and 31% for reserve officers women.

**Table 18.10. Current Level of Morale Among Women in the Unit**

Morale	Total (n=1510)	Active Enlisted (n=770)	Reserve Enlisted (n=468)	Reserve Officer (n=208)
Very low	9.8	13.1	7.3	6.3
Low	25.5	32.7	17.1	21.1
Moderate	50.4	44.3	57.9	55.8
High	12.72	8.9	14.9	15.9
Very high	1.59	1	2.8	.9

Almost two-thirds of respondents rated the overall morale of women in their unit as moderate or high. However, 46% of the active duty enlisted group reported the morale of women in the unit to be low or very low. About one quarter of the reserves (enlisted or officers) reported morale among women in their unit to be low.

#### **18.4.4 Group Differences**

Overall, women tended to rate the morale of both the unit and the women in the unit somewhat lower than they rated their own morale. They tended to rate the morale of women in the unit as equal to, or somewhat better than, the morale of the unit as a whole.

We believe the most reliable data is that collected on women's own morale, because individuals sometimes do not judge well how other people feel. When examining the respondent's current level of morale, all three rank/branch groups had less than one-third of women with low or very low morale. Reservist (both enlisted and officer) women reported the highest morale levels. Consistently, the active duty enlisted women had the worst outcomes, with the highest proportion reporting very low/low morale across the three measures. More than one-quarter of the active duty enlisted women reported their own morale as low or very low.

## 19.0 MULTIVARIATE MODELS

### 19.1 Modeling Procedures and Interpretation

We ran separate models for active duty enlisted and reserve women. Tables 19.1 and 19.2 summarize the statistically significant (or, in a couple of cases, approaching significant) results. Tables for each outcome variable (for example, retention) are presented separately for main and interaction effects.<sup>3</sup> Note that, in these types of analyses, the main effects for a variable are not interpreted if there is a statistically significant interaction involving that variable. Thus, the main effects and interaction effects tables are mutually exclusive.

Please see Section 2.6.3 for a general discussion of how variable creation was done and Section 2.6.5, for a description of how the models were executed. The chapters on the individual descriptive findings for control, predictor, buffer and outcome variables (Sections 3-18) give detailed information on the creation of all of the variables.

Both odds ratios and absolute odds ratios have been used in these tables. As discussed in Section 2, odds ratios have a theoretical range from 0 to positive infinity. An odds ratio of 1 indicates no effect, while odds ratios further from 1--either towards 0 or positive infinity--indicate larger effects. Very small odds ratios, close to 0, indicate large effects, but they are easy to misinterpret as small effects. For example, an odds ratio of .33 may seem small, but it indicates that the odds for the reference group is three times that for the comparison group ( $1/3 = .33$ ). To avoid confusion, we have included a column labeled "absolute odds ratio" in the tables. When the odds ratio is less than 1, the value in this column is the inverse of the odds ratio; otherwise, the value is the odds ratio.

Tables 19.1 and 19.2 provide a summary of the findings for the logistic and linear models. Subsequent tables provide odds ratios and absolute odds ratios for those variables that were statistically significant (or, occasionally, approaching statistically significant). No odds

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<sup>3</sup> For all ordered response variables, the odds ratios uses  $\text{odds}(\text{response} \leq i|x)$ . In the model with the response variable retention, the independent variable job satisfaction, job satisfaction category VERY SATISFIED (compared to VERY DISSATISFIED, which is the reference), has an odds ratio of 1.27. This means the  $[\text{p}(I5\_REC=1|VERY SATISFIED)/\text{p}(I5\_REC>1|VERY SATISFIED)]/[\text{p}(I5\_REC=1|VERY DISSATISFIED)/\text{p}(I5\_REC>1|VERY DISSATISFIED)] = 1.27$ . Also  $[\text{p}(I5\_REC \leq 2|VERY SATISFIED)/\text{p}(I5\_REC > 2|VERY SATISFIED)] / [\text{p}(I5\_REC \leq 2|VERY DISSATISFIED)/\text{p}(I5\_REC > 2|VERY DISSATISFIED)] = 1.27$  and so forth. The positive coefficient indicates that the probability of response in a lower category (here indicating more likelihood of staying) is higher for the non-reference category.]

ratios are included in the tables for interactions with continuous variables, but the findings are noted in the text.

For continuous independent variables, the odds ratio is for a one-unit change in that variable. For example, the modeled odds ratio for age modeling retention in the active group is 1.049, which indicates that the odds for women of any age are 1.049 times the odds for women 1 year younger. To obtain odds ratios for units other than one, the odds ratio is raised to the power of the number of units. For example, if we want the odds ratio for a 5-year increase in age, we raise 1.049 to the fifth power and obtain 1.27.

**Table 19.1. Variables Significantly Related to Outcomes Among Control Variables (Army Active Duty/Army Reserve)**

	Age	Young Children	Race/Ethnicity	MOS*	Rank	Marital Status	Years in Service
Retention	X/X	X/	X/	X/	X/X		X/X
Attitude (With imputations)		X/	X/X	/X		X/	
Attitude (Without imputations)		X/X	X/X	/X	/X	X/X	
Days cut back	X/		X/X			X/X	
Performance		X/			/X		X/X
BMAST (Drinking)	X/		/X				
Morale	X/X	/X			/X		/X
GHQ (Mental health)	/X		X/	/X		X/	/X

\*MOS=military occupation speciality.

**Table 19.2. Variables Significantly Related to Outcomes Among Predictor and Buffers  
(Army Active Duty/Army Reserve)**

	Job Satisfaction	Daily Hassles*	Social Support	Sleep Prob	Job Pressure	WZ/HAZ**	Sexual Assault	Work Cond	Phys Assault	Job Autonomy	Unwanted Sex Attn	Finan Strain	Inform Cowork	Sexual Coercion	Stressful Life Events
Retention	X/	X/			/X			/X		/X					
Attitude (with imputations)	X/X	X/	X/	/X		/X									
Attitude (without imputations)	X/X	X/	X/X												
Days Cut Back		/X		X/X	/X						/X		/X		
Performance	X/X				X/										
BMAST (drinking)															
Morale	X/X	X/		X/		X/X	X/	X/							
GHQ (mental health)		X/X		/X	/X		X/							/X	/X

\*Number or "bothered by."

\*\*WZ/HAZ=Served in war zone or hostile action zone.

## 19.2 Findings for Active Duty Models

### 19.2.1 Variable Modeled: Retention

For our multivariate analyses, we used I5, career intentions, with higher values representing higher retention. An odds ratio greater than 1 indicated a higher probability that respondents in the Effect cell would stay in the Army longer than respondents in the Reference cell.

**Table 19.3. Main Effects for Active Duty - Retention**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Age	N. A.	(+1 year)	1.049	1.049	<0.05
Rank	Senior enlisted	Junior enlisted	0.320	3.128	<0.01
Race	White	Other	0.192	5.211	<0.05
MOS	Administration	Medical	1.747	1.747	<0.05
Years in active duty	10+	0 to 3	0.089	11.185	<0.01
		4 to 9	0.096	10.377	<0.01
Children at home	No	Yes	1.790	1.790	<0.01
Job satisfaction	Very dissatisfied	Very satisfied	3.552	3.552	<0.01
		Somewhat satisfied	1.960	1.960	<0.01
Bothered by daily hassles	Least	A lot/extreme	0.580	1.724	<0.05

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

#### 19.2.1.1 Control Variables

- Older subjects reported that they were more likely to stay in longer than younger subjects. For a 5-year difference in age, the odds ration is 1.27.
- Senior enlisted women were more likely to report they would stay in longer than junior enlisted women.

- Subjects categorized as Other were less likely to say they would stay in than White subjects.
- Subjects categorized as Medical were more likely to say they would stay in longer than subjects categorized as Administration.
- Subjects who had been in the Army 10 or more years were more likely to report that they would stay in the Army than subjects who had been in the active duty Army for 0-3 and 4-9 years.
- Subjects with children at home were more likely to report they would stay in than those without children at home.

#### **19.2.1.2 Predictors, Buffers, and Interactions**

- The odds ratios for job satisfaction were properly ordered. That is, subjects who were very satisfied were more likely to report a higher probability of staying in than subjects who were very dissatisfied; the probability of staying in (longer) for those who were somewhat satisfied and somewhat dissatisfied was in between the probabilities for those who were very satisfied and very dissatisfied.
- The odds ratios for being troubled or bothered by daily hassles were also ordered. Those reporting not being bothered by hassles were the most likely to stay in (longer) than those reporting being bothered by such hassles. The probabilities for those reporting being moderately bothered by hassles were in between those reporting not being bothered by hassles and those reporting being bothered a lot by hassles, in terms of how long they expected to stay in. Those who were bothered a lot were the most likely to report they were likely to leave (soon).

#### **19.2.2. Variable Modeled: Attitude Toward the Army (with Imputations)**

Attitude is a combination of I1 and I2, which asked whether you would advise a friend to join the Army and, if you had it to do over again, whether you would join again. This version of the variable includes imputation of one of these item from the other, if the other is missing. This is equivalent to only using one of the two items if the other is missing. We did this to increase the sample size for the modeling, because we expected that this would increase the significant and meaningful predictors. This did not prove to be the case, however. An odds ratios greater than 1 indicated a higher probability of a high score (good attitude).

**Table 19.4. Main Effects for Active Duty - Attitude Toward Army with Imputations**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Marital Status	Married	Separated, Divorced	2.029	2.029	<0.01
Race	White	Blacks	0.396	2.523	<0.01
Job Satisfaction	Very Dissatisfied	Very satisfied	4.347	4.347	<0.01
		Somewhat dissatisfied	2.514	2.514	<0.01

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

**Table 19.5a. Interaction Effects for Active Duty - Attitude Toward Army (with Imputations)  
Children\*Social Support**

Children Children*Social Support	Social Support	Odds Ratio	Absolute Odds
No	Low	1.00	1.00
No	Medium/high	1.40	1.40
Yes	Low	0.26	3.82
Yes	Medium/high	1.28	1.28

**Table 19.5b. Interaction Effects - Attitude with Imputations  
Children\*# Daily Hassles**

Children	Number of Daily Hassles	Odds Ratio	Absolute Odds Ratio
No	0-8	1.00	1.00
No	9-16	0.59	1.70
No	17+	0.24	4.10
Yes	0-8	0.26	3.81
Yes	9-16	0.25	4.01
Yes	17+	0.23	4.26

### 9.2.2.1 Control Variables

- Women who were separated or divorced had a better attitude than married women toward the Army.
- Whites reported a better evaluation of Army life than Blacks.

### 9.2.2.2 Predictors, Buffers, and Interactions

- Job satisfaction was properly ordered: The greater the job satisfaction, the better the attitude toward the Army.
- Interaction of having children and satisfaction with social support (interpreted together because of interaction). Subjects who have children under 18 and low satisfaction with social support had the worst attitude. Subjects with no children under 18 (whether social support was high or low) and subjects with children under 18 with high satisfaction with social support all had about the same attitude.
- Interaction of women with young children at home and total number of daily hassles. Subjects with no young children at home and low or moderate hassles had the best attitude and are similar to each other. All other subjects (for example, women with children under 18 at home and women with high hassles) had worse attitudes and are similar to each other. (This is probably a floor-ceiling effect.)

### 19.2.3. Variable Modeled: Attitude Toward the Army (without Imputations)

This is the same variable as used in the previous subsection; however, because we did not do imputations, the sample size for the model was notably less. Findings were similar for the two attitude variables. Odds ratios greater than 1 indicated a higher probability of a high score.

**Table 19.6. Main Effects for Active Duty - Attitude Toward Army without Imputations**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Marital Status	Married	Never married	2.933	2.933	<0.05
		Separated, divorced	2.843	2.843	<0.05
Race	White	Blacks	0.333	3.007	<0.01
		Others	0.345	2.899	<0.05
Job Satisfaction	Very dissatisfied	Very satisfied	8.714	8.714	<0.01
		Somewhat satisfied	2.742	2.742	.0886

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

**Table 19.7a. Interaction Effects for Active Duty - Attitude Toward Army without Imputations  
Children\*Social Support**

Children Children*Social Support	Social Support	Odds Ratio	Absolute Odds Ratio
No	Low	1.00	1.00
No	Medium/High	1.67	1.67
Yes	Low	0.24	4.10
Yes	Medium/High	1.68	1.68

**Table 19.7b. Interaction Effects for Active Duty - Attitude without Imputations**  
**Children\*# Daily Hassles**

Children	# Daily Hassles	Odds Ratio	Absolute Odds Ratio
No	0-8	1.00	1.00
No	9-16	0.84	1.19
No	17+	0.21	4.85
Yes	0-8	0.24	4.10
Yes	9-16	0.24	4.22
Yes	17+	0.23	4.35

**19.2.3.1 Control Variables**

- Subjects who were never married, separated, or divorced were similar to each other and had higher scores than married people.
- Whites had a better evaluation of Army life than Blacks or Others, and were similar to each other.

**19.2.3.2 Predictors, Buffers, and Interactions**

- Job satisfaction was properly ordered. Subjects who were very satisfied had better attitudes.
- Interaction of having children at home with satisfaction with social support. Subjects who had children at home and low satisfaction with social support had lower scores than the other three groups (which were similar to each other).
- Interaction of having children with the total number of daily hassles. Subjects who had no children under 18 and were in the two lower categories of daily hassles (either 0-8 or 9-16) had the highest attitude scores and were similar. The other four groups (with children and with more hassles) had lower scores and were similar.

**19.2.4. Variable Modeled: Number of Days Cut Back on Activities**

This variable was for the number of days that the respondent did not feel up to doing her usual level of activities. Odds ratios greater than 1 indicate a higher probability of more cut back days.

**Table 19.8. Main Effects for Active Duty - Days Cut Back on Activities**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Age	N. A.	(+1 year)	1.10	1.100	<0.05
Marital Status	Married	Never married	0.424	2.357	<0.01
Race	White	Blacks	0.336	2.981	<0.01
		Hispanics	0.371	2.698	<0.05
Sleep Score	N.A.	(1 pt change)	1.049	1.049	0.0722

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

**19.2.4.1 Control Variables**

- Older subjects cut back on more days (OR=1.61 for 5 years difference) than younger individuals.
- Married subjects cut back more days than those never married.
- Whites cut back more days than Blacks or Hispanics.

**19.2.4.2 Predictors, Buffers, and Interactions**

- Those with higher sleep scores, that is, more sleep problems, cut back more days. (A ten-point change is associated with an odds ratio of 1.63.)

**19.2.5 Variable Modeled: Performance**

This refers to level of performance and is a scale of a number of variables. The descriptive data is presented in the section on performance, with higher values representing higher performance. Odds ratios greater than 1 indicate a higher probability of higher performance.

**Table 19.9. Main Effects for Active Duty - Performance**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Years in active duty	10+	0 to 3	0.402	2.485	<0.05
Job Pressure	0 to 7	8 to 14	7.794	7.794	<0.01
		15+	8.867	8.867	<0.01

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

**Table 19.10. Interaction Effects for Active Duty - Performance  
Children\*Job Satisfaction**

Children	Job Satisfaction	Odds Ratio	Absolute Odds Ratio
No	Very dissatisfied	1.00	1.00
No	Somewhat dissatisfied	5.64	5.64
No	Somewhat satisfied	6.05	6.05
No	Very satisfied	3.67	3.67
Yes	Very dissatisfied	0.30	3.32
Yes	Somewhat dissatisfied	7.61	7.61
Yes	Somewhat satisfied	3.63	3.63
Yes	Very satisfied	5.05	5.05

**19.2.5.1 Control Variables**

- The number of years in the Army had an ordered relationship with performance. Being in the Army 0-3 years had the lowest probability of higher performance and 10 or more years had the highest level of performance.

**19.2.5.2 Predictors, Buffers, and Interactions**

- A higher score on feeling a lot of job pressure (both scores of 8-14 and 15+ which were similar) had an increased probability of higher performance than 0-7. Selection factors may influence this relationship: Those who are put into positions of high responsibility and/or complex work may feel more pressure in their jobs but,

nonetheless, work hard to do well. Individuals who expect more of themselves are also likely to perceive high pressure but perform well.

- Interaction of having children at home and job satisfaction. Subjects who had children at home and were very dissatisfied with their job had the lowest probability of having high performance followed by subjects who had no children at home and were very dissatisfied. The rest of the sample had a higher and fairly similar probability of having better performance.

### 19.2.6 Variable Modeled: BMAST Score

This was the drinking problems scale. Odds ratios greater than 1 indicate a higher probability of a high drinking problem score.

**Table 19.11. Main Effects for Active Duty - BMAST, Drinking Problems**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Age	N. A.	(+1 year)	0.905	1.104	<0.01
Physical Assault	No	Yes	2.232	2.232	<0.01

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

#### 19.2.6.1 Control Variables

- Older age was associated with lower drinking problem scores. Odds ratio = 1.64 for 5 years difference.

#### 19.2.6.2 Predictors, Buffers, and Interactions

- Those who had been physically assaulted had more drinking problems than those who had not.

### 19.2.7 Variable Modeled: Morale

This was a single item asking about the subject's own morale, with higher scores reflecting higher morale. Odds ratios greater than 1 indicate a higher probability of high morale.

**Table 19.12. Main Effects for Active Duty - Morale**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Sleep Score	N. A.	(1 pt)	0.98	1.020	<0.01
Job Satisfaction	Very dissatisfied	Very satisfied	24.570	24.570	<0.01

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

**Table 19.13. Interaction Effects for Active Duty - Morale  
Bothered/Hassles\*Lifetime Sexual Assault**

Bothered/Hassles	Sexual Assault	Odds Ratio	Absolute Odds Ratio
No hassles	No	1.00	1.00
No hassles	Yes	0.69	1.45
Moderate amount	No	0.79	1.26
Moderate amount	Yes	0.14	6.96
Lot	No	0.51	1.96
Lot	Yes	0.06	15.80

#### 19.2.7.1 Control Variables

- None except an interaction with a predictor.

#### 19.2.7.2 Predictors, Buffers, and Interactions

- A decrease in the number of sleep problems is associated with improved morale. A ten-point decline in sleep problems is associated with an odds ratio of 1.21 which is worth noting since the range for sleep score is 0-100.
- For job satisfaction, those who were very satisfied were substantially more likely to have high morale than those who were very dissatisfied.

- For subjects who responded “yes” to having served in a war zone, morale increased with age (odds ratio for a 5-year increase in age is 1.19). For subjects who responded “no” to having served in a war zone, morale decreased with age (odds ratio for a 5-year decrease in age is 1.61). (Data not tabled.)
- Women who had been sexually assaulted and who also reported being bothered a moderate amount or a lot by daily hassles also reported lower morale than all others groups who were similar. (Odds ratio about 7.)

### 19.2.8 Variable Modeled: GHQ

This is a mental health scale, the General Health Questionnaire. Please note that, unlike the standard presentation of GHQ and the presentation of GHQ in the descriptive chapter, for modeling purposes, the higher the score, the worse the mental health. The GHQ was treated as a continuous variable, and linear rather than logistic regression was used.

**Table 19.14. Main Effects for Active Duty - GHQ, Mental Health**

Variable	Reference Category	Effect	Mean Difference	P
# Daily Hassles	0-8	17+	5.983	<0.01
		9-16	2.075	<0.05
Marital Status	Married	Never married	1.700	<0.05

Note: An odds ratio of less than 1 indicates that the category displayed in column 3 has a lower value on the outcome variable than the reference category.

**Table 19.15a. Interaction Effects for Active Duty - GHQ  
Marital Status\*Sexual Assault**

Marital Status	Sexual Assault	Mean Difference
Married	No	0.00
Married	Yes	3.84
Separated/divorced	No	1.35
Separated/divorced	Yes	4.91
Never married	No	1.70
Never married	Yes	3.59

**Table 19.15b. Interaction Effects for Active Duty - GHQ  
Race/Ethnicity Status\*Sexual Assault**

Race/Ethnicity	Sexual Assault	Mean Difference
White	No	0.00
White	Yes	3.84
Black	No	-0.69
Black	Yes	4.65
Hispanic	No	0.42
Hispanic	Yes	2.09
Other	No	-.15
Other	Yes	4.55

**19.2.8.1 Control Variables**

- Women who had never married had higher GHQ scores than married women.

**19.2.8.2 Predictors, Buffers and Interactions**

- The total number of daily hassles was fully ordered. Those with the lowest hassles (0-8) had the lowest mean on GHQ, followed by those with 9-16 hassles. Those with 17+ daily hassles had the highest mean on the GHQ.
- Marital status by sexual assault. Those who were sexually assaulted had consistently higher GHQ scores than those who had not. Married women had the lowest scores among those who had been assaulted, with those never married and those divorced/separated about equal. The main effect for marital status and the effect of the interaction were small compared to the effect for sexual assault.
- Race/ethnicity by sexual assault. Again, those who were sexually assaulted had higher GHQ scores. Compared to the effects of sexual assault, the effects of race/ethnicity were small.

**19.3 Findings for Reserve Models**

**19.3.1 Variable modeled: Retention**

Odds ratios greater than 1 indicate a higher probability of staying in.

**Table 19.16. Main Effects for Reserve - Retention**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Age	N. A.	+1 year	1.050	1.050	<0.01
Years in reserve	10+	0-3	0.197	5.066	<0.01
		4-9	0.213	4.704	<0.01
Autonomy	High autonomy	Low autonomy	0.323	3.093	<0.01
		Medium autonomy	0.575	1.739	<0.05
Working Conditions	Not problematic	Very problematic	0.218	4.581	<0.01

**Table 19.17. Interaction Effects for Reserve - Retention  
Rank\*Job Pressure**

Rank	Job Pressure	Odds Ratio	Absolute Odds Ratio
Officer	0-7	1.00	1.00
Officer	8-14	1.08	1.08
Officer	15+	0.96	1.04
Senior enlisted	0-7	2.61	2.61
Senior enlisted	8-14	1.19	1.19
Senior enlisted	15+	0.09	11.13
Junior enlisted	0-7	0.45	2.20
Junior enlisted	8-14	0.70	1.42
Junior enlisted	15+	0.89	1.13

**19.3.1.1 Control Variables**

- Older subjects were more likely to say they would stay longer. A 5-year difference is associated with an odds ratio of 1.28.
- Subjects who had been in the reserve for 10 or more years were more likely to stay than those with 0-3 or 4-9 years (who had a similar probability of staying).

**19.3.1.2 Predictors, Buffers and Interactions**

- The level of job autonomy was fully ordered; that is, the highest levels of autonomy were associated with the highest probability of staying in. Those with the lowest autonomy scores had the lowest likelihood of staying in.
- Working conditions were also properly ordered. Those reporting the worst working conditions had a significantly lower probability of staying than those with the best working conditions. Mid-level scores on working conditions were slightly (although not significantly) associated with a lower probability of staying in than scores of those reporting the best working conditions.
- Rank and job pressure. The odds for most groups were the same. The exception was that among senior enlisted; those with the least job pressure were more likely to stay in (odds ratio=2.61), and those with the most job pressure were less likely to stay in (odds ratio=11.82), compared to other groups.

**19.3.2 Variable Modeled: Attitude Toward the Army Reserve (with Imputations)**

Odds ratios greater than 1 indicate a higher probability of a high score (good attitude).

**Table 19.18. Main Effects for Reserve - Attitude Toward Army Reserve with Imputations**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Race	White	Other	6.715	6.715	<0.01
Hostile	No	Yes	0.250	3.998	<0.01
Sleep Score	N.A.	1 pt	0.984	1.016	<0.05

**Table 19.19. Interaction Effects for Reserve - Attitude Toward Army Reserve with Imputations Occupation\*Job Satisfaction**

Occupation	Job Satisfaction	Odds Ratio	Absolute Odds Ratio
Administration	Very dissatisfied	1.00	1.00
Administration	Somewhat dissatisfied	6.17	6.17
Administration	Somewhat satisfied	16.44	16.44
Administration	Very satisfied	34.81	34.81
Supply	Very dissatisfied	15.80	15.80
Supply	Somewhat dissatisfied	17.29	17.29
Supply	Somewhat satisfied	12.43	12.43
Supply	Very satisfied	16.61	16.61
Medical	Very dissatisfied	4.01	4.01
Medical	Somewhat dissatisfied	3.86	3.86
Medical	Somewhat satisfied	6.36	6.36
Medical	Very satisfied	90.92	90.92
Communications	Very dissatisfied	2.56	2.56
Communications	Somewhat dissatisfied	14.44	14.44
Communications	Somewhat satisfied	33.12	33.12
Communications	Very satisfied	55.15	55.15

**19.3.2.1 Control Variables**

- Subjects responding “other” for race were more likely to have a good attitude than Whites.
- Subjects who reported having served in a hostile area (war zone or hostile action zone) had worse attitudes than those who had not reported service in a hostile action zone.

**19.3.2.2 Predictors and Buffers**

- Fewer sleep problems were associated with a higher probability of a good attitude. A ten-point increase in the sleep score is associated with an odds ratio of 1.18.

- Type of occupation by job satisfaction. Although the interactions were significant, they seem to be the result of ceiling effects. The higher job satisfaction variable is associated with a higher probability of a good attitude. In addition, those in jobs in the Administration MOS were less likely to have a good attitude than those with jobs in either the Medical or Supply MOS, while attitude for these two occupations were, overall, pretty close to each other.

### 19.3.3 Variable Modeled: Attitude Toward the Army (without imputations)

Odds ratios greater than 1 indicate a higher probability of a high score, good attitude.

**Table 19.20. Main Effects for Reserve - Attitude Toward Army Reserve without Imputations**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Rank	Officers	Senior enlisted	2.611	2.611	<0.01
Race	White	Other	6.258	6.258	<0.01
Occupation	Administration	Supply	13.452	13.452	<0.05
		Medical	4.789	4.789	0.0625
		Communications	13.406	13.406	<0.05
Children at Home	No	Yes	4.226	4.226	<0.05
Job Satisfaction	Very dissatisfied	Very satisfied	123.363	123.363	<0.01
		Somewhat satisfied	23.804	23.804	<0.01
		Somewhat dissatisfied	11.507	11.507	<0.05

**Table 19.21. Interaction Effects for Reserve - Attitude Toward Army Reserve without Imputations**  
**Marital Status\*Social Support**

Marital Status	Social Support	Odds Ratio	Absolute Odds Ratio
Married	Low	1.00	1.00
Married	Medium/high	5.99	5.99
Separated/divorced	Low	0.50	1.99
Separated/divorced	Medium/high	7.03	7.03
Never married	Low	1.17	1.17
Never married	Medium/high	1.21	1.21

**19.3.3.1 Control Variables**

- Senior enlisted women were more likely to have a better attitude than officers.
- Those responding “other” to race were more likely to have a high score than Whites.
- Type of occupation. Those in Supply and Communications occupations were all more likely to have a better attitude than those in Administration. Medical occupations approach significance for having a better attitude than Administration.
- Those with children under 18 at home have a better attitude than those without children at home.

**19.3.3.2 Predictors, Buffers and Interactions**

- Job satisfaction was properly ordered. Those who were very satisfied were most likely to have the best attitude scores; those who were very dissatisfied had the worst scores.
- Marital status by satisfaction with social support. Of the six groups, subjects who were married or separated with high social support had the highest scores, with about equal probabilities. The other groups—those with low social support or those who are divorced or widowed--had lower or about equal probabilities of high scores.

### 19.3.4 Variable Modeled: Number of Days Cut Back on Activities

Odds ratios greater than 1 indicate a higher probability of more days cut back.

**Table 19.22. Main Effects for Reserve - Number of Days Cut Back on Activities**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Race	White	Black	0.490	2.030	<0.05
		Hispanic	0.170	5.810	<0.05
Number of Hassles	0-8	17+	5.090	5.090	<0.01
Sleepscore	N.A.	1 pt	1.120	1.120	<0.01
Unwanted Sexual Attention	No	Yes	7.390	7.390	<0.05

**Table 19.23. Interaction Effects for Reserve - Days Cut Back  
Marital Status\*Job Pressure**

Marital Status	Job Pressure	Odds Ratio	Absolute Odds Ratio
Married	0-7	1.00	1.00
Married	8-14	0.71	1.40
Married	15+	2.66	2.66
Separated/divorced	0-7	0.41	2.44
Separated/divorced	8-14	0.50	2.01
Separated/divorced	15+	37.31	37.71
Never married	0-7	0.43	2.32
Never married	8-14	0.37	2.69
Never married	15+	*	*

\*Cannot be estimated due to small sample size.

#### 19.3.4.1 Control Variables

- Whites cut back more days than Blacks and Hispanics; Hispanics cut back the fewest days.

### 19.3.4.2 Predictors, Buffers and Interactions

- Total number of daily hassles was properly ordered; that is, more hassles are associated with more days cut back.
- More sleep problems were associated with more days cut back. Odds ratio for a 10-point increase=3.17.
- Those who reported having received significant unwanted sexual attention cut back more days.
- Marital status by job pressure. Most of the groups were similar except for separate/divorced women with high job pressure, who have a much higher probability of cutting back more days.

### 19.3.5 Variable Modeled: Performance

Odds ratios greater than 1 indicate a higher probability of above average performance.

**Table 19.24. Main Effects for Reserve - Performance**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Rank	Officer	Junior enlisted	0.457	2.190	<0.05
Job Satisfaction	Very dissatisfied	Very satisfied	4.013	4.013	<0.01
		Somewhat satisfied	1.920	1.920	<0.05
Financial strain	0-1 (low)	5+ (high)	0.054	18.479	<0.01

**Table 19.25. Interaction Effects for Reserve - Performance  
Years in Service\*Informational Coworker**

Years in Service	Informational Coworker	Odds Ratio	Absolute Odds Ratio
10+	Low	1.00	1.00
10+	Medium	0.72	1.39
10+	High	1.00	1.00
4-9	Low	0.55	1.80
4-9	Medium	0.64	1.57
4-9	High	1.12	1.12
0-3	Low	0.10	9.58
0-3	Medium	1.05	1.05
0-3	High	1.58	1.58

**19.3.5.1 Control Variables**

- Officers were more likely to have higher performance than junior enlisted women.

**19.3.5.2 Predictors, Buffers and Interactions**

- Job satisfaction was ordered, that is, those who were very satisfied had the highest probability of the best performance.
- High levels of financial strain were associated with poorer performance.
- Years in the reserve by having an informational coworker. The one group that behaved much differently from the rest included those with only 0-3 years in the reserve and little informational support from coworkers. These individuals had a much lower probability of high performance.

**19.3.6 Variable Modeled: BMAST Score**

Odds ratios greater than 1 indicate a higher probability of a high drinking problem score.

**Table 19.26. Main Effects for Reserve - BMAST Score**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Race	White	Black	2.640	2.640	<0.01
		Other	5.820	5.820	<0.01

**19.3.6.1 Control Variables**

- Those categorized as Black or Other were more likely to have high BMAST scores than those categorized as White.

**19.3.7 Variable Modeled: Morale**

Odds ratios greater than 1 indicate a higher probability of high.

**Table 19.27. Main Effects for Reserve - Morale**

Variable	Reference Category	Effect	Odds Ratio	Absolute Odds Ratio	P
Years in reserve	10+	0-3	2.810	2.810	<0.05
Children at home	No	Yes	0.270	3.760	<0.05

**Table 19.28. Interaction Effects for Reserve - Morale  
Rank\*Job Satisfaction**

Rank	Job Satisfaction	Odds Ratio	Absolute Odds Ratio
Officer	Very dissatisfied	1.00	1.00
Officer	Somewhat dissatisfied	20.70	20.70
Officer	Somewhat satisfied	395.44	395.44
Officer	Very satisfied	2465.13	2465.13
Senior enlisted	Very dissatisfied	4.80	4.80
Senior enlisted	Somewhat dissatisfied	6.11	6.11
Senior enlisted	Somewhat satisfied	424.11	424.11
Senior enlisted	Very satisfied	437.03	437.03
Junior enlisted	Very dissatisfied	0.38	2.66
Junior enlisted	Somewhat dissatisfied	39.65	39.65
Junior enlisted	Somewhat satisfied	301.87	301.87
Junior enlisted	Very satisfied	812.41	812.41

**19.3.7.1 Control Variables**

- Years in the reserve were properly ordered. Those with 10 or more years had the lowest probability of high morale, followed by those with 4-9 years and then 0-3 years. The difference between 10+ and 0-3 is significant.
- Those having children at home under age 18 had a lower probability of high morale than those with no young children at home.

**19.3.7.2 Predictors, Buffers and Interactions**

- Job satisfaction by rank was properly ordered. Those with the most job satisfaction had the best morale and those with the worst job satisfaction had the worst morale. Although there was a rank-by-job satisfaction interaction, the effect of interaction with rank was very small. The odds ratios between very dissatisfied and very satisfied were largest for officers and junior enlisted women, while the odds ratio between very dissatisfied and very satisfied was smaller for senior enlisted women.
- Age by serving in a war zone. For those who did not serve in a war zone, the association between age and morale was close to zero; that means that morale did not

vary much by age for those who did not serve in a war zone. For those who served in a war zone, older age was associated with higher probabilities of a high morale. The odds ratio for a 5-point change in age is 2.07. (Data not tabled.)

### 19.3.8 Variable Modeled: GHQ

The GHQ was treated as a continuous variable, and linear rather than logistic regression was used.

**Table 19.29. Main Effects for Reserve - GHQ**

Variable	Reference Category	Effect	Mean Difference	P
Job Pressure	0-7	15+	1.702	<0.01
Stressful Life Events	Lowest (2-38)	Highest (75.5+)	1.440	<0.01

**Table 19.30a. Interaction Effects for Reserve - GHQ  
Occupation\*Bothered/Hassles**

Occupation	Bothered/Hassles	Mean Difference
Administration	No hassles	0.00
Administration	Moderate amount	0.66
Administration	Lots	4.23
Supply	No hassles	0.20
Supply	Moderate amount	-1.58
Supply	Lots	5.91
Medical	No hassles	0.35
Medical	Moderate amount	0.20
Medical	Lots	5.98
Communications	No hassles	-0.42
Communications	Moderate amount	-0.52
Communications	Lots	6.57

**Table 19.30b. Interaction Effects for Reserve - GHQ  
Years in Service\*Bothered/Hassles**

Years in Service	Bothered/Hassles	Mean Difference
0-3	No hassles	0.00
0-3	Moderate amount	0.66
0-3	Lots	4.23
4-9	No hassles	0.39
4-9	Moderate amount	1.28
4-9	Lots	2.55
10+	No hassles	0.97
10+	Moderate amount	2.04
10+	Lots	2.80

**19.3.8.1 Control Variables**

- All significant control variables were found in interactions

**19.3.8.2 Predictors and Buffers**

- Those with the highest level of stressful life events had higher GHQ scores than those with the lowest level.
- Those with the highest score on stressful life events had higher GHQ scores than those with lower scores.
- There was an interaction between occupation and how much daily hassles troubled or bothered subjects. However, the main effect for daily hassles overwhelmed the interaction. Subjects who were bothered "a lot" by daily hassles were significantly more likely to have higher GHQ scores.
- There was an interaction of years in the reserve and how much the person was troubled or bothered by daily hassles. The main effect for daily hassles was fully ordered, with being troubled "a lot" consistently having the highest mean. With 10 or more years in the reserve, the effect of daily hassles on GHQ was the largest, while among those with fewer years in the reserve, the effect was smaller and fairly equal across the number of years.
- Overall, experiencing sexual coercion increases GHQ score substantially. GHQ scores decrease with age; however, there is an interaction such that the amount GHQ scores decrease with age depends on whether the woman experienced sexual coercion. (Data not tabled.)

- GHQ scores increase with increases in sleep problem scores. Having a larger number of daily hassles, however, exacerbates this effect. That is, there is an interaction such that the GHQ scores do not increase as much with increased sleep scores for those with low levels of daily hassles. For those with medium or high levels of daily hassles, however, GHQ scores increase much more with increases in sleep scores. (Data not tabled).

## **19.4 Summary**

### **19.4.1 Control Variables**

The control variables were comprised of age, race/ethnicity, occupation, rank, marital status, school aged children living at home, and years served in the Army/Army reserve. We found that the control variables were all related to at least several outcomes (see Table 19.1). There did not appear to be any consistent theme in these relationships, however. Demographic and military characteristic factors that influence retention may be different from those that influence mental health or drinking. Race/ethnicity was the control variable that significant in the largest number of models, with marital status coming second. Age, years served, and children at home, however, seemed to be more likely to affect mental health and performance (days cut back, performance, BMAST, morale, and GHQ) than race, occupation, and rank.

### **19.4.2 Predictors and Buffers**

The most impressive finding was the importance of job satisfaction, which was strongly related to many of the outcomes both for the active duty enlisted and reserve groups. In addition, it was often fully ordered; that is, those with the most job satisfaction typically had the best outcomes and those with the least job satisfaction had the worst outcomes, with the other levels of satisfaction in between. The other predictors that had an effect in the greatest number of models were daily hassles, sleep problems, job pressure, and social support. Having a large number of daily hassles or being bothered by them a lot, and having sleep problems were consistently associated with poorer outcomes. Having low social support also resulted in poorer outcomes and seemed to amplify the problems associated with having school-aged children living at home. Higher job pressure was generally associated with poorer outcomes, except that it was also associated with better performance for active duty enlisted personnel. Possible reasons for this are discussed in the section on active duty models.

Other predictors found to have an impact in more than one model included service in a war zone or hostile action zone, sexual assault, and working conditions. Serving in a war zone or hostile action zone had a mixed relationship with outcomes. Sexual assault and poor working conditions were associated with poorer outcomes.

Seven other variables were found to be associated with poorer outcomes in one model: physical assault, low job autonomy, unwanted sexual attention, financial strain, lack of an informational coworker, sexual coercion, and a high number of stressful life events.

### **19.4.3 Active Duty Versus Reserve**

One pervasive finding was that active duty enlisted women tended to have far and away the worst outcomes. Reserve officers tended to have the best outcomes, and reserve enlisted women tended to have outcomes in between that were, in most cases, closer to outcomes for active duty enlisted women. The differences between active duty enlisted women and reserve enlisted women probably reflect, at least in part, the amount of time spent under the stresses and strains of military service. Differences between officers and enlisted personnel undoubtedly reflect socio-demographic differences (salary, education) between the groups, variables that were not included in the models because of their high correlation with rank. It may well be the case that some of the differences are the result of power differentials; that is, more than enlisted personnel, women officers are likely to have more autonomy and to be less often under close scrutiny.

In the models, active duty and reserve personnel seemed to share many of the same predictors. Race/ethnicity, marital status, age, years in service, job satisfaction, and sleep problems were important predictors for both groups. For the active duty enlisted group, however, marital status, children at home, and daily hassles were more important predictors than they were for reservists. For reservists, rank and job pressure seemed to be more important predictors than they were for active duty enlisted women. It is important to remind the reader that the importance of rank for reservists may be the nature of the data set. For the reservist models, three groups were compared: junior enlisted, senior enlisted, and officers. For the active duty enlisted models, we only had two groups: junior enlisted and senior enlisted. Therefore, the greater number of differences found for rank among reservists may be due to the enlisted/officer differences that were not examined for the active duty enlisted group.

## 20.0 SUMMARY

### 20.1 Study Background and Procedures

This was a comprehensive study of stressors, buffers, and outcomes of women soldiers. It gathered data on reserve women as well as active duty enlisted women. The study includes not only descriptive data of stressors, buffers, and outcomes, but also multivariate analyses to help provide insight into the relationships between stressors, buffers, and outcomes.

Data were gathered both by the use of focus groups and by the use of questionnaires. The questionnaire data were gathered in person rather than through mail surveys. Women soldiers from particular units were asked by their superiors to report to the questionnaire administration site, where a study representative explained the nature of the study and asked the women to participate. We were unable to obtain from our Army liaisons any figures on how many women were in a unit and how many women were absent for reasons unrelated to the study (that is, they were TDY, ill, or could not be released from their particular duties, etc.). Thus, we are unable to report response rates for the study. We did find, however, that almost all of the women who reported to hear our description of the survey stayed to fill out a questionnaire. Our final sample size was 848 active duty women and 709 reservist women. Survey interviews averaged about 1 hour and were self-administered.

Prior to administering the survey questionnaires, information from focus groups was gathered to inform our questionnaire development and to ensure that we included questions that asked about the stressors Army women found to be most troubling. Although a relatively small number of women ( $n=71$ , including those filling out the focus group questionnaire) participated in the focus groups, there were a number of themes that repeated themselves in these groups. One important theme was that men treated them as though they were unwanted, inferior, or shouldn't be there, and that they had to work twice as hard as men to be considered equal; and that any mistake or weakness was proof that women shouldn't be soldiers. A second theme was that the weight and taping standards were stringent and that the process of taping was degrading. Some Black women felt the standards did not appropriately take into account their different body structure. Other topics that commonly arose were the problems women had resulting from: poor pay, difficulty getting child care and time off to take care of sick children, and being in an environment in which getting pregnant was viewed negatively. Focus group participants said that some men thought women soldiers got pregnant just to get out of

unpleasant duties; also, women soldiers were often forced to engage in inappropriately strenuous activities during pregnancy or immediately after birth. Finally, the possibility of deployment was an overriding stressor, particularly for women with families.

The data garnered from our survey questionnaire covered a much broader range of topics than could be covered in a focus group. Questionnaires also provided anonymity. The descriptive data in this report provides a broad view of the range of stressors and buffers to which women were exposed, as well as information about the extent of undesirable outcomes, the quality of performance, and the intention to stay in the Army. Data are provided by rank/branch, so that the reader may determine how stressors are distributed across the rank/branch groups. Without such information, it is difficult to know where to focus interventions.

## **20.2 Descriptive Findings**

Overall, there were many indicators that suggested that women were functioning well. Few women reported many sick days, drug use, or problems with alcohol use. Performance was good overall. Three-fourths of the women rated their morale as moderate or better. However, our data suggested that there were some problems. Sexual harassment and discrimination are still major factors in many of these women's lives. Enlisted women have substantial financial pressures, and the women overall tended to have high levels of sleep problems and high scores on our mental health measure. The findings from the descriptive analyses are summarized in the text that follows.

### **20.2.1 Background Variables**

- The mean *age* of our enlisted women was around 30 (27 for active duty and 33 for reserves) and around 40 for reserve officers.
- One-fourth to one-third of our enlisted sample had a high school *education* and 44% had some college; almost all of our reserve officers had some postgraduate work.
- Most of our active duty enlisted women *had been in the Army* 1 -5 years (60%). Reserve enlisted women were more likely to have been in the reserves for 3-10 years (44%) and reserve officers, 6 years or longer (80%).
- The majority of our active duty enlisted women were junior *enlisted* personnel (60%), while reserve enlisted women were about equally junior enlisted personnel and senior enlisted personnel. The ranks of our reserve officers were well distributed from O1 to O6.

- Almost half of our active duty enlisted women were *Black*, and slightly more than half of our reserve enlisted women were Black. About half of our reserve officers were *White* and a third were Black.
- About half of our women were married, and about 40 percent *had children under age 18 living in a home with them*.
- *Our sample differed somewhat from the female Army population overall*, primarily in occupation. A somewhat greater proportion of our sample was in administration, medical, and supply occupations than the overall Army population from which they were drawn. We had a smaller proportion of White female reservists (32%) than there were among female Army reservists overall (50%).

### 20.2.2 Job Satisfaction and Job Stressors

- Most women did not believe their *working conditions* (for example, improper equipment or a physically noxious work environment) were problematic, and only 11% reported their *job to be high pressure*.
- About half rated their job as having a medium level of *autonomy* (with about equal proportions reporting high and low autonomy).
- *Job satisfaction* was assessed for the women's current Army job. More than one-third of our sample reported being dissatisfied with their job assignment; 21% reported being very satisfied; and 42% reported being somewhat satisfied.
- The women's perception of the *quality of their supervisors* was also examined. Almost half the sample rated the quality of their supervision as fair; more than a quarter rated it as good; and 30 percent rated it as poor.
- More than half of our sample engaged in *stress-reducing activities*, like sports and hobbies, 3 hours or less in the average week.
- Forty percent of our sample worked in groups that *consisted of mostly or all men*, another factor that was previously found to be stressful for women.

### 20.2.3 Health

- A substantial majority of the women reported that they were in *very good or excellent health* and had no blood pressure problems.
- The majority of women in our sample reported significant *sleep problems*. This included problems that might be directly related to work duties, such as not being able to get enough sleep, and other types problems that might be stress-related, such as not being able to get sleep or to sleep through the night.
- One-fifth of our sample were very troubled with difficulties trying to stay within the *Army's weight standards*.

- Almost half of the women reported negative attitudes by their coworkers when they became *pregnant*.
- A third of our women reported moderate or substantial problems from having to perform *strenuous duties late in their pregnancy*.
- More than half of the women who had gotten pregnant reported moderate or substantial problems from having to go back to *strenuous duties very soon after giving birth*.

#### 20.2.4 Mental Health and Substance Abuse

- Rates of reporting *illicit substance use* in the past year were very low (4%) but may well reflect the women's concerns about someone learning of their responses.
- About one-third of our sample reported some significant *drinking problems* on the BMAST; only 8% reported drinking problems to the level suggesting alcoholism.
- Perhaps the most striking finding in our study was the high rate of *mental health problems*, as assessed by the GHQ. Almost one-half of our sample met the threshold for psychiatric disorder. Although we would expect rates of women soldiers to be higher than a typical community sample, the rates seem very high. We discuss possible reasons for this at some length in the section of the report on mental health.

#### 20.2.5 Daily Hassles, Stressful Life Events, and Traumatic Life Events

- The "*daily hassle*" items that half or more of the sample reported as having recently given them significant problems or worries were: not getting enough rest, debts, not enough money, trouble relaxing, not enough time for family, and not enough energy.
- Almost 40% of the sample reported that the daily hassles they endorsed on the questionnaire bothered them a lot or an extreme amount; another 38% said the hassles *bothered them* a moderate amount.
- The *stressful life events* that women soldiers reported most frequently experiencing in the past 12 months were: their financial situation getting worse, being stationed away from their spouse or children, and getting a divorce or having an important relationship end.
- Fifty-one percent of our women reported having experienced a *physical or sexual assault* sometime in their lifetime; 35% had experienced a physical assault and 34% had experienced a sexual assault.
- About 12% of the sample reported having experienced a *physical or sexual assault in the past 12 months*.

## 20.2.6 Sexual Harassment and Discrimination

- Sexual harassment appears to still be serious problem for Army women. Overall, about three-fourths of the sample reported experiencing *crude and offensive behaviors*, and almost one-third reported being exposed to high levels of crude and offensive behaviors.
- Overall, 77% reported experiencing *sexist behaviors*, 43% reported experiencing unwanted sexual attention, and 28% reported experiencing *sexual coercion*. The rates were highest for active duty enlisted women and lowest for reserve officers. Nonetheless, even the rates of exposure for reserve officers was substantial for most behaviors.
- The prevalence of the four domains of sexual harassment behaviors that we assessed (crude/offensive behaviors, sexist behaviors, unwanted sexual attention, and sexual coercion) *had not changed substantially from prevalence rates* found in the 1995 Sexual Harassment Survey or the 1997 Senior Review Panel Sexual Harassment report.
- Almost half of the sample found some sexual harassment incident/incidents to be *somewhat upsetting or very upsetting*, but the overwhelming majority (79%) of those experiencing sexual harassment did not report them to the Army/Army reserve.
- About 60% of those who reported an incident said they were dissatisfied with the Army's response.
- About one-third (33%) of the sample reported that supervisors treated women soldiers in a *discriminatory manner*, such as giving men more opportunities or more rewards, or making negative remarks about women's performance.
- About 22% reported that *gender discrimination* had had a somewhat serious impact or very serious negative impact on them professionally or personally

## 20.2.7 Other Stressors

- Almost half of our women reported never *being deployed or stationed overseas*, although the rate of deployment was 57% among active duty enlisted women and about 40% among reservists.
- A little more than one-fourth of the sample had been stationed in a *war zone* or in a zone of hostile or police action. It was one-third for active duty enlisted women and less than one-fifth for reservists.
- Among minorities, three-fourths reported that racial discrimination had not hurt their careers at all or had hurt their careers very little. Only 12% said it had hurt their careers a lot.
- Approximately 18% of our sample had high scores on our *financial strain index*. A substantial minority of the sample (33%) found it difficult to cover the costs of basic essentials, such as clothing and child care. Slightly more than half of the sample

reported that they did not have enough money for leisure time activities, such as going to the movies.

### 20.2.8 Buffers of Stress

- Most women in our sample reported moderate to high levels (70% to 80%) of *social support* from family and friends, a level of support found sufficient in some studies to serve as an effective buffering agent.
- More than half of the women in the sample reported high levels of informational, affective, and instrumental *support from coworkers*; about 17% reported low levels of affective and instrumental support from coworkers.

### 20.2.9 Other Outcomes

- We assessed both days *missed work* (or “normal activities” for days off) and days in which the respondent had to *reduce or cut back work* or activities. In the past 30 days, 82% had missed no days, and only 10% had missed 3 or more days. Seventy percent had cut back on activities no days, and 17% had cut back 5 or more days.
- *Performance* was good overall. Only 11 % of the sample were below expectations on performance, while two-thirds of the sample performed above expectations. The modal category was somewhat exceeds expectations. Performance was roughly comparable across the active duty and reserve components.
- There was roughly a 60/40 split between those who expected to *voluntarily leave* the active duty Army or reserves in the next year (43%) and those who did not (57%). Rates for intention to stay in were higher for reservists than for active duty enlisted women.
- Almost half of the sample intended to stay in the Army *until retirement*, if they could. Rates for intending to stay in until retirement were higher for reservists than for active duty enlisted women.
- Forty to fifty percent of the women had a *favorable attitude* toward the Army; between a fifth and a third had a negative attitude. Attitudes of reservists women were much more favorable than attitudes of active duty enlisted women.

### 20.2.10. Group Differences

- As would be expected, active duty enlisted women tended to report substantially higher levels of stressors and had poorer outcomes than reserve enlisted women. Reserve officers reported substantially fewer stressors and had better outcomes than reserve enlisted women.

- Thus, the aggregate totals for the level of stressors reported in this summary under-represents the level of stressors and negative outcomes reported by active duty enlisted women. The body of the report provides data on stressors, buffers, and outcomes by rank/branch.

## **20.3 Multivariate Analyses**

### **20.3.1 Control Variables**

- These comprised age, race/ethnicity, occupation, rank, marital status, school-aged children living at home, and years served in the Army/Army reserve.
- We found that the control variables were all related to at least several outcomes.
- There did not appear to any consistent theme in these relationships, however.
- Race/ethnicity was the control variable that significant in the largest number of models.
- Age, years served, and children at home, however, seemed to be more likely to affect mental health and performance (days cut back, performance, BMAST, morale, and GHQ) than race, occupation, and rank.

### **20.3.2 Predictors and Buffers**

- The most impressive finding was the importance of job satisfaction, which was strongly related to many of the outcomes, both for active duty enlisted and reserve women. And, it was often fully ordered; that is, those with the most job satisfaction typically had the best outcomes, those with the least job satisfaction had the worst outcomes, and the other levels of satisfaction fell in between.
- The other predictors that had an effect in the greatest number of models were daily hassles, sleep problems, job pressure, and social support. Having a large number of daily hassles, being bothered by daily hassles a lot, and having sleep problems were consistently associated with poorer outcomes. Having low social support also resulted in poorer outcomes and seemed to amplify the problems associated with having school-aged children living at home. Higher job pressure was generally associated with poorer outcomes, except that it was also associated with better performance for active duty enlisted women. Possible reasons for this are discussed in the section on active duty models.
- Other predictors that we found to have an impact in more than one model included service in a war zone or hostile action zone, sexual assault, and working conditions. Serving in a war zone or hostile action zone had a mixed relationship with outcomes. Sexual assault and poor working conditions were associated with poorer outcomes.

- Seven other variables were found to be associated with poorer outcomes in one model: physical assault, low job autonomy, unwanted sexual attention, financial strain, lack of an informational coworker, sexual coercion, and a high number of stressful life events.

### 20.3.3 Active Duty Versus Reserve

- As in the descriptive findings, active duty enlisted women tended to have the worst outcomes, and reserve officers tended to have the best outcomes: Reserve enlisted women tended to have outcomes in between but, in most cases, closer to those for active duty enlisted women.
- In the models, the active duty enlisted women and reserve women seemed to share many of the same predictors. Race/ethnicity, marital status, age, years in service, job satisfaction, and sleep problems were important predictors for both groups.
- For active duty enlisted women, however, marital status, children at home, and daily hassles were more important predictors than they were for reservists.
- For reservists, rank and job pressure seemed to be more important predictors than they were for active duty enlisted women. (It is important to remind the reader that the importance of rank for reservists may be an artifact of the dataset. For the reservist models, three groups were compared: junior enlisted personnel, senior enlisted personnel, and officers. For the active duty models, we only had two groups: junior enlisted personnel and senior enlisted personnel. Therefore, the greater number of differences found for rank among reservists may be because of enlisted/officer differences that were not examined in the active duty group. ]

## **21.0 CONCLUSIONS AND RECOMMENDATIONS**

### **21.1 Limitations of the Study**

This study, the Nature and Outcomes for Women of Stressors Associated with Military Life (NOWSAML), was meant to be an exploratory study with an "epidemiology/public health" orientation. Its purpose was to provide information about the level of stressors, buffers, and outcomes (positive and negative) among women soldiers, and information about the impact of stressors and buffers on outcomes--with selected demographic and military characteristics controlled. We examined these issues by rank and branch, so that interventions could be developed that focused on those groups with the more serious levels of problems.

The study has several caveats. First, we do not have information about men in the Army, so we do not know how the prevalence of many of these stressors compares with that for men. One can hypothesize, for example, that potential deployment is a substantial stressor for both men and women, but that it is probably perceived to be most stressful by the caretakers of young children, are mostly women. Sleep problems, job autonomy, and exposure to stressful life events (such as financial problems) may be similarly stressful for the two groups, but we do not have the data to allow us to make those comparisons. The literature does suggest, however, that women sometimes perceive certain types of situations to be more stressful than men; that women are protected/buffered more effectively than men by social, coworker, and supervisor support, but that women do not necessarily have poorer outcomes than men, even when perceiving more stress.

A second and related caveat is that we did not have a control group, that is, a group of employed, community women to whom we administered the same questionnaire. When data on community samples for items or scales were available, we provided them in the report for comparison purposes.

Finally, funding limitations dictated that this report provide only basic descriptive and modeling analyses that were consistent with the major goals of the study. In the future, we would like to do a more in-depth examination of our variables, including additional analyses examining our descriptive variables by socio-demographic characteristics and analyses using models that combine active duty enlisted and reserve women, controlling on socio-demographic and military characteristics. For example, in the analyses we conducted for this report, we cannot determine what differences in distributions of stressors, buffers, and outcomes between

active duty enlisted women and reserve women are primarily differences resulting from different socio-demographic characteristics, and we cannot determine what differences reflect real cultural, operational, and other differences across branches. Nonetheless, whatever their source, the differences between groups are real and point up where the military might most productively focus any intervention efforts.

## 21.2 Overall Findings

Overall, there were many indicators that suggested that women were functioning well. Few women reported many sick days, drug use, or serious alcohol problems, and performance was good overall. Three-fourths of the women rated their morale as moderate or better.

However, our data suggested that there were some problems as well. Sexual harassment and discrimination are still major factors in many of these women's lives, and enlisted women have substantial financial pressures. Furthermore, women overall tended to have high levels of sleep problems and high scores on our mental health measure.

The levels of stress exposure found in our study vary substantially by stressor, rank, and branch. In addition, other socio-demographic characteristics were found to be related to outcomes, suggesting that stressors may have differential effects on different socio-demographic groups. The proportion of women with problematic outcomes vary similarly by stressor, rank, branch, and socio-demographic characteristics.

We examined the intercorrelation of the outcome variables in our models and found that, other than the correlation of attitude with and without imputations (which correlated at 1.0), the only correlation among the outcomes of .4 or higher was for "retention" and "attitude without imputations" (correlation=.51). This suggests that these outcomes are relatively independent, with the exception of attitude and retention. The intercorrelation of these two variables is not surprising since the attitude items asking "whether you would join the Army again" are closely related to the retention item asking "how long you intend to stay in the Army".

The study found that soldiers had problems in a number of areas that the military has already identified and targeted for programmatic change. Sexual harassment has been examined in several studies, and a number of programs have been instituted to reduce the problem. The Army Training and Leader Development Panel ([www.dtic.mil/armylink/news/May2001](http://www.dtic.mil/armylink/news/May2001)) has identified as problematic issues related to high operational tempo and insufficient commitment

to well-being, family, and personal time. Changes have been recommended to reduce the tempo where possible and to offer more support for well-being, family, and personal time.

In the text that follows, we present some conclusions about the study findings and some recommendations for changes.

## **21.3 Differences in Demographic and Military Characteristics**

### **21.3.1 Rank/Branch and Age**

It is not surprising that officers with higher incomes, better education, more autonomy, and more options tend to report less stress and have better outcomes than enlisted women. This finding is consistent with the literature. The mean age for officers also tends to be higher than for enlisted personnel, and age can be a buffering factor for some types of stressors. Young soldiers, for example, are those most likely develop post-traumatic stress disorder (PTSD) from combat exposure (Kulk et al., 1990).

The officers surveyed in this study had been in the military, on average, substantially longer than the enlisted women, thus creating a selection bias--- that is, the "if you can't stand the heat, get out of the kitchen" factor. Female officers who experienced the highest levels of stress, and/or female officers who did not have high levels of resilience may have left the Army early in their careers, thus negatively skewing the findings on the level of stress to which officers may be exposed and positively skewing the findings on positive outcomes for women officers exposed to high levels of stressors. To help control for selection factors, analyses that are limited to officers early in their careers could help to better determine the level of stressors and outcomes and the impact of stressors on outcomes among officers, although our sample was too small to support such an analyses.

In any study, it is difficult to assess the independent effects of being an officer because of the high correlation of rank with education, income, age, and time served. We examined the effects of rank, controlling on age and time served, in our models. However, it is unclear whether, with their very high correlations with rank, the effects of education and income, over and above the effects of rank, could ever be teased out. More simply stated, military rank may serve as a proxy for education and income (or, more broadly, socio-economic status) in the analyses reported here.

By including age, junior vs. senior enlisted status, and time served in our models, we tried to control for the bimodal distribution that is often found among reserve enlisted women, that is, for new, young women reservists and older, retired-active women reservists.

Although age was a significant factor in some models, increased age was associated with sometimes better and sometimes with worse outcomes. Older women had fewer drinking problems and, if they had served in a war zone, better morale. Older age was also associated with more days cut back on activities, however.

Certainly one important difference between the active duty and reserve components is the amount of time they are exposed to military stressors. With their much more limited exposure, one would expect that reservists would have substantially fewer negative effects from military stressors. As expected, reserve enlisted women did tend to report lower levels of most stressors, as well as better outcomes, than active duty enlisted women, it is somewhat surprising that their stressors were not even lower and their outcomes were not even higher.

The level of problems among reserve enlisted women is probably related, at least in part, to their low salaries: They reported somewhat higher levels of financial strain than active duty enlisted women. They were also more often Black, which may have hindered their opportunities in civilian jobs, and they were more often single parents than active duty enlisted women. It is likely that many of them were in the reserve because of their financial problems. If the reserve women also had civilian jobs, serving in the reserve as well is likely to be stressful, particularly for a single parent. Their financial strain and the stress of both a civilian and a military job are likely factors in their perceived levels of stress and their other problems. For example, 40% of the reserve women had a score suggesting a mental health problem, compared to 48% for active duty enlisted women—rates that were lower, but not much lower, than might have been expected.

If the Army is to retain more of its female enlisted soldiers and to have enlisted soldiers achieve better performance and improved efficiency, many of the problems identified in the following text need to be addressed, particularly with regard to enlisted personnel.

### **21.3.2 Racial and Ethnic Differences**

We found racial differences in a number of the models, with minority status often associated with poorer outcomes. Programs that are developed to address stressors and outcomes may need to incorporate outreach activities, that is, ways to attract and retain minorities in the intervention programs.

### **21.3.3 Women with Children and Pregnancy**

Mothers of children, particularly those with low levels of social support, also reported poorer outcomes. Enlisted women reported problems affording child care. It might be useful to conduct experiments with programs that focus on providing financial or "in kind" support to women soldiers with children. For enlisted women, this might include subsidizing child care. For enlisted women and officers, developing programs that provide care for sick children so their mothers can work could reduce days missed and cut back, and buffer the stress of being a caretaker. For enlisted women, this might also involve subsidy for such care.

Pregnancy appears to also present many problems for women soldiers. The literature indicates that pregnant active duty women have higher rates than other women of antenatal hospitalizations and hospitalizations for pregnancy complications, as well as comparatively more preterm labor, cesarean sections, and intrauterine growth retardation (McNeary and Lomenick, 2000). Tam (1998) identified three types of psychological stressors for military women: lack of social supports, pressures of minority status, and institutional reactions to gender roles. Tam proposed mandatory education for military leaders regarding sensitivity to women's reproductive issues, as well as specialized briefings for women inductees on the realities and risks of pregnancy in the military. We would also recommend that the Army re-examine policies related to strenuous activities shortly before and after childbirth. Both medical opinions, as well as input from women soldiers, should be included in this examination, in order to develop policies that are more mother-friendly.

## **21.4 Predictors/Stressors**

### **21.4.1 Financial Strain**

It is clear, not only from our study but also from many studies that have gone before, that financial strain takes a toll on the mental health, performance, and retention of Army women. An examination needs to be made of how well newly instituted pay increases for the military reduce the level of financial problems for soldiers, particularly enlisted women. Programs to provide services to Army personnel at reduced cost should be examined as a potentially less expensive way for the Army to reduce financial strain on women than raising salaries. Subsidized child care, as described earlier, is one example.

### **21.4.2 Job Satisfaction and Occupational Stressors (Job Pressure, Working Conditions, Autonomy, Quality of Supervisor)**

Job satisfaction was an important predictor in our models. A review of the job satisfaction literature (Locke, 1983) suggests that the opportunity to use one's skills and abilities; the opportunity for new learning; creativity; difficulty; the amount of work; responsibility; nonarbitrary pressure for performance; autonomous control over work methods and pace; job enrichment; and complexity of tasks were all related to job satisfaction. A study by Alpass, Chamberlain, and MacDonald (1997) found that among New Zealand Army and ex-Army personnel, job satisfaction was related to leader facilitation and support; job challenge, autonomy, and importance; and job conflict and pressure. In our study, job pressure, working conditions, and autonomy were significant predictors in some models. Moskos and Wood (1988) suggested that promotion criteria in the military should favor leaders who promote group cohesiveness, affirm altruistic norms, and provide support to their subordinates.

Job satisfaction is particularly important in an era when it may be difficult to get and retain bright, qualified personnel, particularly if the military often cannot match the salaries of many civilian jobs. Job satisfaction can make up for lower pay and some of the pressures inherent in being a soldier, for example, deployment. Findings from the current student and earlier studies suggest that increasing autonomy and improving working conditions, decreasing job pressure, having good leaders/supervisors who promote cohesiveness and support their subordinates, keeping the work load to something manageable, trying to make work meaningful and challenging, and reducing conflicts have the potential to increase job satisfaction.

### **21.4.3 Daily Hassles**

Daily hassles include stressors like financial problems (discussed separately elsewhere). They also include, however, things like not having enough family time or personal time and trouble relaxing. The Army Training and Leader Development Panel's recommendations focus on some of these issues, such as reducing the pace and better support of families. Providing support services that ease everyday burdens could also help soldiers (for example, providing day care for sick children, as described earlier). The Army should examine what other types of services would most assist women soldiers, that is, what other types of services could be provided on, or near, installations and would reduce the amount of time women and men soldiers must spend in the everyday activities that eat up their day, particularly programs that focus on those who are caretakers of children. Experiments can be conducted to determine the cost and utility of providing such services.

### **21.4.4 Rest and Sleep**

There are times in combat when soldiers have to function on little sleep. In preparation for such duties, training for soldiers must include sleep-depriving activities. The Army recognizes, however, that routinely getting too little sleep and rest time can negatively impact performance and interfere with the Army's commitment to well-being and families. The Army's high-paced tempo has also been described as a problem by the Army Training and Leader Development Panel. Furthermore, in our study, we found high rates of sleep problems--problems that were related to negative outcomes like mental health problems.

In order to reduce problems reported by soldiers in the current study--such as difficulty getting enough rest and sleep, trouble staying asleep, difficulty relaxing, and not enough family time--soldiers' normal post-initial entry training (IET) schedules should be designed to: (1) provide more time for sleep and rest and (2) reduce the amount of activities that interfere with normal sleep patterns and the ability to rest, like routinely working long hours. Experiments could be done to determine how the number of hours worked and the nature of schedules can be manipulated to achieve a good balance for the soldier and for the Army's mission.

## 21.4.5 Sexual and Gender Harassment

The Army has gone to great efforts--including funding multiple rounds of data collection, gathering expert opinions, and developing a variety of programs--to address the issues of sexual harassment and gender harassment. However, it appears that, at least as of 1999, these programs still had not been highly effective. This is undoubtedly due, in part, to the fact that many of the most ambitious efforts have been done too recently to see substantial effects. There may be other factors hindering the success of these programs.

For example, the 1997 report of the Secretary of the Army's Senior Review Panel on Sexual Harassment (U. S. Army, 1997, volume 2) found that:

- The Army lacks institutional commitment to equal opportunity programs and soldiers distrust the equal opportunity complaint system.
- Sexual harassment exists throughout the Army, crossing gender, rank, and racial lines; sex discrimination is more common than is sexual harassment.
- Army leaders are the critical factor in creating, maintaining, and enforcing an environment of respect and dignity in the Army; too many leaders have failed to gain the trust of soldiers.
- The overwhelming majority of drill sergeants and instructors perform competently and well, but respect as a core Army value is not well institutionalized in the IET process.

We do not know the extent to which these conditions have changed in the past 4 years, but certainly any that have not changed substantially need to be addressed as an essential step toward progress in this area. Sexual harassment and gender harassment are difficult things to change, because these behaviors are at least as much about power and negative attitudes toward women serving in the Army as they are about sexual attraction and such attitudes are deeply instilled in those who hold them. Tolerance of sexual harassment among soldiers has been found to be associated with: (1) "negative masculinity" (including narcissistic and aggressive characteristics); (2) hostility toward women; and (3) lack of acceptance of women as men's equals in the Army (Rosen and Martin, 1998).

Previous research does indicate that sexual harassment can be reduced in the workplace. A 1995 DoD survey found that "harassment occurs less frequently in groups whose members perceive that the organization's upper levels will not tolerate such behavior" (Fitzgerald et al., 1999). Thus, senior officers must make it a point to demonstrate that they will not tolerate such

behavior. The same study found that harassment was associated with negative psychological well-being and job attitudes and that it occurred less frequently in more gender-balanced work groups. In our study, sexual harassment was also found to be associated with mental health problems, and the levels of sexual harassment in our sample may be related to the fact that about 40% of our sample reported that they work in groups consisting primarily of men or entirely of men.

Since the investigators on the current study were not a part of the discussions of these issues among the military, we do not know: what programs have been considered and what have been rejected, how well any programs that have implemented have been carried out, and the exact nature of the programs that now exist. Thus, most of what we can recommend is probably redundant.

Certainly, intolerance of sexual harassment by all officers is a key factor. Taking all complaints seriously and having them thoroughly investigated while maintaining the anonymity of the complainant seems important. Having reports of a serious nature handled by individuals outside of the chain of the command also seems important. We would recommend that serious complaints be investigated by those outside of the Army itself, but that seems unlikely. There is certainly a perception among women soldiers that male soldiers, particularly officers, cover for each other and are treated with "kid gloves." Programs that can reduce this perception would be helpful. The fact that women in our study have often been dissatisfied with the outcomes of their complaints suggests that a better process is needed for handling complaints and ensuring swift, sure, and fair punishment to offenders. Finally, education programs for men on issues related to diversity, sexual harassment, and discrimination need to be continued.

Only recently have organizations, civilian and military alike, come to treat sexual harassment as an important issue. It is a crucial one, because women are now needed in the Army to ensure that there are a sufficient number of qualified soldiers to fill Army positions. Furthermore, harassment can negatively affect mental health, job satisfaction, attitude, and retention. There may be no quick fixes; rather, this problem needs ongoing attention if efforts are to be effective.

#### **21.4.6 Sexual Discrimination**

In our study, one-third of the sample reported that women were treated unequally, that men were given more opportunities or rewards, or that women were given more criticism than

men. It appears that many men still do not fully accept women in the variety of roles they now hold in the military, and such attitudes are often the basis of discrimination. For example, a 1994 study of Army personnel, on women's roles in the Army, found substantial differences in attitudes between men and women. The data suggested that acceptance of women in the many roles they may now attain in the Army by male soldiers remains limited (Stiehm,1998).

Programs that target sexual harassment may also address sexual discrimination issues since they stem from the same attitudes. If the Army is to retain highly qualified women, it must provide an atmosphere where they feel they are treated fairly. In our sample, less than one-fourth of the women reported that sexual discrimination had a somewhat serious impact or very serious negative impact on their career, but about one-half of the sample reported experiencing gender discrimination at work, discrimination that can be demoralizing and result in a negative attitude toward one's job and the Army. The Army already has programs in place to address discrimination but, again, women still perceive discrimination. We would recommend a continuing re-examination of anti-discrimination programs, to ensure that programs are effective and to ensure that new programs are based on the latest research and opinions of experts working in the field of gender discrimination.

#### **21.4.7 Deployment**

Other than gathering data on deployment to a war zone or police action zone, assessment of deployment in ways that well measure the stressor effects of being deployed is difficult unless a study devote a lot of time (and questionnaire items) to assess the phenomena, particularly since some of the stress of deployment is anticipatory. We did not have a good measure of the effects of deployment to include in our models, so we could not test well its effects on outcomes. Deployment was listed as one of the most stressful life events of women in our studies, and certainly other studies have found deployment to be stressful on soldiers. It is particularly difficult for caretakers of young children. The Army Training and Leader Development Panel made recommendations to reduce the stress of deployment on soldiers. It is important for the Army to continue to examine ways to further reduce the impact of deployment on soldiers, particularly for caretakers of children.

#### **21.5 Buffers**

Social and coworker support have been found in the literature to improve outcomes for those under work pressure or other stressors, particularly for women. Rewarding officers who

develop group cohesiveness and who are supportive of those they supervise could help to improve coworker and social support.

## **21.6 Outcomes**

### **21.6.1 Retention and Attitude**

Job satisfaction, working conditions, autonomy, job pressure, and daily hassles all influence retention. A study of Air Force women in Desert Shield and Desert Storm (Pierce, 1998) found that having a very young child, not having adequate social support and other support for a young child, pregnancy, and other family-related matters were related to retention. In that study, Pierce suggests that "young families with multiple stressors, including financial hardship and demanding work patterns, require organizational support and policies to ease their burden so they can maintain military readiness and a stable family life". She particularly advocates for support through stresses of the childbearing years and provisions for family support during deployments, as ways of keeping women in the military. Consistent with our findings and recommendations, she states that "attention also needs to be directed to the issues of balancing military commitments and family life, a perceived lack of promotion and recognition, dissatisfaction with working conditions and environment and financial hardship." This would suggest that sexism and harassment are also factors that can influence retention. Thus, effective ways to increase retention would be by reducing the impact of the stressors described earlier (for example, deployment, job conditions, and sexism).

### **21.6.2 Mental Health**

Mental health problems appeared to be quite high--43% to 48%, compared to 10% to 20% in community and other civilian samples, 23% in a sample of Navy and Marine women, and about 40% among women exposed to trauma. Prevalence rate differences between our sample and samples of community women and women in other branches are likely to be, in part, the result of demographic differences. As well as the differences in demographic characteristics between entering the Army, Navy and Marines, however, there are also likely to be differences in military cultures, duties, and experiences among women in the different branches that may relate to prevalence rate differences in psychological problems.

It is likely that a combination of stressors raised the mental health scores above the rates for community samples. Significant levels of sexual harassment and sexual coercion as well as

sexual assault, were all related to GHQ scores in our study. This relationship has been found in other studies, such as one done Rosen and Martin (1998), which found that sexual harassment were significant predictors of psychological symptoms in both Army men and women. Reducing sexual harassment and gender harassment (that is, harassing the opposite sex in non-sexual ways) has an excellent potential for reducing psychological symptoms among women soldiers.

In our study, sleep problems were also found to be related to GHQ score, as were job pressures and daily hassles. If the recommendations of the Army Training and Leader Development Panel could indeed reduce the pace of duties and other stressors, this would be likely to reduce the mental health problems of our sample. We also proposed actions earlier to reduce some stressors that may influence mental health problems.

Another problem, however, is the stigma attached to seeking counseling for mental health problems. It would be useful to try experimental programs to encourage both men and women to seek counseling for distress associated with their work and to provide counseling in such a way that a personnel could feel confident that no one would know they were attending. Reducing the stigma associated with counseling would be the ideal and, again, it would be useful to try experimental programs to educate personnel on the importance of counseling as a way to improve performance and readiness.

### **21.6.3 Drinking Problems**

Providing outreach programs for those who have been assaulted, reducing negative attitudes toward receiving such counseling, and developing more or better programs for drinking problems that target younger individuals were the strategies suggested by our models.

### **21.6.4 Days Cutting Back Activities**

Sleep problems seemed to have a big impact on cutting back on activities for both active duty enlisted women and reserve women. Setting schedules and organizing duties to reduce such problems could improve this aspect of performance. Again, supportive services to help reduce the effect of daily hassles could also help.

### **21.6.5 Morale**

Again job satisfaction is very important. Setting schedules and organizing work duties to reduce factors that result in sleep problems would also help morale. Supportive services for those with young children would be the another important factor.

### **21.6.5 Attitude Toward the Army**

Job satisfaction also seems very important to instill a better attitude toward the Army. Providing support services, particularly for women with young children, seems to be another important factor.

## References

- Aardal-Eriksson, E., T.E. Eriksson, A. Holm, and T. Lundin. 1999. Salivary cortisol and serum prolactin in relation to stress rating scales in a group of rescue workers. *Society of Biological Psychiatry* 46(6):850-855.
- Aguilera D. Crisis intervention: *Theory and Methodology* (7th ed.). Mosby: St. Louis; 1994.
- Alpass, Fiona. 1997. Job satisfaction differences between military and ex-military personnel: the role of demographic and organizational models. *Military Psychology* 9(3): 227-249.
- Aro, S. Occupational Stress, health-Related Behavior, and Blood Pressure: A 5-Year Follow-Up. *Preventive Medicine*. 1984;13:333-348.
- Baker, R.R., Menard, S.W., & Johns, L.A. The military nurse experience in Vietnam: Stress and impact. *Journal of Clinical Psychology*. 1989;45:736-744.
- Banks, M.H. 1983. Validation of the General Health Questionnaire in a young community sample. *Psychological Medicine* 13(2):349-353.
- Barnett, R.C., and G.K. Baruch. 1985. Women's involvement in multiple roles and psychological distress. *Journal of Personal & Social Psychology* 49:133-145.
- Barnett, R.C., H. Davidson, and N.L. Marshall. 1991. Physical symptoms and the interplay of work and family roles. *Health Psychology* 10(2):94-101.
- Bartol, C.R., G.T. Bergen, Volckens, and K.M. Knoras. 1992. Women in small-town policing: job performance and stress. *Criminal Justice and Behavior* 19(3):240-259.
- Bartz, C., Maloney, J.P. Burnout among intensive care nurses. *Research Nursing Health*. 1986;9:147-153.
- Bastin, L.D., A.R. Lancaster, and H.E. Reyst. 1996. *Department of Defense 1995 Sexual Harassment Survey*. Defense Manpower Data Center Report DMDC 96-015:1-81.
- Baum, A., M. O'Keefe, and L. Davidson. 1990. Acute stressors and chronic response: The case of traumatic stress. *Journal of Applied Social Psychology* 20(20):1643-1654.
- Beena, C., and P.R. Poduval. 1992. Gender differences in work stress of executives. *Psychological Studies* 37(2 & 3):109-113.

- Beer, J. 2000. Burnout and stress, depression and self-esteem of teachers. *Psychological Report* 71:1331-1336.
- Belle, D. The stress of caring: Women as providers of social support. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 496-505). New York: The Free Press; 1982.
- Birgenheier, P.S. Parents and children, war and separation. 1993. *Pediatric Nursing*. 19(5):471-476.
- Bishop, G.D. Gender, role, and illness behavior in a military population. *Health Psychology*. 1984;3(6):519-534.
- Bjornson, L.M. 1990. *The role of job-related self-efficacy in the relationship between work stress, strain, and alcohol consumption*. Dissertation Abstracts International. 51(08-B):4040. (University Microfilms NO. AAD90-31240).
- Bloom, B.L. 1985. *Stressful life event theory and research: Implications for primary prevention*. DHHS Publication No. (ADM) 85-1385), Rockville, MD: National Institute of Mental Health.
- Borman, J.S. 1993. Chief nurse executives balance of their work and personal lives. *Nursing Administration Questionnaire* 18(1):30-39.
- Bourbonnais, R., C. Brisson, J. Moisan, and M. Vezina. 1996. Job strain and psychological distress in white-collar workers. *Scandinavian Journal of Work and Environmental Health* 22:139-145.
- Bowen, G.L. Single Mothers for the Defense. *Conciliation Courts Review*. 1987, Jun;25(1):13-18.
- Bowen, G.L., D.K. Orthner, and L.I. Zimmerman. 1993. Family adaptation of single parents in the United States Army: an empirical analysis of work stressors and adaptive resources. *Family Relations* 42:293-304.
- Boxer, P.A., and D. Wild. 1993. Psychological distress and alcohol use among fire fighters. *Scandinavian Journal of Work, Environment and Health* 19(2):121-125 & 129.
- Brende, J.O., Parson, E.R. Special veteran groups: Women and the ethnic minorities. In Brende JO, Parson ER (Eds.), *Vietnam veterans: The road to recovery*. New York: Plenum Press; 1985.
- Brimer, R.B. 2000. Relationships between work environments, psychological environments and psychological well-being. *Occupational Medicine* 50(5):299-303.

- Briscoe, M.E. Why do people go to the doctor? Sex differences in the correlates of GP consultation. *Social Science Medicine*. 1987;25:507-513.
- Brown, J., J. Fielding, and J. Grover. 1999. Distinguishing traumatic, vicarious and routine operational stressor exposure and attendant adverse consequences in a sample of police officers. *Work & Stress* 3(4):312-325.
- Brown-Rowat, B., Amsel, R., Jeans, M.E. Professional and Executive Women: Health and Lifestyle Characteristics. *Health Care for Women International*. 1990;11:133-149
- Brugha, T.S., Bebbinton, P.E, Stretch, D.D., MacCarthy, B., Wykes, T. Predicting the short-term outcome of first episodes and recurrences of clinical depression: a prospective study of life events, difficulties, and social
- Burke, R.J. Stressful events, work-family conflict, coping, psychological burnout, and well-being among police officers. *Psychological Reports* 75:787-800.
- Burvill, P.W., and M.W. Knuiman. 1983. Which version of the General Health Questionnaire should be used in community studies? *Australian New Zealand Journal of Psychiatry* 17(3):237-242.
- Chandler, J., L. Bryant, and T. Bunyard. 1995. Women in military occupations. *Work, Employment & Society* 9(1):123-135.
- Charney, D.A., & Russell, R.C. An overview of sexual harassment. *American Journal of Psychiatry*. 1994;151(1):10-17.
- Cheren, S. 1989. *Psychosomatic medicine: theory, physiology, and practice*. Madison, CT: International Universities Press.
- Cherpitel, C.J. 1999. Gender, injury status and acculturation differences in performance of screening instruments for alcohol problems among U.S. Hispanic emergency department patients. *Drug and Alcohol Dependence* 53:147-157.
- Clohessy, S., and A. Shlers. 1999. PTSD symptoms, response to intrusive memories and coping in ambulance service workers. *British Journal of Clinical Psychology* 38(3):251-265.
- Cohen, S., Hoberman, H.M. Positive events and social support as buffers of life change stress. *Journal of Applied Social Psychology*. 1983;13(2):99-125.
- Cohen, S., and T.A. Wills. 1985. Stress, social support, and the buffering hypothesis. *Psychological Bulletin* 98(2):310-357.

- Crabbs, M.A., K.U. Black, and S.P. Morton. 1986. Stress at work: a comparison of men and women. *Journal of Employment Counseling* 23(1):2-8.
- Culbertson, A.L., Rosenfeld, P. Assessment of Sexual Harassment in the Active-Duty Navy. *Military Psychology*. 1994;6(2):69-93.
- Dahl, S., and S. Kristensen. 1997. Health profile of Danish army personnel. *Military Medicine* 162(6):435-440.
- Dalgard, O.S., Bjork, S., Tambs, K. Social Support, Negative Life Events and Mental Health. *British Journal of Psychiatry*. 1995;166:29-34.
- Davidson LM, and A. Baum. 1993. Predictors of chronic stress among Vietnam veterans: Stressor exposure and intrusive recall. *Journal of Traumatic Stress* 6(2):195-212.
- Davies, F., Norman, R.M.G., Cortese, L., Malla, A.K. The Relationship Between Types of Anxiety and Depression. *Journal of Nervous Mental Disorders*. 1995;183(1):31-35.
- DeFleur, L.B. 1985. Organizational and ideological barriers to sex integration in military groups. *Work and Occupation* 12(2):206-228.
- Devilbiss, M.C. Gender integration and unit deployment: a study of GI Jo. 1995. *Armed Forces and Society* 11(4):523-552.
- DiSalvo, V., C. Lubbers, A.M. Rossi, and J. Lewis. 1988. The impact of gender on work-related stress. *Journal of Social Behavior and Personality* 3:161-176.
- Dohrenwend, B.P., and P.E. Shrout. 1981. "Hassles" in the conceptualization and measurement of life stress variables. *American Psychology* 9:128.
- Donovan, M.A. and Drasgow, F. Do Men's and Women's Experiences of Sexual Harassment Differ? An Examination of the Different Test Functioning of the Sexual Experiences Questionnaire. *Military Psychology*. 1999;11(3):265-282.
- Driskell, J.E., Olmstead, B. Psychology and the Military: Research Applications and Trends. *American Psychologist*. 1989, January; 44(1): 43-45.
- Dritschel, B.H., Pettinati, H.M. The Role of Female Occupation in Severity of Alcohol-Related Problems. *American Journal of Drug & Alcohol Abuse*. 1989;15(1):61-72.
- DuBois, C.L.Z., Faley, R.H., Kustis, G.A., Knapp, D.E. Perceptions of Organizational Responses to Formal Sexual Harassment Complaints. *Journal of Managerial Issues*. 1999, Summer; XI(2):198-212.

- Ducharme, L.J., and J.K. Martin. 2000. Unrewarding work, coworker support, and job satisfaction: a test of the buffering hypothesis. *Work and Occupations* 27(2):230-241.
- Elliott G. Stress and illness. In Cheren S. (Ed.), *Psychosom Med: Theory, Physiology, and Practice (Vol. I)*. Madison, CT: International Universities Press; 1989.
- Engel, C.C., Engel, A.L., Campbell, S.J., McFall, M.E., Russo, J., Katon, W. Posttraumatic stress disorder symptoms and precombat sexual and physical abuse in Desert Storm veterans. *Journal of Nervous Mental Disease*. 1993;181(11):683-688.
- Eshkol, E., A. Liebllich, R. Bar-Yosef, and H. Wiseman. 1987. Some correlates of adjustment of Israeli women-soldiers to their military roles. *Israel Social Science Research* 5(1&2):17-28.
- Etzioni, D., Pines, A. Sex and culture in burnout and coping among human service professionals: a social psychological perspective. *Journal of Cross-Cultural Psychology*. 1986;17:191-209.
- Ezoe, S., Morimoto, K. Quantitative Assessment of Stressors and Stress Reaction: A Review. *Japanese Journal of Industrial Health*. 1994;36:397-405.
- Fairbank, J.A., Schlenger, W.E., Caddell, J.M., Woods, M.G. Post-traumatic stress disorder. In P.B. Sutker & H.E. Adams (Eds.), *Comprehensive Handbook of Psychopathology* (pp. 145-163). New York: Plenum Press; 1993.
- Faley, R.H., Knapp, D.E., Kustis, G.A., Dubois, C.L.Z. Estimating the organizational costs of sexual harassment: The case of the US Army. *Journal of Business and Psychology*. 1999, Summer;13(4):461-484.
- Fatkin, L.T. 1987. Daily reports of distress: not for women only. *Work and Stress* 1(3):261-270.
- Firth-Cozens, J. Sources of stress in women junior house officers. *British Medical Journal*. 1990, July;301:89-91.
- Fitzgerald, L.E., V.J. Magley, F. Drasgow, and C.R. Waldo, C.R. 1999. Measuring sexual harassment in the military: the sexual experiences questionnaire (SEQ-D0D). *Military Psychology* 11(3):243-263.
- Fletcher BC. 1991. *Work, stress, disease, and life expectancy*. New York: Wiley.

- Foraker, B.M., Michael, W.B. Reliability and Construct Validity of the Dimensions of Self-Concept (DOSC)-Form W Measure for An Air Force Sample. *Education and Psychological Measurement*. 1994, Summer;54(2):409-417.
- Freeman, S.M., and M. Bisesi. 1988. Women and workplace stress. *AAOHN Journal* 36(6):271-275.
- George KM. 1988. Work stress and social support: toward a better understanding of sex differences. *Dissertation Abstracts International*. 50(10-B):4816. (University Microfilms No. AAD89-20387).
- George, LK, D.G. Blazer, D.C. Hughes, and N. Fowler. 1989. Social support and the outcome of major depression. *British Journal of Psychiatry* 154:478-485.
- Gillespie, BL, Eisler, RM. Development of the Feminine Gender Role Stress Scale: A Cognitive-Behavioral Measure of Stress, Appraisal, and Coping for Women. *Behavior Modification*. 1992;16(3):426-438.
- Goldberg D. The general health questionnaire. 1972. *Psychological well being*. New York: Oxford University Press 139-151.
- Goldberg, D.P., and V.F. Hillier. 1979. A scaled version of the General Health Questionnaire. *Psychological Med* 9:139-145.
- Greenglass, E.R. 1985. An interactional perspective on job related stress in managerial women. *The Southern Psychologist* 2(4):42-48.
- Greenglass, E.R. 1985. Psychological implications of sex bias in the workplace. *Academic Psychology Bulletin* 7:227-240.
- Greenglass ER. 1988. Type A behavior and coping strategies in female and male supervisors. *Applied Psychology* 37(3):271-288.
- Gutierrez, LM. 1994. Beyond Coping: An Empowerment Perspective on Stressful Life Events. *Journal of Sociology and Social Welfare* 21(3):201-219.
- Hammer, J.S., Mathews, J.J., Lyons, J.S., Johnson, N.J. Occupational stress within the paramedic profession: an initial report of stress levels compared to hospital employees. *Annals of Emergency Medicine*. 1986;15(1):536-539.
- Hanklin, C.S., Skinner, K.M., Sullivan, L.M., Miller, D.R., Frayne, S., & Tripp, T.J. Prevalence of depressive and alcohol abuse symptoms among women VA outpatients

who report experiencing sexual assault while in the military. *Journal of Traumatic Stress*. 1999;12(4):601-612.

Heim, E. Job Stressors and Coping in Health Professions. *Psychotherapy Psychosomeditical*. 1991;55:90-99.

Hendrix, W.H., B.A. Spencer, and G.S. Gibson. 1994. Organizational and extra-organizational factors affecting stress, employee well-being, and absenteeism for male and females. *Journal of Business and Psychology* 9(2):103-128.

Hobfoll, S.E. Conservation of resources: a new attempt at conceptualizing stress, *American Psychology* 44:513.

Hoiberg, A. Sex and occupational differences in hospitalization rates among Navy enlisted personnel. *Journal of Occupational Medicine*. 1980;22:685-690.

Hoiberg, A., White, J.F. *Health Status of Women in the Armed Forces*. Report No. 89-37 Naval Health Research Center, San Diego, 1989. Messersmith-Heroman, K., Heroman, W.M., Moore, T.R. Pregnancy outcome in military and civilian women. *Military Medicine*. 1994, Aug, 159(8):577-579.

Holmes, T.H., and R.H. Rahe. 1976. The social readjustment ratings scale. *Journal of Psychosomatic Research* 11:213.

Hourani, L.L., and H. Yuan. 1999. The mental health status of women in the Navy and Marine Corps: preliminary findings from the perception of wellness and readiness assessments. *Military Medicine* 164:174-181.

Houston, B.K., D.S. Cates, and K.E. Kelly. 1992. Job stress, psychosocial strain, and physical health problems in women employed full-time outside the home and homemakers. *Women Health* 19(1):1-27.

Ismail, K., N. Blatchley, M. Hotopf, L. Hull, I. Plamer, C. Unwin, A. David, and S. Wessely. 2000. Occupational risk factors for ill health in Gulf veterans of the United Kingdom. *Journal of Epidemiological Community Health* 54:834-838.

James, G.D., Cates, E.M., Pickering, T.G., Laragh, J.H. Parity and Perceived Job Stress Elevate Blood Pressure in Young Normotensive Working Women. *American Journal of Hypertension*. 1989;2:637-639.

Jennings, B.M. Stress, Locus of Control, Social Support, and Psychological Symptoms among Head Nurses. *Research in Nursing and Health*. 1990;13:393-401.

Kales, Soldatos, and Kales. 1987. Sleep disorders: insomnia, sleepwalking, night terrors, nightmares, and enuresis. *Annals of Internal Medicine* 106:582-92.

Kandel, D.B., M. Davies, and V.H Raveis. 1985. The stressfulness of daily social roles for women: marital, occupational and household roles. *Journal of Health & Social Behaviors* 26(1):64-78.

Kanner, A.D., J.C. Coyne, C. Schaefer, and R.S. Lazarus. 1981. Comparison of two modes of stress measurement: daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine* 4(1):1-39.

Karasek, R. T., B. Gardell, B., and J. Lindell, 1987. Work and non-work correlates of illness and behavior in male and female Swedish white collar workers. *Journal of Occupational Behaviour* 8:187-207.

Katz, 1995.

Keane TM, Gerard RJ, Lyons JA, Wolfe J. The interrelationship of substance abuse and posttraumatic stress disorder: Epidemiological and clinical considerations. In Galanter M (Ed.), *Alcoholism, Volume 6*. New York: Plenum Press; 1988.

Kelley, M.L. 1994. The effects of military-induced separation on family factors and child behavior. *American Journal of Orthopsychiatry* 64(1):103-111.

Kelley, M.L. 1994. Military-induced separation in relation to maternal adjustment and children's behaviors. *Military Psychology* 6(3):163-176.

Kelley, M.L., P.A. Herzog-Simmer, and M.A. Harris. 1994. Effects of military-induced separation on the parenting stress and family functioning of deploying mothers. *Military Psychology* 6920:125-138.

Kelner, M., and C. Rosenthal. 1986. Postgraduate medical training, stress, and marriage. *Canadian Journal of Psychiatry* 31:22-24.

Kessler and McLeod, 1985.

Killien, M., Brown, M.A. Work and Family Roles of Women: Sources of Stress and Coping Strategies. *Health Care for Women International*. 1987;8(2/3):169-184.

King, D.W., L.A. King, D.W. Foy, and D.M. Gudanowski. 1996. Prewar factors in combat-related posttraumatic stress disorder: structural equation modeling with a national sample of female and male Vietnam veterans. *Journal of Consulting and Clinical Psychology* 64(3):520-531.

King, D.W., L.A. King, D.M. Gudanowski, and D.L. Vreven. 1995. Alternative representations of war zone stressors: relationships to posttraumatic stress disorder in male and female Vietnam veterans. *Journal of Abnormal Psychology* 104(1):184-196.

Knudsen et al., 1997.

Kocher, K.M. & Thomas, G.W. Retaining army nurses: A longitudinal model. *Research in Nursing & Health*. 1984;59-65.

Kulka, R.A., J.A. Fairbank, B.K. Jordan, and D.S. Weiss. 1990. *Trauma and the Vietnam war generation*. New York: Brunner/Mazel.

Lawrence, C.L. Female police officers: Relationship between social support, occupational stress and strain. *Dissertation Abstracts International*. 1986;47(05-B):2171. (University Microfilms No. AAD86-16487).

Kushnir, T., and R. Kasan. 1992. Major sources of stress among women managers, clerical workers, and working single mothers: demands vs. resources. *Public Health Review* 20:215-229.

Landerman, R., L.K. George, R.T. Campbell, and D.G. Blazer. 1989. Alternative models of the stress buffering hypothesis. *American Journal of Community Psychology* 17(5):625-642.

Lawrence, C.L. 1986. Female police officers: relationship between social support, occupational stress and strain. *Dissertation Abstracts International* 47(05-B):2171. (University Microfilms No. AAD86-16487).

Lazarus, R. and S. Folkman. 1984. *Stress, appraisal, and coping*. New York: Springer.

Lazarus, R.S., A. DeLongis, S. Folkman, and R. Gruen. 1985. Stress and adaptational outcomes. *American Psychologist* 40(7):770-779.

Lee, T.W. & Maurer, S.D. The Effects of Family Structure on Organizational Commitment, Intention to Leave and Voluntary Turnover. *Journal of Managerial Issues*. 1999, Winter; XI(4):493-511.

Lee, T.W. & Maurer, S.D. The Effects of Family Structure on Organizational Commitment, Intention to Leave and Voluntary Turnover. *Journal of Managerial Issues*. 1999, Winter; XI(4):493-511.

- Leiter, M.P., Clark, D., Durup, J. Distinct models of burnout and commitment among men and women in the military. *Journal of Applied Behavior Science*. 1994;30(1):63-82. 1990;13:701-711.
- Lesserman, J., Li Zhiming, Y.J.B. Hu, and D.A. Drossman. 1998. How multiple types of stressors impact on health. *Psychosomatic Medicine* 60:175-181.
- Locke, E.A. 1983. The nature and causes of job satisfaction. In *Handbook of industrial and organizational psychology*, M.D. Dunnette, editor. New York: Wiley.
- Lowe, G.S., Northcott, H.C. The Impact of Working Conditions, Social Roles, and Personal Characteristics on Gender Differences in Distress. *Work and Occupation*. 1988, Feb, 15(1):55-77.
- Lyons, T.J. Women in the Military Cockpit. *Occupational and Environment Health Directorate*, Brooks Air Force Base, Texas. June, 1991, AL-TR-1991-0068.
- Magann, E.F. & Nolan, T.E. Pregnancy Outcomes in an Active-Duty Population. *Obstetrics gynecology*. 1991, September;78(3, Part 1):391-393.
- Magley, V.J., Waldo, C.R, Drasgow, F., Fitzgerald, L.F. The impact of sexual harassment on military personnel: Is it the same for men and women? *Military Psychology*. 1999;11(3):283-302.
- Markenson, G., Raez, E. Female Health Care during Operation Desert Storm: The Eighth Evacuation Hospital Experience. *Military Medicine*. 1992, Nov;157:610-613.
- Marsden, M.A. 1991. Sex-role attributes, mental health, and job satisfaction among enlisted Army women in traditional and nontraditional military units. *National Journal of Sociology* 5(1):81-89.
- Martin, J.K., P.M. Roman, and T.C. Blum. 1996. Job stress, drinking networks, and social support at work: a comprehensive model of employees' problem drinking behavior. *Sociological Quarterly* 37(4).
- Martindale, M. 1990. *Sexual harassment in the military: 1988*. Arlington, Virginia: Defense Manpower Data Center.
- Maslach, C., and S.E. Jackson. 1985. The role of sex and family variables in burnout. *Sex Roles* 12:837-851.
- Mastekaasa, A. & Olsen, K.M. Gender, absenteeism, and job characteristics. *Work and Occupations*. 1998, May;25(2):195-228.

Matteo, S. The Effect of Job Stress and Job Interdependency on Menstrual Cycle Length, Regularity and Synchrony. *Psychoneuroendocrinology*. 1987;12(6):467-476.

Mayhew, J.L., Salm, P.C. Gender differences in anaerobic power tests. *European Journal of Applied Physiology*. 1990;60:133-138.

Mays, V.M., L.M. Coleman, and J.S. Jackson. 1996. Perceived race-based discrimination, employment status, and job stress in a national sample of black women: implications for health outcomes. *Journal of Occupational Health Psychology* 1(3):319-329.

McCabe, C.J., Thomas, K.J., Brazier, J.E., Coleman, P. Measuring the mental health status of a population: a comparison of the GHQ-12 and the SF-36 (MHI-5). *British Journal of Psychiatry*. 1996, Oct;169(4):516-521.

McCarroll, J.E., Ursano, R.J., Fullerton, C.S., & Lundy, A. Traumatic stress of a wartime mortuary: Anticipation of exposure to mass death. *Journal of Nervous Mental Disorders*. 1993;181(9):545-551.

McCarroll, J.E., Ursano, R.J., Ventis, W.L., Fullerton, C.S., Oates, G.L., Friedman, H., Shean, G.D., Wright, K.M. Anticipation of handling the dead: Effects of gender and experience. *British Journal of Clinical Psychology*. 1993;32:466-468.

McNeary, A.M. and T.S. Lomenick. 2000. Military duty: risk factor for preterm labor? A review. *Military Medicine* 165:612-615.

Messersmith-Heroman, K., Heroman, W.M., Moore, T.R. Pregnancy outcome in military and civilian women. *Military Medicine*. 1994, Aug, 159(8):577-579.

Milroy, R. 1991. Observations on stress reactions as seen in Naval Reserve Fleet Hospital training evolutions. *Military Medicine* 156(4):166-168.

Misner, T.R., Bell, M.R., O'Brien, D.E. *Health Status of Women in the Army*. Fort Sam Houston, TX, Health Services Command, U.S. Army Health Care Studies and Clinical Investigation Activity; 1987.

Montgomery, I., Trinder, J., Paxton, S., Harris, D., Fraser, G., Colrain, I. Physical exercise and sleep: the effect of the age and sex of the subjects and type of exercise. *ACTA Physiologica Scandinavica*. 1988:133 Supplementum 574:36-40.

Moore, B.L. African-American women in the U.S. military. *Armed Forces & Society*. 1991;17(3):363-384

Markenson, G., Raez, E. Female Health Care during Operation Desert Storm: The Eighth Evacuation Hospital Experience. *Military Medicine*. 1992, Nov;157:610-613.

Marsden, M.A. 1991. Sex-role attributes, mental health, and job satisfaction among enlisted Army women in traditional and nontraditional military units. *National Journal of Sociology* 5(1):81-89.

Martin, J.K., P.M. Roman, and T.C. Blum. 1996. Job stress, drinking networks, and social support at work: a comprehensive model of employees' problem drinking behavior. *Sociological Quarterly* 37(4).

Martindale, M. 1990. *Sexual harassment in the military: 1988*. Arlington, Virginia: Defense Manpower Data Center.

Maslach, C., and S.E. Jackson. 1985. The role of sex and family variables in burnout. *Sex Roles* 12:837-851.

Mastekaasa, A. & Olsen, K.M. Gender, absenteeism, and job characteristics. *Work and Occupations*. 1998, May;25(2):195-228.

Matteo, S. The Effect of Job Stress and Job Interdependency on Menstrual Cycle Length, Regularity and Synchrony. *Psychoneuroendocrinology*. 1987;12(6):467-476.

Mayhew, J.L., Salm, P.C. Gender differences in anaerobic power tests. *European Journal of Applied Physiology*. 1990;60:133-138.

Mays, V.M., L.M. Coleman, and J.S. Jackson. 1996. Perceived race-based discrimination, employment status, and job stress in a national sample of black women: implications for health outcomes. *Journal of Occupational Health Psychology* 1(3):319-329.

McCabe, C.J., Thomas, K.J., Brazier, J.E., Coleman, P. Measuring the mental health status of a population: a comparison of the GHQ-12 and the SF-36 (MHI-5). *British Journal of Psychiatry*. 1996, Oct;169(4):516-521.

McCarroll, J.E., Ursano, R.J., Fullerton, C.S., & Lundy, A. Traumatic stress of a wartime mortuary: Anticipation of exposure to mass death. *Journal of Nervous Mental Disorders*. 1993;181(9):545-551.

McCarroll, J.E., Ursano, R.J., Ventis, W.L., Fullerton, C.S., Oates, G.L., Friedman, H., Shean, G.D., Wright, K.M. Anticipation of handling the dead: Effects of gender and experience. *British Journal of Clinical Psychology*. 1993;32:466-468.

McNeary, A.M. and T.S. Lomenick. 2000. Military duty: risk factor for preterm labor?  
A review. *Military Medicine* 165:612-615.

Messersmith-Heroman, K., Heroman, W.M., Moore, T.R. Pregnancy outcome in military and civilian women. *Military Medicine*. 1994, Aug, 159(8):577-579.

Milroy, R. 1991. Observations on stress reactions as seen in Naval Reserve Fleet Hospital training evolutions. *Military Medicine* 156(4):166-168.

Misner, T.R., Bell, M.R., O'Brien, D.E. *Health Status of Women in the Army*. Fort Sam Houston, TX, Health Services Command, U.S. Army Health Care Studies and Clinical Investigation Activity; 1987.

Montgomery, I., Trinder, J., Paxton, S., Harris, D., Fraser, G., Colrain, I. Physical exercise and sleep: the effect of the age and sex of the subjects and type of exercise. *ACTA Physiologica Scandinavica*. 1988:133 Supplementum 574:36-40.

Moore, B.L. African-American women in the U.S. military. *Armed Forces & Society*. 1991;17(3):363-384

Moskos, C.C., and F.R. Wood, editors. 1988 *The military: More than just a job?* Washington, DC.: Pergamon-Brassey.

Muntaner, C., Anthony, J.C., Crum, R.M., Eaton, W.E. Psychosocial Dimensions of Work and the Risk of Drug Dependence among Adults. *American Journal of Epidemiology*. 1995;142(2):183-190

Murdoch, M., Nichol, K.L. Women Veterans Experiences with Domestic Violence and With Sexual Harassment While in the Military. *Archives of Family Medicine*. 1995, May;4:411-418.

Nathanson, C.A. Illness

Nice, F.J. Professional and Organizational Values of Male and Female US Public Health Service Commissioned Officers. *Military Medicine*. 1994, Nov;159:693-698.

Nice, D.S. & Hilton, S. Sex differences and occupational influences on health care utilization abroad U.S. Navy ships. *Military Psychology*. 1994; 6(2):109-123.

Norman., E.M. Post-traumatic stress disorder in military nurses who served in Vietnam during the war years 1965-1973. *Military Medicine*. 1988;153(5):238-242.

Norwood, S.L. 1996. The social support Apgar: instrument development at testing. *Research Nursing Health* 19(2):143-152.

Ott J. Women Vietnam Veterans. In Sonnenberg SM, Blank AS, Talbott JA (Eds.), *The trauma of war: Stress and recovery in Vietnam veterans*. Washington, DC: American Psychiatric Press Inc.; 1985.

Paul, E.A. & O'Neill, J. "American nurses in Vietnam: Stressors and aftereffects. *American Journal of Nursing*. 1986;86(5):526.

Perconte, S.T., A.T. Wilson, E.B. Pontius, A.L. Dietrick, and K.J. Spiro. 1993. Psychological and war stress symptoms among deployed and non-deployed Reservists following the Persian Gulf War. *Military Medicine* 158:516-521.

Perkins, D.V. The assessment of stress using life events scales. In L. Goldberger and S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 320-331). New York: The Free Press; 1982.

Pierce, P.F. 1998. Retention of Air Force women serving during Desert Shield and Desert Storm. *Military Psychology* 10 (3):195-213.

Pittman, J.F., Orthner, D.K. Gender differences in the prediction of job commitment. *Journal Social Behavior Personality*. 1988;3(4):227-248.

Pokorny, A.D., B.A. Miller, and H.B. Kaplan. 1972. The brief MAST: a shortened version of the Michigan Alcoholism Screening Test. *American of Journal Psychiatry* 129(3):342-345.

Pretty, G.M.H, McCarthy, M.E., Catano, V.M. Psychological environments and burnout: Gender considerations within the corporation. *Journal of Organizational Behavior*.

Pryor, J.B. The Psychosocial Impact of Sexual Harassment on Women in the Military. *Basic and Applied Social Psychology*. 1995;17(4):581-603.

Quinn et al., 1993.

Redman, S., G.R. Webb, D.J. Hennrikus, and J.J. Gordon. 1991. Sanson-Fisher, R.W. The effects of gender on diagnosis of psychological disturbance. *Journal of Behavioral Medicine* 14(5):527-540.

Regier et al., 1984.

Revicki, D.A., A.W. Wu, and M.I. Murray. 1995. Change in clinical status, health status, and health utility outcomes in HIV-infected patients. *Med.Care* 33(4, Supplement):AS173-82.

Robinson, G.E., Stewart, D., Borsook, C. The Woman Psychiatrist in Residency and Practice. *Psychological Journal of University of Ottawa*. 1986;11(1):10-14.

Rosen, L.N., and L. Martin. 1998. Predictors of tolerance of sexual harassment among male U.S. Army soldiers. *Violence Against Women* 4(4):491-504.

Rosen, L.N., and L. Martin. 1998. Psychological effects of sexual harassment, appraisal of harassment, and organizational climate among U.S. Army soldiers. *Military Medicine* 163(2):63-67.

Rospenda, K.M., J. Halpert, and J.A. Richman. 1994. Effects of social support on medical students performances. *Academic Medicine* 69(6):496-500.

Rossi, A.M. & Lubbers, C.A. Stressed at Work: Identification of Physiological Responses to Occupational Stressors. *AAOHN Journal*. 1989, Jul;37(7):258-264.

Russell, M., and G.C.L. Davey. 1993. The relationship between life event measures and anxiety and its cognitive correlates. *Personal Individual Differences* 14(2):317-322.

Saroja, K. I., K. Kasmini, S. Muhamad, and G. Zulkifli. 1995. Relationship of stress, experienced by rescue workers in the highland towers condominium collapse to probably risk factors—a preliminary report. *Medical Journal of Malaysia* 50(4):326-329.

Schafer, J.L. 1997. *Analysis of incomplete multivariate data*. New York: Chapman and Hall.

Schei, E. 1994. A strengthening experience? Mental distress during military service: a study of Norwegian army conscripts. *Social Psychiatry and Psychiatric Epidemiology* 29(1):40-45.

Schnaier, J.A. 1986. A study of women Vietnam veterans and their mental health adjustment. In Figley, C.R. (Ed.), *Trauma and its wake. Vol. II: Traumatic stress theory, research, and intervention*. New York: Brunner/Mazel..

Schonfeld, I.S. A Longitudinal Study of Occupational Stressors and Depressive Symptoms in First-Year Female Teachers. *Teaching and Teacher Education*. 1992;8(2):151-158.

Schumm, W.R., A.P. Jurich, J.A. Stever, D. Sanders, C. Castelo, and S.R. Bollman. 1998. Attitudes of Reserve component service members regarding the consequences of frequent overseas deployments. *Psychological Reports* 83:983-989.

Scurfield, R.M., Tice, S.N. Interventions with medical and psychiatric evacuees and their families. From Vietnam through the Gulf War. *Military Medicine*. 1992;157(2):88-97.

Seyle H. 1956. *The stress of life*. New York: McGraw-Hill.

Shrier, D.K. Sexual Harassment and Discrimination: Impact on Physical and Mental Health. *New Jersey Medicine*. 1990, February;87:105-107.

Simon, R.W. 1992. Parental role strains, salience of parental identity and gender differences in psychological distress. *Journal of Health & Social Behavior* 33(1):25-35.

Snapp, M.B. 1992. Occupational stress, social support, and depression among Black and White professional-managerial women. *Women and Health* 18(1):41-79.

Solomon, Z., M. Waysman, and M. Milulincer. 1990. Family functioning, perceived societal support, and combat-related psychopathology: the moderating role of loneliness. *Journal of Social and Clinical Psychology* 9(4):456-472.

Spelten, E., J. Barton, and S. Folkard. 1993. Have we underestimated shiftworkers' problems? Evidence from a "reminiscence" study. *Ergonomics* 36(1-3):307-312.

Spielberger, C.D., and E.C. Reheiser. 1994. The job stress survey: measuring gender differences in occupational stress. *Journal of Social Behavior and Personality* 9(2):199-218.

Splonskowski, J.M., Twiss, J.J. Maternal coping adaptations, social support, and transition difficulties to parenthood of first-time civilian and military mothers. *Military Medicine*. 1995, Jan;160(1):28-32.

Steen, N., Firth, H.W.B., & Bond, S. Relation Between Work Stress and Job Performance in Nursing: A Comparison of Models. *Structural Equation Modeling*. 1998;5(2):125-142.

Stellman, J.M. 1977. *Women's work, women's health: myths and realities*. New York: Pantheon Books.

Stephens, A., Cropley, M., & Joeekes, K. Job Strain, blood pressure and response to uncontrollable stress. *Journal of Hypertension*. 1999;17(2):193-200.

Stewart, A.L., and J.E. Ware, Jr. 1992. *Measuring functioning and well-being: the Medical Outcomes Study approach*. Durham and London: Duke University Press.

Stewart, A.L., R.D. Hays, and J.E. Ware, Jr. 1988. The MOS short-form general health survey: reliability and validity in a patient population. *Medical Care* 26(7):724-735.

Stewart, A.L., R.D. Hayes, and J.E. Ware Jr, J.E. In *Health Concept Methods*. Methods of Constructing Health Measures, 1996:67-85.

Stiehm, J.H. 1998. Army opinions about women in the Army. *Gender Issues* (DK volume, Summer):88-98.

Sutker, P.B., Uddo, M., Brailey, K., Allain, A.N. & Errera, P. Psychological symptoms and psychiatric diagnoses in Operation Desert Storm troops serving graves registration duty. *Journal of Traumatic Stress*. 1994;7(2):159-171.

## APPENDICES

**APPENDIX A**  
**INFORMATION SHEET**

**INFORMATION SHEET FOR THE STUDY OF WOMEN IN THE ARMY  
WALTER REED ARMY MEDICAL CENTER**

**GOAL**

This study is being conducted by the Research Triangle Institute (RTI), a private, not-for-profit research organization. The study is being funded by a grant from the U.S. Army Medical Research, Development, Acquisition, and Logistics Command. **The purpose and primary goal of the study is to help us better understand what is most stressful for Army women in their military lives, and what they find most helpful in carrying out their duties and living fulfilling lives.** Based on the findings of the research, RTI will make recommendations to the Army about how to reduce stress and its effects and improve morale and performance for active duty and Reserve Army women.

You are requested to assist with this study by completing an anonymous survey. An RTI staff member will be in the room with you in case you have any questions but will not observe your responses to the questions in the questionnaire. The survey usually takes about 1 hour to complete. The survey includes questions about difficulties women soldiers and officers face, and the things they find most helpful to them in their lives and duties in the Army. It also asks a few questions about women's lives before they entered the Army.

**VOLUNTARY PARTICIPATION**  
**WOMEN'S PARTICIPATION IS COMPLETELY**  
**VOLUNTARY.**

We will not tell your Commander, supervisor, or anyone at the installation if you choose to participate or not. Your participation is important to the study, but you are free to leave if they do not want to complete the survey. You may also refuse to participate at any later point without suffering any penalty or losing any benefits to which you are entitled. If you choose to complete the survey, **YOU HAVE THE RIGHT TO DECLINE TO ANSWER ANY OR ALL QUESTIONS IN THE SURVEY.**

**ANONYMITY**

The survey is anonymous. **YOU SHOULD NOT WRITE YOUR NAME OR ANY OTHER IDENTIFYING INFORMATION ON THE SURVEY.**

**RISKS**

The survey involves answering questions about yourself and your military experience. We think there will be minimal risk to women who participate. It is possible that a few questions may bring up memories from the past which would make women upset or sad. You may feel that some questions are sensitive or that some of them are offensive to you. If you feel upset about the sensitive questions in the survey and would like counseling or need to talk to someone please follow the usual procedures for obtaining counseling for mental health problems at your installation.

**QUESTIONS**

If there are questions about the study, please call Dr. Kathleen Jordan at RTI, 1-800-334-8571, ext. 6410. If you have any questions about your rights as a research subject, you may call Dr. Wendy Visscher at RTI, 1-800-334-8571, ext. 6028.

USAR - 8/13/98

**APPENDIX B**

**FAQ SHEET**

**Survey of Stressors and Their Impacts on Women in the Army and Army Reserves**  
***Frequently Asked Questions***

**Why is this study being conducted?**

The purpose of the study is to help us better understand how women's Army and Reservist duties and experiences affect their mental and physical well-being, their performance, and their lives outside of work. We are interested in both positive and negative experiences. We want to better understand what is most stressful for Army and Reservist women in their military lives, and what they find most helpful in carrying out their duties and living fulfilling lives.

**What is this study about?**

This study will obtain information on a variety of work and life experiences of Army and Reservist women. We will be asking you questions about your life experiences including emotions, activities, health, and work. In addition, stress is one of the main topics for this study, and it is important for us to know what kinds and amounts of stress women like you feel in their everyday life. These questions will help us know more about what you experience in your life as military women.

**Who is doing this study?**

The Research Triangle Institute (RTI) is conducting this study. We are a civilian, not-for-profit research organization. The study is being funded by a grant from the U.S. Army Medical Research, Development, Acquisition, and Logistics Command. Although the researchers at RTI are civilians, we have consulted with active-duty and retired military women in designing this study.

**Why should I participate?**

There will be no direct benefits to you from answering our questions. However, you will be helping us to understand the experiences of women in the military. There could be benefits to Army and Reservist women as a result of recommendations coming out of the study. This study is one of the first of its kind, so the answers you provide will help us to learn about a very important topic that has gotten little attention until now.

**Are there any risks involved with participating in this study?**

The survey involves answering questions about themselves and their military experience. We think there will be minimal risk to women who participate. It is possible that a few questions may bring up memories from the past which would make women upset or sad.

**Will my supervisor or any Army personnel find out what my answers are?**

We at RTI take confidentiality very seriously. Your name or social security number will not be printed or written on the survey that you fill out, so there will be no link between you and the information you give us. No one except authorized staff at RTI working on this project will ever see the completed survey forms. In addition, no results from individual women will be reported. Rather, the results from the study will be reported in the form of statistics from the entire group of Army and Reservist women surveyed. We will be writing a summary report to the Army that combines the responses from all participants; no one individual or Unit will be identified.

**Do I have to participate and answer all of the questions?**

Your participation is strictly voluntary. Whether you choose to participate or not will have no affect on your job in the military. If you participate, which we hope you will, you may refuse to answer any question, and you may refuse to participate in the rest of the study at any point.

**Who can I call if I have questions?**

For questions about the study, please contact Dr. Kathleen Jordan at RTI at 1-800-334-8571, or about your rights as a study participant, call Dr. Barbara Moser at RTI at 1-800-334-8571.

**APPENDIX C**  
**IRB APPROVAL**

Research Triangle Institute  
P.O. Box 12194  
Research Triangle Park, NC 27709-2194  
Multiple Project Assurance No. M-1496

INSTITUTIONAL REVIEW BOARD NOTICE OF APPROVAL  
IRB# 03XM

PROJECT LEADER:

B. Kathleen Jordan

TITLE: The Nature & Outcome for Women of Stressors Associated with Military Life

SPONSOR AGENCY: US Army Medical Research PROTOCOL DATE: 3/13/97

RTI PROJECT NUMBER: 53U-6729 or PROPOSAL NUMBER: \_\_\_\_\_  
(If preaward)

NATURE OF REVIEW:  
(check one) FULL  EXPEDITED \_\_\_\_\_ EXEMPT \_\_\_\_\_

MEETING DATE: 3/18/97

TYPE OF APPROVAL:

- PRELIMINARY. SCHEDULE NEXT REVIEW PRIOR TO INVOLVEMENT OF HUMAN SUBJECTS.  
 PRETEST/PILOT TEST. SCHEDULE NEXT REVIEW PRIOR TO FULL IMPLEMENTATION.  
 FULL IMPLEMENTATION.  
 RENEWAL.  
 AMENDMENT DATE: OTHER: Focus Groups

Please note the following requirements:

**PROBLEMS OR ADVERSE REACTIONS:** If problems in treatment of human subjects or unexpected adverse reactions occur as a result of this study, you must notify the IRB Chairperson immediately.

**CHANGES IN PROTOCOL:** If there are significant changes in procedures or study protocol, you must notify the IRB Chairperson before they are implemented.

**RENEWAL:** You are required to apply for renewal of approval at least annually for as long as the study is active. Your next review date should be on or before 3/18/98.

  
IRB # 03XM Chairperson

March 18, 1997  
Date

Linda S. Sheldon, Ph.D.  
Print or Type Name

cc:  Copy of approved Informed Consent attached.  
Project Leader  
Office of Research Contracts: J. W. Rintoul

RTI.IRB 1/93

**APPENDIX D**  
**FOCUS GROUP PROTOCOL**

## **Topic Guide for "Nature and Outcomes for Women of Stressors Associated with Military Life" Focus Groups**

### Content Areas

I. Introduction

II. Sources of Stress

1. Occupational Stressors
2. Family Stressors
3. Conclusion

III. Mediating Factors

IV. Outcomes

V. Conclusion

## **INTRODUCTION AND INFORMED CONSENT**

Hello, my name is \_\_\_\_\_ and this is (OBSERVER). We are from Research Triangle Institute and we are working on a research project funded by the Army Medical Research, Development, Acquisition, and Logistics command. The project focuses on the stressors faced by women in the Army. You've been invited here so we could ask you to help us with an early stage of the study. We are holding informal group discussions with Army women in several locations to learn about the most common sources of stress for women in the Army. We are interested in all kinds of stress and major hassles, such as things related to your occupation, to your family, to the environment you work in, or any other stresses or daily hassles you put up with in the Army. Our goal in this phase of research is to gather information to develop a questionnaire which will be administered to about 1600 Army women later this year. From these data, we will provide recommendations to the Army about the nature of stress for Army women and what might be done to minimize its effects.

Several of you will be requested to take part in a group discussion about various types of stress you experience. A few of you may be asked to complete a short written questionnaire instead.

I assure you that we will keep everything you say strictly confidential. Our goal is to collect information to develop a final questionnaire, not to gather or report any information about you, individually, or about your unit. We are here to learn what your lives are like. We are not members of the military ourselves. We know that as women, you face some of the same stressors as military men, but also some unique ones. We want our research to accurately reflect your voice, and that's why we're here. We hope you'll help us.

As you came in, we gave you a copy of the consent form. As I mentioned, we take confidentiality very seriously, and if you choose to participate, we ask you to do the same. If you choose to participate, we ask you to agree that you will not reveal to anyone what any other participant in the group said.

Let me stress that the fact that your commander asked you to report here in no way obligates you to take part in the group. You may feel free to leave now or at any time if you do not want to participate. We will not report to your commander or anyone else who did or did not participate.

We would very much like to compensate you for your help with the research, but unfortunately, the only thing allowed by federal regulations is these light refreshments. Please help yourselves.

Please take a moment now to read the consent form. If you have any questions, let me know. Your participation is very important to our study and your participation will be greatly appreciated, but If you do not want to participate, you may leave at this time.

**(PROVIDE AMPLE OPPORTUNITY FOR ANYONE WHO DOESN'T WANT TO PARTICIPATE TO LEAVE. THANK THEM FOR COMING.)**

We want everyone in the group to feel comfortable and speak openly in the discussion. Because we will be talking about all aspects of job-related stress, it may be awkward if either your supervisor or someone you directly supervise is in the room. If either your direct supervisor or someone who reports directly to you is in the room, please raise your hand now.

**(IDENTIFY RELATIONSHIPS. IF ONE WOMAN SUPERVISES MORE THAN ONE OTHER PARTICIPANT, ASK HER TO STEP INTO THE NEXT ROOM. IN ONE-TO-ONE SITUATIONS, USE THE BAG/BOX OF NUMBERED SLIPS TO DETERMINE WHO STAYS.**

**DRAW A NUMBER FROM THE BAG AND ASK WHICHEVER WOMAN'S CONSENT FORM NUMBER IS CLOSEST TO THE NUMBER DRAWN TO STEP**

**INTO THE NEXT ROOM. REPEAT THIS FOR AS MANY ONE-TO-ONE PAIRS AS ARE PRESENT IN THE GROUP.)**

**IF THERE ARE MORE THAN 12 PARTICIPANTS LEFT IN THE ROOM:** Because our group is so large, we're going to randomly select a few people to complete a written questionnaire rather than participating in the focus group. We'll do this by pulling numbers out of a bag. If I read your number, please step into the next room. **(PULL NUMBERS ONE BY ONE FROM THE BAG/BOX UNTIL ONLY 12 WOMEN ARE LEFT IN THE ROOM. THE RTI OBSERVER SHOULD BE IN THE NEXT ROOM LONG ENOUGH TO PASS OUT QUESTIONNAIRES AND GET THE GROUP STARTED COMPLETING THEM.)**

Does anyone have any questions about the consent form or anything I've said so far?

Before we get started, let me say that there are no right or wrong answers to the questions or topics I'll be raising. We hope everyone will voice their own opinions and experiences, whether or not they are shared by others in the group. We realize that different positions, occupations, and units have different levels and kinds of stress, and reporting on them doesn't reflect on you personally. We also realize that something stressful for one woman may not be stressful to another.

In addition, we don't want you to feel limited to talk only about your own personal experiences. If you know of experiences of other women in the military that are relevant to what we're discussing, please feel free to bring them up. We do ask you, however, not to reveal the name of the woman when you speak about someone other than yourself.

**(OBSERVER)** will be taking notes for our summary report. She will not be recording anyone's full name. So that she can be sure to record all the ideas mentioned, please speak one at a time and don't interrupt when another person is talking.

I'd like to start by going around the room and asking each person to say your first name, how long you've been in the military, and what your occupation is. **(FOR RESERVES, ASK THEM TO TELL US WHAT THEIR "REGULAR" JOB IS ALSO.)** Then, I'll ask several questions and ask anyone who wants to to answer or comment and we'll go from there. **(INDICATE WHICH PERSON SHOULD START THE INTRODUCTIONS.)**

Instructions/ Props	Content Script
<p>II. SOURCES OF STRESS</p> <p>1. Occupational Stressors</p>	<p>SOURCES OF STRESS</p> <p>Let's talk first about your job. Please think for a moment about your day-to-day life at work. We know that every occupation has stresses of one sort or another. Some of them can be the same regardless of the position you work in and others are unique to the type of work you do or the setting you're in. We'd like to hear about things you find stressful or unpleasant about your work life--whether it's loud machinery blasting in your ear all day or the inconvenient hours you're required to work or that the work is painfully boring or that you feel isolated with no one to talk to or that your job endangers your life or health--anything at all that makes your work life stressful. We're interested both in the major stressors and in the daily hassles.</p> <p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• Is there anything about your working environment that is stressful or unpleasant? Is it dangerous? Too cramped? Noxious fumes?</li> <li>• What about your work hours? Are they too long? Do you work shifts that are difficult for you?</li> <li>• What about the nature of your work itself? Is the work load manageable? It is interesting? Boring? Does it utilize your skills to the extent you'd like?</li> <li>• What about the clothing or equipment you use to do your job? Is it functional? Are you required to use equipment, clothing, procedures, or living quarters that are ill-suited for you as a woman?</li> <li>• Have any of you experienced injuries on the job? Was it a one-time occurrence or has it happened repeatedly? Did the injury happen (either totally or in part) because the task or activity you were doing was designed to be carried out by someone larger or for a man's body? What about the training routines you are required to participate in? Are you required to train differently or separately from the men? IF NO: Should you be? IF YES: Does that cause any problems?</li> </ul>

Instructions/ Props	Content Script
<p>1. Occupational Stressors (Cont.)</p>	<ul style="list-style-type: none"> <li>• Have any of you experienced injuries on the job? Was it a one-time occurrence or has it happened repeatedly? Did the injury happen (either totally or in part) because the task or activity you were doing was designed to be carried out by someone larger or for a man's body? What about the training routines you are required to participate in? Are you required to train differently or separately from the men? IF NO: Should you be? IF YES: Does that cause any problems?</li> <li>• What about the organizational structure in your unit? Are there frequent personnel changes that affect you? Are there policy or procedure or other changes that stress you or make you uneasy? Are positions being cut that affect you--by increasing your workload or putting your own status in jeopardy in some way?</li> <li>• Do you feel like you have enough control over your own work?</li> <li>• Are you paid enough to support yourself (and your family, if you have one)?</li> <li>• Are you responsible for overseeing or supervising other people? Does that cause stress or difficulty in some way?</li> <li>• What is it like socially? Is your supervisor supportive of you? Do you enjoy the people you work with--have people to talk to? Do you work all by yourself? Are you the only woman in your work area?</li> </ul> <p>IF HASN'T BEEN RAISED OR DISCUSSED ENOUGH: Do you think the stresses are felt equally by men and women? IF NO: How are they different?</p>

Instructions/ Props	Content Script
<p>1. Occupational Stressors (Cont.)</p>	<p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• physical demands (e.g., lifting heavy loads)</li> <li>• clothing/equipment not designed for women</li> <li>• getting the message (either overt or implicit) that "we don't want you here" or "you don't belong here"?</li> <li>• sexual harassment/attention to this issue brought on by recent disclosures/investigations</li> <li>• feel isolated from recreational activities or social discussions because you're a woman</li> <li>• unfair performance evaluations/being overlooked for promotions/discrimination</li> <li>• have to work harder or perform better than men to be considered "as good"</li> </ul> <p>Do you feel stressed when wondering "what if" you were sent to a conflict area? How often and under what circumstances do you feel this stress or worry?</p> <p>IF AT AN INSTALLATION WITH UNITS DEPLOYED AND THIS HASN'T ALREADY COME UP OR HASN'T BEEN DISCUSSED SUFFICIENTLY: How does being in a unit subject to deployment affect you? Even when you are not deployed, what additional stress or tension does it create?</p> <p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• constantly on "edge"</li> <li>• media reports stir up anxiety</li> <li>• during militarily tense times (when on "alert ") unable to plan vacations or family activities</li> <li>• arrangements for children/difficulties because of children</li> <li>• difficulties with marriage/primary relationship</li> </ul>

Instructions/ Props	Content Script
<p>1. Occupational Stressors (Cont.)</p>	<p>How many of you have ever been deployed?</p> <p><b>INSTRUCTION: LOOK FOR SHOW OF HANDS. IF NONE, SKIP NEXT TWO QUESTIONS.</b></p> <p>Were you subject to hostile fire or imminent danger?</p> <p>How are the things we've been talking about different in that setting?</p> <p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• harsh living conditions</li> <li>• extreme weather</li> <li>• surrounded by wounded or dying persons</li> <li>• witness to poor treatment of civilians in foreign countries</li> <li>• fear for own life</li> <li>• issues of living in a foreign culture (particularly a woman in a foreign country)</li> <li>• inadequate or ill-suited clothing or equipment</li> <li>• privacy and sanitation (housing; obtaining and disposing of tampons; obtaining birth control pills or devices, etc.)</li> <li>• boredom</li> <li>• food</li> <li>• mail</li> <li>• hot showers</li> </ul>

Instructions/ Props	Content Script
<p>1. Occupational Stressors (Cont.)</p>	<p>How many of you have ever had an overseas permanent change of station (PCS) other than for training or deployment?</p> <p><b>INSTRUCTION: LOOK FOR SHOW OF HANDS. IF NONE, SKIP NEXT QUESTION.</b></p> <p>Does that setting generate any additional stresses or hassles besides the ones we already talked about? Does it make any of them worse, or perhaps better in some way?</p> <p><b>PROBES, IF NEEDED:</b></p> <ul style="list-style-type: none"> <li>• harsh living conditions</li> <li>• extreme weather</li> <li>• surrounded by wounded or dying persons</li> <li>• witness to poor treatment of civilians in foreign countries</li> <li>• fear for own life</li> <li>• issues of living in a foreign culture (particularly a woman in a foreign country)</li> <li>• inadequate or ill-suited clothing or equipment</li> <li>• privacy and sanitation (housing; obtaining and disposing of tampons; obtaining birth control pills or devices, etc.)</li> <li>• boredom</li> <li>• food</li> <li>• mail</li> <li>• hot showers</li> </ul> <p><b>FOR RESERVES GROUP ONLY:</b> How does your other job interact with your role in the military? Are there often conflicting demands from the two? Is it hard to "transition" back and forth between them?</p>

Instructions/ Props	Content Script
<p>2. Family Stressors</p>	<p>IF FAMILY ISSUES HAVE ALREADY COME UP, MODIFY INTRO TO THIS SECTION ACCORDINGLY.</p> <p>I'd like to talk now about stresses or hassles related to your family and home life. We'd like to learn how being in the military affects your role as a parent or spouse or member of a couple. What stresses does being in the military place on these or other aspects of your home life?</p> <p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• time commitments</li> <li>• arrangements for sick children, school conferences, etc.</li> <li>• potential to be deployed</li> <li>• transitioning from work environment to home life</li> <li>• effects on the marriage</li> <li>• routine day care</li> </ul> <p>Either from your own experience or from other women you know, what extra stress is there for Army women who are also single moms?</p> <p>What about couples in which both persons are in the military? Are there extra stresses in the relationship or in the family because of this situation? Does it appear to be easier or harder than when only one person is in the military? What difficulties are there when only one partner is military?</p> <p>INSTRUCTION: IF AN INSTALLATION WITH DEPLOYED UNITS OR IF SOME GROUP MEMBERS HAVE EVER BEEN DEPLOYED:</p> <p>How does being in a deployment unit or actually being deployed affect your family life or primary relationship?</p>
<p>3. Conclusion on Stressors</p>	<p>We've talked about a lot of different kinds of stress and hassles that you've experienced as Army women. Please think back now to when you first joined the Army. What is stressful that you weren't expecting to be stressful when you signed up?</p> <p>INSTRUCTION: WAIT FOR COMMENTS;REPHRASE/REPEAT QUESTION AS NEEDED</p> <p>Which of the stressors we've talked about are most difficult to deal with?</p> <p>INSTRUCTION: WAIT FOR COMMENTS; REPHRASE/REPEAT QUESTION AS NEEDED</p>

Instructions/ Props	Content Script
<p>III. MEDIATING FACTORS</p>	<p>Now we'd like to hear what you do to reduce or relieve stress or "get over" the hassles. What makes you feel better when you're stressed out?</p> <p>We're interested in ways that you reduce both your physical stress and your emotional stress. What do you find helpful in this regard? How do you relax?</p> <p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• listening to music</li> <li>• taking a walk</li> <li>• going out with friends and having a good time</li> <li>• talking with coworkers about what's bothering you</li> <li>• watching TV or a movie</li> <li>• exercise</li> </ul> <p>When you feel stressed out by your job, what sustains you--that is, what keeps you coming to work and not calling in sick or quitting?</p> <p>Do you find that women in the military tend to deal with their stress differently than men in the military? How?</p> <p>When something is really bothering you, do you feel like you have people to talk to about it? Are they usually people in your work group or unit, or not in your work group or unit? In the military or not in the military? Are there limits to what you're able to discuss with people outside the military, because they "just don't understand what it's like?"</p> <p>For those who are married or in a long-term relationship, is your husband/partner supportive? Can you rely heavily on them?</p>

Instructions/ Props	Content Script
<p>IV. OUTCOMES (Cont.)</p>	<p>What about your co-workers? Do you get a lot of support from them? From your supervisor? From your chain of command?</p> <p>Do you find your work rewarding? What about it is most rewarding?</p> <p>We'd like to talk now about what tolls these stresses and hassle take upon you. Please comment either about your own experiences or other Army women you know.</p> <p>What happens to women either physically or emotionally as a result of the stress of the military?</p> <p>PROBE IF NEEDED. REMIND PARTICIPANTS PERIODICALLY THAT WE ARE INTERESTED IN THINGS THAT HAVE HAPPENED TO OTHER WOMEN AS WELL AS TO THEMSELVES.)</p> <p>Possible Problems:</p> <ul style="list-style-type: none"> <li>• What are the effects on your body?</li> <li>• Are you tired a lot?</li> <li>• Do you/they have backaches or other muscle or joint pains?</li> <li>• Do you/they have high blood pressure or heart problems?</li> <li>• Do you/they have stomach problems or get an upset stomach a lot? Ulcers?</li> <li>• Do you/they have trouble sleeping? Eating? Overeating?</li> <li>• Do you think these kinds of stressors and hassles can lead to headaches?</li> </ul> <p>How often and why do you go on sick call?</p> <p>What are the emotional effects?</p> <ul style="list-style-type: none"> <li>• Are you/they irritable or in a bad mood a lot?</li> <li>• Do you/they feel angry or "keyed up" a lot?</li> <li>• Do you/they feel anxious or nervous--like you can't relax?</li> <li>• Do you/they get depressed?</li> <li>• Are you/they unable to be a good parent or spouse?</li> <li>• Do they/you ever tend to "take it out" on someone else?</li> <li>• Post traumatic stress disorder?</li> </ul> <p>Do you know of any situations where the kinds of stresses we've been talking about led to alcohol or drug abuse? How often does that happen? What does the pattern look like?</p> <p>Given that Army women experience these stressors and it may have any of these various affects on them personally, how does that tend to affect their future or career in the military?</p> <ul style="list-style-type: none"> <li>• Don't like the army anymore; it wasn't what you expected</li> <li>• Don't do the job well because they're tired; physically unable; not trained to do it;</li> </ul>

Instructions/ Props	Content Script
<p>IV. OUTCOMES (Cont.)</p>	<ul style="list-style-type: none"> <li>• Do you/they feel anxious or nervous--like you can't relax?</li> <li>• Do you/they get depressed?</li> <li>• Are you/they unable to be a good parent or spouse?</li> <li>• Do you/they ever tend to "take it out" on someone else?</li> <li>• Post traumatic stress disorder?</li> </ul> <p>Do you know of any situations where the kinds of stresses we've been talking about led to alcohol or drug abuse? How often does that happen? What does the pattern look like?</p> <p>Given that Army women experience these stressors and it may have any of these various affects on them personally, how does that tend to affect their future or career in the military?</p> <p>Possible Probes:</p> <ul style="list-style-type: none"> <li>• Don't like the army anymore; it wasn't what you expected</li> <li>• Don't do the job well because they're tired; physically unable; not trained to do it; don't like the work</li> <li>• Miss a lot of work because of family obligations</li> <li>• Get burned out and don't do a good job</li> <li>• Not treated well by co-workers or boss</li> <li>• Seen as "weak," "unmotivated," or "a troublemaker"</li> <li>• Don't get promoted or recognized/rewarded in some way because of any of the above</li> </ul>
<p>V. CONCLUSION</p>	<p>We have talked about many kinds of hassles and stressors, about negative outcomes from stress and about factors which help you cope with stress. Have we missed anything related to these topics that you think is important--for example, types of stressors that we haven't mentioned?</p>

## V. CONCLUSION

This concludes our discussion for today. I want to thank all of you for your contribution to our research. There are two more quick things we'd like to do. **(PASS OUT "REMAINING ISSUES" SHEETS.)** First, please take a moment to read the sheet that is being passed to you and respond if you would like. It asks you to jot down any other thoughts you have about this topic that we didn't get to discuss today. If you are interested, it also asks you to provide your name and telephone number--first name only, please--if you would be willing to talk to one of our researchers one-on-one by telephone. It's fine if you don't want to do this. Please respond to either or both parts of this form, and put it in the box on your way out, even if it's blank.

While you're doing that, I'm going to circulate one additional piece of paper on which we'd like you to place a single "tally mark" next to the category that describes yourself under each heading. As we mentioned earlier, we do not want detailed information about any single participant in the group, but we would like to have an overall summary of how many in the group are mothers, how many have which types of occupations, and so on. As the sheet comes to you, please make one mark next to each of the categories that describes you.

**(CIRCULATE TALLY SHEET.)**

Thank you again for your help, and if you have any questions before you leave, please feel free to ask.

**APPENDIX E**

**FOCUS GROUP QUESTIONNAIRE  
NON PARTICIPANTS AND FIELD OFFICERS**

## STUDY OF STRESSORS EXPERIENCED BY ARMY WOMEN

As you read in the consent form, the purpose of the study is to help us better understand the types and impacts of any stress experienced by Army women. We realize that the amount and types of stress Army women may feel varies. If you experience little or no stress in your military life, we would like to hear about it. If you experience a lot of stress in your military life, we want to know about that too. We would appreciate your answering this short questionnaire so that we can get a better picture of Army women. Based on the findings of the research, RTI will make recommendations to the Army about how to reduce stress for military women or how to minimize its effects.

Instead of participating in one of the focus groups, we would like you to complete a short written questionnaire instead. The questionnaire asks about the same topics as the focus group discussion.

There are no right or wrong answers to these questions. We are interested in your opinion and experience.

The information you provide will be held in strict confidence. Do not write your name on the survey. We will only be reporting the results for the group as a whole and will not identify any individual participants. The results will be used to develop a questionnaire to measure the nature, degree, and impact of stressors for military women which will be administered to 1,600 Army and Army Reserve women.

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This study is being conducted by Research Triangle Institute under a grant funded by the U.S. Army. If you have any questions about this research project, you may contact the Dr. Kathleen Jordan, the Project Director, at 1-800-334-8571, ext. 6410. If you have any questions about your rights as a research participant, you may contact Linda Sheldon at 1-800-334-8571, ext. 6603.

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## ABOUT YOUR EXPERIENCE

1. What is your job in the Army (Army Reserves)?

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2. What level of stress are you experiencing now in your military life? (Please check one)

Very high

High

Moderate

Slight

None → Go to Question 13

3. There are things that some people find stressful about their work life. Thinking about your work life, please list the things you find the most stressful?

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4. Please describe how this stress affects your work life, personal life, and physical and mental health.

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5. There may be different things that women and men find most stressful about being in the military. Please list the people, situations, or experiences in your military life you think are more stressful for you than they would be for a man in your position.

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6. Please describe what you find to be the most stressful about being a woman in the Army.

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7. Please describe how this stress affects your work life, personal life, and physical and mental health.

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8. Being in the Army may also cause stress in the personal and family lives of some people. As a result of being in the Army, please list the things you find most stressful in your personal and family lives.

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9. Please describe how this stress affects your work life, personal life, and physical and mental health.

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10. Please describe what helps you cope with any stress or hassles you experience in either your work or personal life.

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11. Please list the types of people who tend to lower your feelings of stress in your work or personal life and how they do this (ex. friends, family, co-workers, supervisors, etc.).

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12. Please list the types of people who tend to raise your feelings of stress in your work or personal life, whether they mean to or not (ex. friends, family, co-workers, supervisors, etc.).

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### **ABOUT OTHER WOMEN IN THE MILITARY**

13. Please describe the kinds of things you have heard other Army women say are stressful about being in the Army.

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14. Do you think that women in the military use different ways of coping with stress than men do? If so, please describe how is it different.

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15. Please describe the effect these stresses and hassles have upon Army women you know.

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16. Please describe any other important stress-related issues Army women face that we have not asked about.

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17. Please describe the negative outcomes you see most often in fellow Army women who feel stressed.

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18. Please describe the positive outcomes you see most often in your fellow Army women who feel stressed.

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19. **FOR RESERVES GROUP ONLY:** Please describe any different stresses that Army Reservists face compared to full-time military personnel.

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**APPENDIX F**  
**CONSENT FORM**  
**FOCUS GROUP/SHORT QUESTIONNAIRE**

**CONSENT TO PARTICIPATE IN A FOCUS GROUP FOR A STUDY  
ABOUT THE NATURE AND EFFECTS OF STRESSORS ON ARMY WOMEN**

The "NAME OF STUDY" is being conducted by the Research Triangle Institute at army bases throughout the continental U.S. The investigators on the this study are Drs. Kathleen Jordan, Juesta Caddell, John Fairbank, and William Schlenger.

The purpose of the research is to examine the changing roles of women in the Army to help us better understand the types of psychosocial, environmental and other stressors women in the Army are subject to. It is also designed to assess the impact of such stressors on army women. The U.S. Army Medical Research, Development, Acquisition, and Logistics Command is funding the study and we will be providing them with a report of our findings but we will NOT provide them with information on any individual woman.

Your participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

If you agree to participate in this research you will be asked to meet with a group of 5 to 6 other army women and an investigator from the Research Triangle Institute to discuss the kinds of stressors you and your fellow women soldiers are subject to.

In order to assure your privacy and the privacy of others, we ask you to promise to keep confidential anything other participants say during the focus group. By signing this form you are agreeing to keep such information confidential.

Your participation in this study should involve minimal risk. The only known risks would be: your becoming distressed when recalling unpleasant past experiences, or someone in the discussion group repeating what you say here despite their promise not to do so. There will be no benefits to you from participating in the study but there could be benefits to army women as a result of recommendations coming out of the study.

THE FOLLOWING STATEMENT IS REQUIRED IN ALL STUDIES SUBJECT TO USAMRDALC (PROV) policies:

"You are authorized all necessary medical care for injury or illness which is the proximate result of your participation in this research. Contractors must provide such medical care when conducting research on private citizens. Other than medical care they may be provided (and any other remuneration specifically stated in this consent form), there is no other compensations available for your participation in this research study; however, you understand this is not a waiver or release of you legal rights."

Any questions about this research should be reported to:  
Dr. Kathleen Jordan, Research Triangle Institute, 1-800-XXX-XXXX

For any questions about your rights as a research subject, please call: Barbara Moser, 1-800-XXX-XXXX.

"I agree to participate in this study. Upon signing the consent form I will receive a copy for my records."

**APPENDIX G**  
**CONSENT FORM**  
**SURVEY QUESTIONNAIRE**

**CONSENT TO PARTICIPATE IN A SURVEY  
ABOUT THE NATURE AND EFFECTS OF STRESSORS ON ARMY WOMEN**

The "NAME OF STUDY" is being conducted by the Research Triangle Institute at army bases throughout the continental U.S. and about 800 women soldiers are being asked to fill out a questionnaire as part of this study. The investigators on the this study are Drs. Kathleen Jordan, Juesta Caddell, John Fairbank, and William Schlenger.

The purpose of the research is to examine the changing roles of women in the Army to help us better understand the types of psychosocial, environmental and other stressors women in the Army are subject to. It is also designed to assess the impact of such stressors on army women. The U.S. Army Medical Research, Development, Acquisition, and Logistics Command is funding the study and we will be providing them with a report of our findings but we will NOT provide them with information on any individual woman.

Your participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are other wise entitled. You may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

If you agree to participate in this research project, you will be asked to fill out an anonymous questionnaire that should take less than 1 hour. The items will consists of questions about the type of job you do, stressors you may be subject to, activities you may engage in to relieve stress, and any health and/or mental health problems you may have had. You can omit answering any particular question if you choose.

Your participation in this study should involve minimal risk. The only known risk would your becoming distressed when recalling unpleasant past experiences. All questionnaires will be anonymous so there should be no threat to the confidentiality of the information you give us. There will be no benefits to you from participating in the study but there could be benefits to army women as a result of recommendations coming out of the study.

THE FOLLOWING STATEMENT IS REQUIRED IN ALL STUDIES SUBJECT TO USAMRDALC (PROV) policies:

"You are authorized all necessary medical care for injury or illness which is the proximate result of your participation in this research. Contractors must provide such medical care when conducting research on private citizens. Other than medical care they may be provided (and any other remuneration specifically stated in this consent form), there is no other compensations available for your participation in this research study; however, you understand this is not a waiver or release of you legal rights."

Any questions about this research should be reported to:

Dr. Kathleen Jordan, Research Triangle Institute, 1-800-XXX-XXXX

For any questions about your rights as a research subject, please call Barbara Moser at 1-800-XXX-XXXX

"I agree to participate in this study. Upon signing the consent form I will receive a copy for my records."

**APPENDIX H**  
**FOCUS GROUP SUMMARY**

**RESEARCH TRIANGLE INSTITUTE**  
**THE NATURE AND OUTCOMES FOR WOMEN OF STRESSORS**  
**ASSOCIATED WITH MILITARY LIFE**

Focus Group Findings 11/97

Between July 1, 1997 and September 3, 1997, RTI conducted focus groups with Army women in the Washington, DC metropolitan area and Virginia. Of the 41 total participants, 49% were African American, 39% were Caucasian, 5% were Hispanic, 2% were Native American, and 2% were Asian. The women were ranked between E3 and O5 (groups were split out as E3-4, E5-6, E7-9, O1-3).

Four focus groups with conducted — enlisted women and company grade (junior) officers at Fort Belvoir (in two separate groups); junior NCO's at Fort Eustis; senior NCO's at PERSCOM (originally scheduled for Bragg) and distributed questionnaires to field grade officers through a convenience sample generated by interpersonal contacts. Locations for focus groups were chosen based on both the number of women and the variety of occupations represented for a particular rank at the various locations we had to chose from, that is, locations within driving distance of RTI's D.C. or North Carolina office.

After an initial contact by RTI's military advisor, women were recruited by Army personnel at each individual base. Although the women's Commanders required them to arrive at the focus group site, all participants were told that they fulfilled their requirement just by arriving at the focus group location, and that participation was completely voluntary. We gave the women ample time and opportunity to leave if they felt they wanted to. We offered light refreshments, had them read an information sheet, and proceeded to excuse women by the random selection of numbers until we had no more than 13 people in the focus group. Those who were excused filled out a short questionnaire in another room before leaving.

The focus group discussions lasted approximately two hours. At the end, we asked the women to write down any other issues that we did not talk about. They also filled out a group tally sheet of demographic information so that RTI researchers could describe the makeup of the larger group of women with whom we spoke.

A summary of the key issues discussed in the four focus groups follows.

I. Occupational and Family Stressors

Work hours

There were mixed feelings from the groups as to whether work hours were manageable or overwhelming. Three of the four focus groups expressed sentiments that the hours that they had to work were long, difficult, and stressful. Some jobs require that the Army personnel we spoke with work 12 hour shifts for three or four days, then they get a couple of days off. On days off, some of the more junior soldiers are on call 24 hours a day unless they officially ask for time off. That means they must be prepared to return to work on very short notice and have to be able to be reached by phone easily. It is not uncommon for those living in the barracks on base to be called back to the job if someone does not show up for work. This is because the soldiers in the barracks live so close to the job site, and so that the Army does not have to pay civilians overtime for working additional hours. In addition, many officer women working in administrative positions describe working very long hours, often into the evening. One focus group of officers agreed that their work day, which begins at 7:00 AM and ends very late in the evening, makes finding appropriate child care difficult.

One of the four focus groups, however, felt that because their's were mostly office jobs, their work and hours were relatively easy and relaxing compared with previous assignments. These focus group members were officers who are currently stationed in this position for two to three years only, then are moved on to other places. They noted that this is an opportunity for them to spend time with family before being sent to a post that has eminent deployment and long work hours. Most of these officer women said that their work hours were manageable and that the job was not terribly demanding in terms of hours worked.

Work environment

Few physical work environment issues came up in the focus groups. Cramped working quarters, however, was cited as a problem for some lower level enlisted women, especially those who worked in the base hospital where patients are housed four to a room at times. Another working environment issue a few women brought up was the stress of being a military police (MP) officer. Two MP participants said theirs is a frightening work environment at times because of the fear that someone might turn a gun (or their gun) on them and shoot them. These MPs also fear stopping a male soldier for a violation and having that soldier believe he can overpower her because she is a woman -- something they might not do to a male MP.

Another stress of the work environment that was mentioned by a few women is commuting to the office. Some women who live off base and work in busy metropolitan

areas say that driving to work is very stressful. They cite stressors including driving in high traffic areas and lengthy commutes that limit their free time.

#### Organizational structure/staff changes

The stress of rank and Army hierarchy was a topic of discussion in each group. Higher ranking enlisted soldiers in one focus group said they feel “put in the middle” between their supervisors and their subordinates. They said that their peers and superiors accuse them of “siding with” the soldiers if they try to promote the soldiers’ needs and desires. These women feel torn by wanting to be fair to their subordinates but wanting to be seen as firm and serious supervisors. There is also a perception that, while men in charge are quick to blame women of lower rank for problems that arises, soldiers at higher levels seem to be exempt from correction or punishment when they deserve it. The women felt there was much inequity in how people are treated based on rank.

Working with higher ranking Army personnel is difficult for lower ranking people because the higher ranking personnel are seen as having lofty and sometimes unreasonable expectations of the lower ranking staff. Higher ranking soldiers and officers want things done when they want it, regardless of the feasibility of the request. Many women said they feel that the demands put on them are unreasonable, simply because they are of a lower rank than the person making the request. There was a sense that this is unfair and causes unnecessary stress.

Rank has a stress-inducing effect on women because of the cost of military-run day care as well. Costs for day care services are calculated on a sliding scale based on rank. If both parents are in the military, the fee is based on the spouse with the higher rank, and, therefore, the higher salary. One participant knows of a woman whose husband is stationed in Texas, nowhere near her or the children, and yet day care fees are based on his (higher) rank. The large financial burdens that the cost of day care causes is stressful for women on tight budgets.

#### Working with Others

One issue all of the soldiers seemed to agree upon was the problem of working with civilian colleagues. The women indicated that working with civilians caused resentment and morale problems among Army staff. Some lower ranking enlisted soldiers in one group felt civilians should have no right to tell soldiers what to do. These soldiers resented the fact that the civilians get vacation and sick days and come to work later in the morning, yet are the ones who dictate when the soldiers arrive and leave, and whether they can take time off for sickness or for a child's illness. Some considered it unfair to put civilian staff in charge of the military staff. These women feel that civilian workers who work alongside of Army

personnel create stress because they lack the teamwork or camaraderie that soldiers gain from their military training. Some women we spoke with have observed civilians spending work time playing games, taking breaks, or conducting personal business while at work, and this adds to their sense of unfairness. Overall, the majority of military women we spoke with feel strongly that working with their civilian counterparts was one of the most stressful aspects of their jobs.

In addition to difficulties working with civilian counterparts, a couple of officers agreed that general personal interactions are stressful in their jobs (although it was noted that this stressor is not unique to women). They said that it is often difficult to determine who is right or wrong in conflicting situations, and it causes some women stress to have to deal with that type of uncertainty in the workplace. Another officer agreed that it is conflicting personalities in her job that cause her stress.

A recent and poignant change reported by most higher ranking enlisted participants in one group is that they believe the quality of recruits into the Army has plummeted in the last few years. Several officers in one group said they feel like they are babysitters, having to supervise soldiers with documented personality disorders, with very low mental functioning or, for example, a soldier with pending life sentences in prison. The feeling was that it was stressful enough to be in the military as a woman without having to deal with subordinates who have serious deficits and problems that affect their work.

#### Working under supervisors

One stressor for higher ranking enlisted soldiers was the conflict of reporting to two different supervisors in their jobs. As an example, a soldier may answer to someone other than their "in-line" commander for most of their day-to-day work assignments, yet their commander may also make additional demands on their time. Their supervisors often blame the women for the conflict between commanders and make the soldiers feel guilty that they cannot satisfy all requests at once. The conflicts from this "dual reporting" are especially common when one of the supervisors is a civilian since civilians are seen as not having the benefit of Army training and seldom understand military protocol.

A couple of women said that women may be treated more leniently by male supervisors if the male thinks the woman is "cute", especially in the case of male drill instructors. A few soldiers felt that some women use their sexuality to their advantage in the Army to try to get away with something they would not get away with from another superior.

Women in our groups voiced their dislike of working under women drill instructors and supervisors. Women in the Army seem to believe that they have to do more to prove themselves in their male dominated work place. One woman said that when women get more rank, they begin to espouse more of the traditional male attitudes which the Army instills in

its career personnel. That can make women more difficult to work with and for. A few soldiers mentioned that working with a lot of women adds stress and conflict to the workplace, partially due to the competition that the Army instills in soldiers. Another soldier said she feels it is harder to work for a woman than for a man because she has very high expectations of other military women, especially those for whom she works directly. She said she feels disappointed when she sees women who are not representing other women well in terms of their level of confidence and strength of character. This feeling was expressed most strongly about supervisors, especially because it is supervisors who have the potential to set a good example and to be role models for lower ranking Army women.

#### Supervising others

Many stressful aspects of being a female supervisor in the Army were discussed in the groups. Women in the Army often find themselves the pioneers in many supervisory jobs where they are faced with obstacles from other soldiers, like having subordinates and peers go around them and over their heads to male supervisors. Many men in the Army are not used to being supervised by women and are threatened or uncomfortable with it. While supervising men, woman officers often have to deal with serious insubordination, such as being repeatedly called "doll baby" by a male under her supervision.

Supervising men who are civilians, retired military, and older than their female supervisors is particularly difficult. These men tend to remind their women supervisors that they were once at a higher level and challenge the women's authority. Many female officers agreed that supervising men who are older than they are is the most difficult because of a dynamic of age and gender working against the women in these roles.

On the other hand, supervising women can be difficult as well. Some of the women soldiers we spoke with feel that women they supervise have trouble distinguishing personal issues from professional issues. Some officers felt that it is especially difficult to have to tell a female subordinate, with whom they have been friendly in the past, that the subordinate has done something wrong in the workplace. These officers said this is difficult because women's feelings tend to get hurt more easily than men's, particularly when a female is supervising them.

Still on the topic of supervising others, some believe that female supervisors are tougher than their male counterparts in a number of ways. Because women have to work harder to prove themselves as good as or better than their male peers, female supervisors are reported to be more meticulous, more direct, and less lenient. Female supervisors can tend to be even tougher on female subordinates in the hopes of making these women aware that the reputation of all women in the Army is at stake and subject to undue scrutiny. Another reason

female supervisors may be tougher and less lenient than their male peers is because male supervisors are hesitant to address some issues that can be perceived as sexual harassment. For example, men are hesitant to comment on the proper fit of the soldiers' uniforms because of the sexual harassment problems that have been publicized recently.

Higher ranking enlisted women spoke of the challenges of supervising others during deployment overseas. They said it was harder to keep soldiers "in line" while deployed. It is especially difficult to be in a country where women are of a lower social class than men. Being a woman supervisor in those situations is stressful, because foreign troops and civilians are not used to women supervisors and do not want to follow the commands of women. Villagers in those countries fail to give the deserved respect to woman soldiers, as well.

Overall, many of the women supervisors felt that it is when there is a conflict situation that women fare better as supervisors than most of the men. Women tend to jump in, take control, and prove their leadership in conflict, whereas their male counterparts often retreat.

#### Women's success

Several higher ranking enlisted women stated that there has been a conscious effort to make opportunities for women to advance as a result of "right sizing," but as women soldiers advance, they encounter a lot of conflict. As women advance, the men currently at those levels become angry that women are in those positions alongside them. Some men feel threatened, and there is a perception that many people in the Army want women out.

There was a general consensus that to be considered as good as a man a woman in the Army has to constantly give 120%, while a man can get by with about 80% without chastisement. Similarly, if a woman is assertive, job-oriented, and a strong leader who gets the job done, she is labeled "a bitch." A male with those same assertive characteristics and behaviors is considered "a damn good soldier." In addition, Army women have to deal with the perception that they are sleeping their way to more advanced positions. The women felt that this serves to diminish and degrade all of the accomplishments women achieve in their military careers.

Most of the women we talked with at all levels agreed there is tremendous pressure as a woman in the Army to be the very best you can be, and to be beyond reproach. Army women are believed to be held to different standards than men, having others and themselves hold them to a higher level. One soldier said she cannot allow anyone to see her do anything that could be considered wrong. If one woman does something wrong, other military personnel assume all women are incapable of doing things right. Others agreed that whenever there is a problem or something does not go right, the female will be blamed, whether she had anything to do with it or not. Army woman must be sure they always knew their job better than anyone else so that, when she reaches a decision or takes an action, it cannot be refuted.

Another source of stress is the fierce competition and resentment some women are faced with from the men who initially trained them once the women begin to surpass the level of achievement of those men. This occurs even though some of the first things a soldier learns upon entering the Army is the word "teamwork." It is difficult to believe in a "teamwork" approach when there is little camaraderie between male and female soldiers due to the ever-present competition and resentment.

On a positive note, one group stated one thing that helps them to deal with the difficulties of supervising others in the Army is having male coworkers who back them up and who believe in having women working beside them. This helps to draw the boundaries which others then find difficult to overstep.

### Harassment

Issues surrounding the topic of harassment were brought up in each group. Sexual harassment is viewed as a problem in the Army. Most women felt that there is harassment all over the military, and at all ranks. Some feel that sexual harassment happens twenty four hours a day, seven days a week in the military. One interesting perception from a couple of soldiers is that no repercussions come to the civilians who work on post who sexually harass their colleagues, only military personnel get reprimanded.

On the other hand, some woman mentioned that the sexual harassment issue has instilled fear in the their male counterparts which may prevent them from effectively performing their duties. Some men are afraid to simply speak to women colleagues for fear of charges of harassment, which is very bad for the work environment. Some men refuse to be alone with a woman in their job. One soldier knew of a chaplain who made sure there was another person present during his counseling sessions with women, for example. The women said that they felt this was a breach of confidentiality, and was proof that the harassment issue was inhibiting some men from doing their jobs properly.

The fear of being alone with a person of the opposite sex is not the same for women officers who supervise male soldiers. The women said rarely does it happen that a woman supervisor feels uncomfortable being alone with a male subordinate because of a fear of sexual harassment accusations. All of the soldiers agreed, however, that on the enlisted side, women tend to be afraid to be alone with male supervisors or subordinates.

### Weight and appearance

The issue of weight control came up in all groups, and agreement about the unreasonableness of the weight measurement system was unanimous. The Army sets weight limits for women based solely on height, but they are seen as too restrictive and do not vary based on age, body type, or race and ethnicity. Women who work out a lot have more muscle

than the average person, and muscle weighs more than fat. Thus, they are penalized for being more muscular and fit. Women felt strongly that weight ranges should be based on fitness, not weight and measurements. A soldier who is over the prescribed weight is "taped" and placed on an overweight program. If this happens twice in one year, she can be discharged from the Army.

### Pay

Pay is a major problem for some of the enlisted soldiers. Many women, but mostly lower ranking enlisted women, feel they are unfairly compensated. Some make so little money they could qualify for food stamps. The pay issue generated a fair amount of discussion and what appeared to be resentment by many members of the group.

On the other hand, the officers we spoke with felt they were well paid. They were comfortable with their salaries, but agreed that there are plenty of soldiers who are on welfare and who cannot afford to stay in the military because they do not make enough to support themselves and their families. One potential option for these women would be to get a second job. In cases such as rapid deployment units, however, soldiers are unable to get second jobs even if they wanted to because they must be on standby 24 hours a day for deployment.

### Social aspects

Fraternization is not allowed in the Army at certain ranks, but when there are limited places and opportunities to socialize around a base, enlisted women sometimes feel torn between wanting to have a social life and not wanting to be accused of fraternization. While some women would like to go out to area bars and clubs for relaxation, they noted that they have to be very careful about with whom they talk.

Army trainees are not allowed to go off base until they have been "phased" or have finished their training. Some of these women felt frustrated and isolated because of this. All they can do for social activities is call home, sit in the day room of their barracks, and watch other people having fun. They found this lack of social life, as well as not being able to see their families until after they have phased, to be stressful.

Some women agreed that military women who are single face rumors about their sexuality. A woman is never accepted as being single by her choice. Women who are single or a bit of a "tomboy" are usually judged as gay or as if something is wrong with them.

### How women's stress is different from men's

A number of issues came up that highlight how the stress women encounter is different from the stress of men in the Army. Some of the women agree that male soldiers get away with a lot of behavior for which women would get in trouble. For example, if

colleagues and supervisors see a female doing something wrong, they will make that known much more quickly than if it is a male. Women's behavior is more closely scrutinized than men's. Because they work in a male dominated environment, some women felt that they are and will continue to be treated unfairly in terms of being more heavily scrutinized than men.

Discrimination against women on the job is another way women's stress is different from men's. It is often unduly difficult to get promotions to jobs women aspire to hold in the Army because, as women, they are prevented from getting many of the "feeder jobs" they need before they can attain the positions they eventually want. This is apparently a greater problem in those jobs that have not traditionally been held by Army women such as combat support positions or high level supervisory roles.

#### Training Routines/Deployment/Overseas assignments

One stressor most women who had been deployed mentioned is that the environment during deployment in which they must work is often difficult and harsh. Hygiene is a major concern because there is often nothing to wash with, no fresh water, improper facilities and private areas for changing sanitary napkins or tampons, and sometimes not even any toilet paper or wash basins. When deployed overseas, men and women sometimes have to share shower facilities as well. The Army sets aside certain hours for women to use shower facilities, but those hours are very restrictive, making it difficult to fit into long and demanding work schedules. The women said this is very stressful not to be able to the showers during the designated time. Some women reported that their male counterparts often were initially uncomfortable sharing living quarters with the women. It is up to the women to set the guidelines and make things work in these situations. The women felt they tended to adapt more easily to this situation and take on the responsibility for helping the men to feel comfortable with co-habitation.

Another health related stressor during deployment is the problem of poor air quality in some countries. Because of air pollution in some of the locations, soldiers have been restricted from going outside to exercise. Daily exercise is not only mandatory in the Army, but it is a key method of reducing stress for many of the women with whom we spoke. Being restricted from going outdoors, therefore, causes additional stress.

There was agreement that overseas assignments are generally unpleasant, especially for those who have young children at home. Even very new mothers are subject to deployment because of their jobs, many of who much go overseas and leave their babies who may be as young as six weeks old. The women we spoke with could not stress enough how unfair they felt that is because of the disruption to the critical bonding period between parent and child in those early months. For women with children, and especially for single mothers, another stressful issue is obtaining safe, reliable child care during deployment. Family

members are often the ones who take on the task of child care in these cases. Not only do women at the lowest ranks have to leave their children behind even in areas not at risk of imminent danger, but lower ranking military spouses who are deployed as a couple are not allowed by Army rules to live together during deployment. The female spouse has to stay in the women's barracks and the male soldier in the men's barracks, just like the unmarried soldiers. Some women felt this is unfair and not necessary.

During deployment, Army women also experience stress when they move their unit or battalion from camp to camp in dangerous physical environments. Knowing there is imminent danger nearby causes a great deal of stress which cannot be ignored. When asked what it was like to be in an area of imminent danger in a deployment situation, a couple of officers said that it is stressful, but everyone is so busy with so many tasks to accomplish that stress is barely an issue. Soldiers on deployment are always in fast forward mode which helps keep their minds off of the stressful situation of being deployed. Another relative benefit to deployment is that men seem to be more willing to work with women in those situations. There are no gender issues when a mission is before them. Women are often the only one trained to do a job while deployed, so men are more willing to work cooperatively. Infantry soldiers, however, were viewed as less equipped to work with women in eminent danger situations because they have not previously trained with women and are not used to the gender mix in their normal units.

Going into the field for training exercises is also stressful. Many Army occupations require that soldiers go into the field multiple times a year to learn how to use new equipment, sometimes for as many as nine months at a time. Many stressors are associated with training in the field. Some women feel stress from worrying whether they will be physically competent to do the job they are required to do in the field. These women often find the field is both a shock and an adjustment for them, especially if their military occupation is primarily in a ceremonial unit. One additional stressor is that harassment is actually worse in the field than back on base. Some women thought that was because men thought they could more easily get away with it when they are out from under the scrutiny of colleagues.

#### Equipment and clothing

There was a feeling by a few of the lower ranking enlisted soldiers that there was very little equipment to go around to each person who needed it to do their jobs, and the equipment that was available broke down often (e.g., floor buffers). Similarly, one of the medical staff mentioned a certain procedure that is done whereby the equipment, instead of being disposed of as a civilian hospital would, has to be sanitized after each use with a special brush. There was only one of these brushes to clean the piece of equipment. This was seen as a hassle on the job in terms of lack of equipment.

Some women talked about the fact that the new Class A uniforms that the Army has developed for women make them look like men. Several participants agreed. Some officers noted that some of the equipment, physical training (PT) clothes, and rucksacks, were not designed for a female body. It is difficult to do physical work in these clothes because they are not shaped for a woman's body. Another complaint is that men try to look up women's clothes when they are exercising or training. Although the officers we spoke with had little negative to say about uniforms or equipment, one female aviator said that women's flight suits are too tight for some women who are large busted or pregnant. Some women wear their baggiest BDUs as long as possible during their pregnancies so no one comments on the fact that she is starting to show. The Army does provide BDUs specially designed for pregnant women, but women tend to not want to wear the maternity type BDUs since because some feel it makes them look incapable or makes others look at pregnant women that way.

#### Children and family

Stressors related to children and the family was the most discussed issues for the women we spoke with in all four focus groups. One issue that came up in every focus group was day care for children. The women who use day care said that the quality of on-post day care is not acceptable, the costs are very high, there are too many children and too few teachers, and the hours are inconvenient and not conducive to military life. All of the women officers in one group who have children agreed that they would not put their children in military day care. One has a nanny, another entrusts a woman who takes care of a few children in her private home. Child care is also a major concern for women who are sometimes called in to work on their off-duty hours or who have to temporarily change their shift.

The kind of child care issues some of the women reported depend on their supervisors' attitude toward families and private lives. Some supervisors are supportive and reasonable, others make it very difficult to deal with unexpected family needs. Women feel their jobs are less stressful if they have supervisors who believe that family comes first. As an additional stress, single mothers cannot share child care responsibility with a spouse, therefore taking time off for family matters is often necessary. That does not change the fact that it is often frowned upon by supervisors. Some single mothers handle this by being straightforward and up-front with their supervisors and taking the time off that they need. Others deal with this difficulty by taking one week of leave a year and scheduling all of their appointments during that time. The women wanted Army decision makers to be more compassionate toward women who have to deal with the stress of being single parents. One woman even went so far to say that the military is more compassionate toward men who are raising their children alone, but fail to show the same level of understanding toward single mothers.

There was general agreement that an un-supportive husband is very difficult. If both husband and wife have a military career, the military mentality is that the husband's job is more important than the wife's. This leaves many women having to be the one to routinely take time off to care for family matters since it would not look good to the husband's supervisor and co-workers if he took time off for family issues instead of working. It may be that the Army reinforces or unconsciously promotes a more traditional attitude toward family life such that women feel obliged to put their careers on hold while raising children. On the other hand, others described their spouses as very supportive of home and work situations and highlighted this as one of the things that helped to reduce their overall stress in life.

Finding and maintaining a romantic relationship is made more difficult by being a military woman. The life of an Army woman can prove trying in terms of meeting people with whom a woman would be interested in developing a relationship. Because people in the Army generally move every two to three years, promising dating relationships often do not last long. It is rare to find a military woman married to a civilian man because men are generally not willing to follow a woman for her job.

One final stressor of family life in the military had to do with family deployment. Especially when moved out of the United States, deployment is stressful on family life. It takes a lot of adjustment to move to another country, and then once settled, having to move somewhere else is highly disruptive.

### Pregnancy

In addition to other types of personal stressors that women in the Army face, women in each focus group discussed the stressors of being pregnant and in the Army. The normal stressors of being pregnant are amplified because many people have the general attitude that pregnant women are lazy and have gotten pregnant in order to receive special treatment from the Army. Women who have experienced complications during their pregnancies sometimes face hassles and roadblocks from supervisors who try to coerce doctors to change orders that prevent women from doing physically demanding duties.

A few junior enlisted participants talked about physical demands during pregnancy and following their maternity leave. They felt that not enough consideration was given during pregnancy and that they needed longer than the six weeks post-partum allowed before being expected to be at 100% physical performance. Most of the soldiers agreed that one difference in the stress men and women in the military face is that men do not get pregnant. They said men do not realize how hard it is to be pregnant and to have to get up at 6:30 AM to do PT, then work until 4:30 PM in the afternoon only to return home to deal with family tasks. Some men believe that women are getting pregnant to get out of going on assignment or to get out of doing PT. Many women felt that men resented the six weeks women get for pregnancy

leave, and see it as if it were a vacation. This affects women's self esteem, their feelings of adequacy, and their desire to stay in the Army. Such lack of support in the workplace understandably affects women negatively and makes them second guess their decision to build a career in the military.

In addition, coming back from six weeks of pregnancy leave and immediately having to do a PT test is very stressful. Fortunately for these women, the Army now allows more time to recover from pregnancy and to build their physical fitness and strength again before being expected to pass a PT test.

Women who are serious about advancing their military careers have to find an appropriate window of opportunity in their lives to start having a family. Getting pregnant takes a woman out of commission for at least a year, so they have to be careful that they are not up for a promotion, are finished with school, or other activities.

## II. Mediating Factors

Amidst all of the stressors women face being in the Army, there are some things they manage to do to help them relax and cope. Some women deal with daily stress by simply getting away from their work. Leaving the work environment and getting off the military base is all some women need to reduce their stress. Many women with families noted that time with their spouse and children reduces their stress. Simply seeing the smiling faces of their children when they walk in the door from a hard day at work reduces the stress of some women. Others spent time with friends. A very common method of reducing stress for Army women is to exercise and to do other things that make them feel good about their bodies and health. One soldier said she meditates with a group of people she lives near in the barracks. A couple of soldiers said having BBQs and partying helps. Other methods reported by some women were watching T.V. or movies, reading, listening to music, and shopping.

On the other hand, other women relax by reaping the benefits of their jobs. For example, women who work in a hospital may enjoy spending time with the mothers and their babies on the maternity ward, or helping patients in general. It gives some people satisfaction to feel that they are helping others. One soldier who is a DARE (school-based drug awareness curriculum) instructor for students gets rewards from doing that.

Another factor that helps some women feel less stressed is when there are no supervisors around and they can do their jobs without the pressure of having someone watching over their shoulder. One group of women agreed, however, that it reduces stress to find a supportive senior mentor who they respect, whether it be a man or woman. The most effective aspect of a supportive mentor is to have someone to act as a sounding board. It is most helpful to have a mentor who is someone the person does not work with too closely.

Another very common way of reducing stress that women in all groups reported was by women talking to each other (other women in the Army) or to their spouse/companion/mate--especially if he is not in the military so that there is another life aspect of life besides Army life to talk about. Talking about work and stress was mentioned very frequently as being an effective way to reduce stress.

### III. Outcomes

Unfortunately, when asked what the outcomes of stress are for women in the military, a response from more than one group is that many women leave the military due to the stress. Whether it be because of harassment, the competitiveness between peers, or the stress related to deployment and leaving families behind, many women find that the Army is not conducive to happy personal lives. Other outcomes include breaking down and crying, substance abuse, and over-eating. None of these stressors are unique to Army women, but it is interesting to note that very few outcomes were mentioned by the groups in general. This could be because this issue was always asked after about an hour and a half of discussions on other topics and participants had little else to discuss.

### IV. SUMMARY

Some selected findings from the focus groups are:

- The stress of rank and Army hierarchy was a topic of discussion in each group. Higher ranking enlisted soldiers sometimes feel “put in the middle” between their supervisors and their subordinates. Lower ranking soldier often find the requests by supervisors unrealistic and overly demanding. Working with civilians, who are outside the military structure, was seen as particularly stressful.
- Many women identified sexual harassment in the military as a regular on-going struggle but did not list this at the top of their concerns.
- Working with and under other women soldier can, itself, be stressful. Having to be a “role model” and above reproach was voiced by women in each group as demanding and placing additional burdens on them. Women soldiers seem to have different expectations for relationships with other women soldiers and this was seen as complicating the way in which they carry out their jobs.

- Child care issues dominated the list of stressors in all focus groups. Issues ranged from costs, finding schedules that accommodated Army work shifts, balancing dual career families, to separation from children during times of training and deployment.
- There were mixed feelings from the groups as to whether work hours were manageable or overwhelming depending on rank and current assignment.
- Army regulations regarding weight maintenance and physical training were voiced as stressful for most women and appear to be a source of daily stress.

**APPENDIX I**  
**SURVEY QUESTIONNAIRE**

1998 DEPARTMENT OF THE ARMY  
SURVEY OF STRESSORS AND THEIR IMPACTS ON  
WOMEN IN THE ARMY/ARMY RESERVES

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## INTRODUCTION

Who are we? We are from Research Triangle Institute (RTI), a not-for-profit research company under contract to the U.S. Army Medical Research and Materiel Command.

How were you selected? You were randomly selected by your commander to participate in this important survey based on your occupation, rank, and background.

Must you participate? Your participation in this survey is voluntary. We encourage you to answer all of the questions honestly, but you are not required to answer any question to which you object.

What are the questions about? Mainly about people, events, and activities that can be stressful, and potential health and other effects of stress. Additional questions ask about support from family, friends, and others.

**Who will see your answers?** Only civilian researchers from RTI. No military personnel will see your answers. Your answers will be combined with those from other military personnel to prepare a statistical report. This questionnaire will be anonymous if you DO NOT WRITE YOUR NAME OR SOCIAL SECURITY NUMBER ANYWHERE IN THIS BOOKLET.

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## INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

- **Most questions provide a set of answers. The answer choices are different for different questions, so please read all the printed answers before marking your choice. If none of the printed answers exactly applies to you, mark an  in the box for the one answer that best fits your situation.**

**Example:**

Are you currently in the U.S. Army or Reserves?

Yes

No

- **If you have any questions, please ask the proctor who distributed this questionnaire.**

## A. Your Background

A1. How old were you on your last birthday?

Years old

A2. How many years have you served (did you serve) on active duty in the Army?  
(If you had a break in service, add together current time and time in previous tours.)

Number of years

None

A3. How many years have you served in the Army Reserves?

Number of years

None

A4. What is your current rank?

<sub>1</sub> E1 - E4

<sub>4</sub> WO1 - WO2

<sub>6</sub> O1 - O3

<sub>2</sub> E5 - E6

<sub>5</sub> WO3 - WO5

<sub>7</sub> O4 - O6

<sub>3</sub> E7 - E9

<sub>8</sub> O7 - O10

A5. What is your highest level of education now?

<sub>1</sub> Did not graduate from high school

<sub>2</sub> GED or ABE certificate

<sub>3</sub> High school graduate

<sub>4</sub> Trade or technical school graduate

<sub>5</sub> Some college but not a 4 year degree

<sub>6</sub> 4 year college degree (BA, BS, or equivalent)

<sub>7</sub> Graduate or professional study but no graduate degree

<sub>8</sub> Graduate or professional degree

A6. Are you of Hispanic or Latino origin or descent?

<sub>1</sub> Yes

<sub>2</sub> No

A7. Which of these categories best describes you? **(Mark all that apply.)**

- <sub>1</sub> American Indian/Native American/Alaskan Native
  - <sub>2</sub> Native Hawaiian or Pacific Islander
  - <sub>3</sub> Black/African American
  - <sub>4</sub> Asian
  - <sub>5</sub> White/Caucasian
  - <sub>6</sub> Other **(Please write in below.)**
-

## B. Your Military Experience

Please read the job categories shown on the following two pages to select one of the following categories that best describes your military job (Enlisted job categories are shown on page 4. Officer job categories are shown on page 5.)

B1. Please mark below the category that best describes your military job.

### ENLISTED

- <sub>1</sub> Infantry, Gun Crew, or Seamanship Specialist
- <sub>2</sub> Electronic Equipment Repairman
- <sub>3</sub> Communications or Intelligence Specialist
- <sub>4</sub> Health Care Specialist
- <sub>5</sub> Other Technical or Allied Specialist
- <sub>6</sub> Functional Support and Administration
- <sub>7</sub> Electrical/Mechanical Equipment Repairman
- <sub>8</sub> Craftsman
- <sub>9</sub> Service and Supply Handler
- <sub>10</sub> Non-Occupational

### OFFICER

- <sub>1</sub> General Officer or Executive
- <sub>2</sub> Tactical Operations Officer
- <sub>3</sub> Intelligence Officer
- <sub>4</sub> Engineering or Maintenance Officer
- <sub>5</sub> Scientist or Professional (not involved with health care)
- <sub>6</sub> Health Care Officer
- <sub>7</sub> Administrator
- <sub>8</sub> Supply, Procurement, or Allied Officer
- <sub>9</sub> Non-Occupational

## ENLISTED JOB CATEGORIES

(If you are an officer, please turn the page over to find examples of officer job categories.)

CATEGORIES	EXAMPLES
Infantry, Gun Crew, or Seamanship Specialist	Individual weapons specialists, crew-served artillery specialists, armor and amphibious crew, specialists in combat engineering and seamanship, air crew, and installation security personnel.
Electronic Equipment Repairman	Specialists in the maintenance and repair of electronic equipment, such as radio, radar, sonar, navigation, weapons, and computers.
Communications or Intelligence Specialist	Specialists in the operation and monitoring of radio, radar, sonar, and gathering and interpretation of intelligence.
Health Care Specialist	Specialists in patient care and treatment, medical support, and related medical and dental services.
Other Technical or Allied Specialist	Specialists in skills not classified elsewhere, such as photography, mapmaking, weather, ordnance disposal, laboratory analysis, and music.
Functional Support and Administration	General administrative, clerical, and professional specialists, including administrative specialists in data processing, functional support specialists (in areas such as supply, transportation, and flight operations), chaplains' assistants, and public affairs specialists.
Electrical/Mechanical Equipment Repairman	Specialists in the maintenance and repair of aircraft, automotive equipment, missile systems, marine engines and boilers, power-generating equipment, and other mechanical and electrical equipment.
Craftsman	Metalworkers, construction workers, plumbers, electricians, heating and cooling specialists, lithographers, and other trades.
Service and Supply Handler	Personnel in food service, operation of motor transport, shipping and receiving, law enforcement, laundry and dry cleaning.
Non-Occupational	Includes officer candidates, authorizations for personnel in a student status, or personnel serving in duties of a special or otherwise undesignated nature.

## OFFICER JOB CATEGORIES

(If you are an enlisted, please turn the page over to find examples of enlisted job categories.)

CATEGORY	EXAMPLES
General Officer or Executive	Includes all officers of General/Flag rank, all Marine Corps full Colonels, and all directors, planners, or executives not classified elsewhere.
Tactical Operations Officer	Includes pilots and aircraft crews, such as navigators; infantry, artillery, armor, and close support officers; Naval ship commanders; missile systems officers and missile unit commanders; and combat and operations officers.
Intelligence Officer	Includes strategic, general, and communications intelligence officers, and counterintelligence officers.
Engineering or Maintenance Officer	Includes civil engineers and architects; electrical engineers; communications engineers and communications officers; aircraft maintenance officers and aeronautical engineers; weapons engineering and maintenance officers; missile maintenance officers; ground, aviation, and weapons safety officers; chemical engineers; and topographic engineers, and cartographic and aerial mapping officers.
Scientist or Professional (not involved with health care)	Includes chemists, biological scientists, physicists, geologists, meteorologists, social or behavioral scientists, lawyers, chaplains, mathematicians and statisticians, and military college faculty members.
Health Care Officer	Includes physicians, dentists, nurses, veterinarians, allied health officers, and health services administration officers.
Administrator	Includes general administrative officers, manpower and personnel managers, comptrollers and accounting officers, data processing officers, public and internal information officers, police, Inspector General and technical inspection positions, morale and welfare officers, and officers engaged in the planning, management, and operation of training programs.
Supply, Procurement, or Allied Officer	Includes officers in supply, procurement and production, transportation, food service, and related logistical activities.
Non-Occupational	Includes law students, medical students, flight students, other trainees, and billet designators.

B2. As of today, how many months have you been assigned to your present permanent installation or duty station?

- |   |   |
|---|---|
| <input type="checkbox"/> <sub>1</sub> Less than 1 month | <input type="checkbox"/> <sub>4</sub> 7 - 12 months                 |
| <input type="checkbox"/> <sub>2</sub> 1 - 3 months      | <input type="checkbox"/> <sub>5</sub> 1 year - 1 year and 11 months |
| <input type="checkbox"/> <sub>3</sub> 4 - 6 months      | <input type="checkbox"/> <sub>6</sub> 2 years or more               |

B3. During the past 30 days, how many full 24-hour days were you deployed in the field?

Days (**Answer should be between 0 and 30.**)

B4. During the past 12 months, how many weeks or parts of weeks were you deployed in the field?

Weeks or parts of weeks (**Answer should be between 0 and 52.**)

B5. Have you ever been deployed or stationed overseas?

- |  |
|--|
| <input type="checkbox"/> <sub>1</sub> Yes                                      |
| <input type="checkbox"/> <sub>2</sub> No → <b>GO TO QUESTION B13 ON PAGE 8</b> |

B6. What is the longest you have been deployed or stationed overseas?

- |   |   |
|---|---|
| <input type="checkbox"/> <sub>1</sub> Less than 1 month | <input type="checkbox"/> <sub>4</sub> 7 - 12 months                 |
| <input type="checkbox"/> <sub>2</sub> 1 - 3 months      | <input type="checkbox"/> <sub>5</sub> 1 year - 1 year and 11 months |
| <input type="checkbox"/> <sub>3</sub> 4 - 6 months      | <input type="checkbox"/> <sub>6</sub> 2 years or more               |

B7. How much of a problem was it for you to get someone to take care of your child/children under age 18 while you were overseas?

- <sub>1</sub> No or little problem
- <sub>2</sub> A moderate problem
- <sub>3</sub> Very much of a problem
- <sub>4</sub> Had no children under 18 at the time → **GO TO QUESTION B10**
- <sub>5</sub> Took child/children with me → **GO TO QUESTION B10**

B8. When was it that you had to make arrangements for child care while you were deployed or stationed overseas?

- <sub>1</sub> Within the past 5 years
- <sub>2</sub> More than 5 years ago

B9. How much practical help did your superior officers give you in dealing with your need for child care when you were deployed or stationed overseas?

- <sub>1</sub> A lot
- <sub>2</sub> Somewhat
- <sub>3</sub> Very little
- <sub>4</sub> None

B10. Have you ever been either deployed or stationed in a war zone or an area of hostile action such as a peace-keeping action?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION B12 ON PAGE 8**

B11. Were you deployed/relocated to serve in the following locations during the time periods indicated? (Mark all that apply.)

- <sub>1</sub> Vietnam (March 1962 - January 1973)
- <sub>2</sub> Grenada (October 1983 - November 1983)
- <sub>3</sub> Panama (December 1989 - January 1990)
- <sub>4</sub> Southwest Asia (August 1990 - April 1991)
- <sub>5</sub> Somalia (December 1992 - March 1994)
- <sub>6</sub> Macedonia (July 1993 - November 1997)
- <sub>7</sub> Haiti (September 1994 - November 1997)
- <sub>8</sub> Bosnia (December 1995 - present)
- <sub>9</sub> Other war zone or hostile action zone (Please write in location and dates below.)

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_

B12. Have you ever been deployed or stationed in any other location where you were in serious physical danger of being shot or otherwise attacked by individuals in the local population?

- <sub>1</sub> Yes
- <sub>2</sub> No

Now we'd like to learn generally about your morale and the morale of your unit.

B13. How would you rate your current level of morale?

- <sub>1</sub> Very high
- <sub>2</sub> High
- <sub>3</sub> Moderate
- <sub>4</sub> Low
- <sub>5</sub> Very low

B14. How would you rate the current level of morale in your unit?

- <sub>1</sub> Very high
- <sub>2</sub> High
- <sub>3</sub> Moderate
- <sub>4</sub> Low
- <sub>5</sub> Very low

B15. How would you rate the current level of morale among women in your unit?

<sub>1</sub> Very high

<sub>2</sub> High

<sub>3</sub> Moderate

<sub>4</sub> Low

<sub>5</sub> Very low

### C. Support and Stress in Your Job

Below is a list of things that might describe a person's job. Mark an  in one box on line for whether the item is very true, somewhat true, not very true, or not at all true of your current Army Reserve job.

			Very true	Some-what true	Not very true	Not at all true	Don't know
			▼	▼	▼	▼	▼
C1.	I am free from conflicting demands on my job ..	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C2.	I have a lot of say over what happens on my job .	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C3.	My job requires me to work at a fast pace .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C4.	My job requires me to work very hard .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C5.	My job allows me freedom to decide how I do my own work .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C6.	On my job I make a lot of decisions on my own .	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C7.	On my job I get to take part in making decisions that affect me .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C8.	I am asked to do excessive amounts of work .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C9.	I have enough time to get the job done .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C10.	My duty day is often longer than 8½ hours .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C11.	I change shifts relatively often .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C12.	I often have to take an extra shift for someone else who is absent in addition to my regular shift .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C13.	Equipment that I use is designed for men and is very difficult and/or dangerous for a woman to operate .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C14.	The equipment we use is inadequate, works poorly, or there is a shortage of equipment .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C15.	Fumes, noise, and/or other unpleasant environmental factors make the location where I work very physically stressful .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C16.	There are some aspects of my job that are physically dangerous .....	<input type="checkbox"/> 1 ...	<input type="checkbox"/> 2 ...	<input type="checkbox"/> 3 ...	<input type="checkbox"/> 4 ...	<input type="checkbox"/> 5	
C17.	In general, how well would you say that your job measures up to the sort of job you wanted when you joined?						

1 Very much like the job I wanted       3 Not very much like the job I wanted  
 2 Somewhat like the job I wanted       4 Don't know

C18. Taking everything into consideration, how satisfied would you say you are with your work assignment?

- |   |   |
|---|---|
| <input type="checkbox"/> <sub>1</sub> Very satisfied        | <input type="checkbox"/> <sub>4</sub> Very dissatisfied |
| <input type="checkbox"/> <sub>2</sub> Somewhat satisfied    | <input type="checkbox"/> <sub>5</sub> Don't know        |
| <input type="checkbox"/> <sub>3</sub> Somewhat dissatisfied |   |

C19. Is your own immediate supervisor male or female?

- <sub>1</sub> Male
- <sub>2</sub> Female
- <sub>3</sub> Multiple supervisors/men & women
- <sub>4</sub> I have no supervisor → **GO TO QUESTION C30 ON PAGE 13**
- <sub>5</sub> Don't know

**Below are some more statements about the people you work with at your military job. Please mark an  in one box on each line for how true each statement is for the place that you work.**

	Very true ▼	Some- what true ▼	Not very true ▼	Not at all true ▼	Don't know ▼
C20. Supervisors are very concerned about the welfare of those who work under them ...	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>
C21. Supervisors encourage soldiers to work as a team .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>
C22. Job decisions are applied consistently across all affected soldiers .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>
C23. At the place I work we have too little supervision .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>
C24. Supervisors are good at their job .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>
C25. Supervisors makes negative remarks about women's performance and abilities .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>
C26. Supervisors often make unreasonable or unrealistic demands of soldiers .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>	... <input type="checkbox"/> <sub>3</sub>	... <input type="checkbox"/> <sub>4</sub>	... <input type="checkbox"/> <sub>5</sub>

C27. Does the supervisor you work with most often give substantially more opportunities to men or to women?

- <sub>1</sub> More opportunities to men
- <sub>2</sub> More opportunities to women
- <sub>3</sub> Treated the same
- <sub>4</sub> Don't know

C28. Does the supervisor you work with most often give substantially more rewards to men or women?

- <sub>1</sub> To men
- <sub>2</sub> To women
- <sub>3</sub> Treated the same
- <sub>4</sub> Don't know

C29. Does your supervisor give substantially more criticism to men or to women?

- <sub>1</sub> To men
- <sub>2</sub> To women
- <sub>3</sub> Treated the same
- <sub>4</sub> Don't know

**Now let's turn to something a little different.**

C30. Do you have formal supervisory responsibilities over other soldiers or civilian employees?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION C33 ON PAGE 14**

C31. About how many people do you directly supervise? **(If unsure, give your best guess.)**

- <sub>1</sub> 1 person
- <sub>2</sub> 2 people
- <sub>3</sub> 3 - 4 people
- <sub>4</sub> 5 - 9 people
- <sub>5</sub> 10 - 25 people
- <sub>6</sub> 26 - 99 people
- <sub>7</sub> 100 or more people

C32. How easy or difficult is it to get the following types of personnel that you supervise to carry out your orders in a satisfactory way? (Mark an  in one box on each line.)

	Very easy ▼	Some- what easy ▼	Neither easy nor diffi- cult ▼	Some- what difficult ▼	Very difficult ▼	Don't supervise these personnel ▼
a Relatively new soldiers ...	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
b Long-term soldiers .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
c Female soldiers .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
d Male soldiers .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
e Civilians .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
f Deployed male soldiers ...	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
g Deployed female soldiers ..	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
h Officers .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

C33. Not counting supervisors or people you may supervise, is there a group of people that you think of as your co-workers? That is, personnel with whom you work closely on your Army Reserve job?

- 1 Yes  
 2 No

C34. About how many co-workers would you say are in this group? (If unsure, give your best guess. Mark one box only.)

- 1 1 co-worker → GO TO QUESTION C36 ON PAGE 16  
 2 2 co-workers  
 3 3 - 4 co-workers  
 4 5 - 9 co-workers  
 5 10 - 25 co-workers  
 6 26 - 99 co-workers  
 7 100 or more co-workers

C35. In your workgroup are most of the personnel women, men, or are there about an equal number of men and women?

- 1 Most/all are women       3 About the same  
 2 Most/all are men       4 Don't know

The next questions are about your co-workers. In answering these questions, please think only about your co-workers. Do not include your supervisors or any soldiers or civilians you may supervise. For each of these statements, please mark an  in the box for whether the statement is very true, somewhat true, not very true, or not at all true of your co-workers.

	Very true	Some-what true	Not very true	Not at all true	Don't know
	▼	▼	▼	▼	▼
C36. In general, your co-workers are motivated to do a good job .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C37. In general, your co-workers are not doing their share of the work .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C38. There is at least one co-worker with whom you have serious conflicts .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C39. At least some of your co-workers are friendly to you .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C40. At least some of your co-workers are willing and able to give you useful advice on how to solve your job-related problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C41. At least some of your co-workers take a personal interest in you .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C42. You can rely on at least some of your co-workers when things get tough at work ...	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C43. At least some of your co-workers are helpful to you in getting your job done .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C44. You feel appreciated by at least some of your co-workers .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
C45. At least some of your co-workers are willing to provide help with your personal problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

C46. Are any of your co-workers civilian personnel?

1 Yes

2 No → GO TO QUESTION C51 ON PAGE 17

Thinking now of only your civilian co-workers, mark an  in the box for whether the statement is very true, somewhat true, not very true, or not at all true of your co-workers.

	Very true	Somewhat true	Not very true	Not at all true	Don't know
	▼	▼	▼	▼	▼

- C47. In general, your civilian co-workers are motivated to do a good job ..... <sub>1</sub> ..... <sub>2</sub> ..... <sub>3</sub> ..... <sub>4</sub> .. <sub>5</sub>
- C48. In general, your civilian co-workers are not doing their share of the work ..... <sub>1</sub> ..... <sub>2</sub> ..... <sub>3</sub> ..... <sub>4</sub> .. <sub>5</sub>
- C49. There is at least one civilian co-worker with whom you have serious conflict ..... <sub>1</sub> ..... <sub>2</sub> ..... <sub>3</sub> ..... <sub>4</sub> .. <sub>5</sub>
- C50. At least some of your civilian co-workers are friendly to you ..... <sub>1</sub> ..... <sub>2</sub> ..... <sub>3</sub> ..... <sub>4</sub> .. <sub>5</sub>

C51. In your job, how does the amount of assistance and support you receive from your female co-workers compare with that you receive from your male co-workers?

- <sub>1</sub> Females give much more assistance and support
- <sub>2</sub> Females give somewhat more assistance and support
- <sub>3</sub> Females and males give about the same amount of assistance and support
- <sub>4</sub> Males give somewhat more assistance and support
- <sub>5</sub> Males give much more assistance and support
- <sub>6</sub> Only have male co-workers/Only male co-workers in a position to assist
- <sub>7</sub> Only have female co-workers/Only female co-workers in a position to assist

## D. Other Stressors

In this section we will ask you about many different kinds of experiences that can be stressful.

### Stressful Life Events

We are going to ask you about a number of different types of stressors that happen to people. We will start with events that happen relatively infrequently in a person's lifetime, such as divorce or the loss of a loved one. Some of these events can be positive but nonetheless stressful, like having a baby. For each of these statements, please mark an  in the yes or no box.

in the yes or no box.

D1. During the past 12 months, did each of the following happen to you?

		Yes	No
		▼	▼
a	You got engaged .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b	You got married .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c	You moved into a different home or apartment .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
d	You and your lover moved in together .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
e	You had a baby .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
f	You adopted a child .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
g	Someone else moved into your household .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
h	A loved one died .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
i	A member of your household or family became seriously ill .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
j	You got a divorce or had an important relationship end .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
k	You separated for a few weeks or longer from your spouse, lover, or partner .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
l	Someone (else) moved out of your household .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
m	Your financial situation got substantially worse .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
n	You had a major job change .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
o	You moved to a different installation .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
p	Your husband, lover, or partner had an affair with someone else .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
q	A child of yours got into serious trouble .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
		Yes	No
		▼	▼
r	You were deployed/stationed overseas .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
s	You had a serious problem with a close friend or neighbor .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
t	You had serious legal problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
u	Something that was very valuable to you was stolen .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2

v You were promoted ..... <sub>1</sub> ... <sub>2</sub>

w You were stationed away from your spouse or your children under age 18 for a few weeks or longer ..... <sub>1</sub> ... <sub>2</sub>

D2. Which of the events in items D1a-D1w was the most stressful? (**Place the letter of the most stressful event in the first box below.**)

<sub>1</sub> Letter of item that was most stressful

<sub>2</sub> No events were stressful

<sub>3</sub> Don't know

D3. In the past 12 months have you received any kind of public assistance such as food stamps or welfare?

<sub>1</sub> Yes

<sub>2</sub> No

D4. During the past 12 months, did you have enough money each month to cover each of the following? **Please mark an  in the box of the response which best describes your situation.**

	No	Some-times	Yes	No young child
a Food .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
b Clothing .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
c Housing .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
d Transportation .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
e Fun—like seeing a movie or eating in a restaurant .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
f Child care .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

## Daily Hassles

D5. Below is a list of daily hassles many of us face. Please mark an  in the yes or no box for those items which recently have been causing significant problems for you or causing you substantial worry.

		Yes ▼	No ▼
a	Poor health of a family member .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b	Not enough money .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c	Debts .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
d	Too many responsibilities .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
e	Problems getting pregnant .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
f	Non-family members living with you .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
g	Trouble relaxing .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
h	Being lonely .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
i	Concerns about your own health .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
j	Sexual problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
k	Problems with child care .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
l	Problems with divorce or separation .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
m	Problems in your relationship with your lover/spouse/partner .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
n	Not having enough friends .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
o	Not being able to visit with people enough .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
p	Too much to do around the house .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
q	Not enough time for family .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
r	Problems with children's behavior .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
s	Financing children's education .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
t	Not getting enough rest or sleep .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
u	Problems with aging parents .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
v	Don't like work duties .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
w	Unchallenging work .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2

		Yes ▼	No ▼
x	Hassles from boss or supervisor .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
y	Problems getting along with co-workers .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
z	Job too demanding .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
aa	Problems on the job due to being a woman .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
bb	Other job dissatisfactions .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
cc	Worries about Army Reserves downsizing .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
dd	Legal problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
ee	Not enough energy .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
ff	Menstrual problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
gg	Sleep problems .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
hh	Prejudice or discrimination .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
ii	Your weight .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
jj	Crime .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
kk	Home maintenance .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
ll	Property, investment or taxes .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
mm	Poor quality or unsafe housing .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
nn	Problems with depression, anxiety, or your mental health .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
oo	Physical demands of training or military job .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2
pp	The daily commute to where you perform your Army Reserve duties ...	<input type="checkbox"/> 1	<input type="checkbox"/> 2
qq	Any other daily worry or hassle? <b>(Please write in below.)</b> .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2

D6. Which of these are the three most troublesome hassles in your life? **(Record letters of the three items in the boxes below.)**

Letter(s) of item that was most stressful

Letter(s) of item that was most stressful

Letter(s) of item that was most stressful

There are no troublesome hassles in my life → **GO TO QUESTION D8**

D7. Altogether, how much do the various hassles that you have trouble or bother you?

1 A little

3 A lot

2 A moderate amount

4 An extreme amount

D8. Have you been pregnant at any time in the past 5 years?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION D11 ON PAGE 25

D9. Were you either in the active duty Army or Reserves at that time?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION D11 ON PAGE 25

D10. How much of a problem were the following situations? Please mark an  in the box of the response which best describes your situation.

	No or little problem	Moderate problem	Very much of a problem	Still pregnant
	▼	▼	▼	▼
a Having to carry out strenuous duties late in your pregnancy .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
b Negative attitudes of supervisors or co-workers toward your being pregnant .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	
c After giving birth, having to return to strenuous duties before you were physically able to do so .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d Taking time off to care for a sick child .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e Finding good, affordable child care during your duty hours .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

## Gender-Related Experiences

In this section you will be asked about experiences you have had in the past 12 months that were related to your being a woman, including unwanted sex-related attention.

D11. Unwanted sex-related attention is sex/gender-related talk and/or behavior that was unwanted, uninvited, and in which you did not participate willingly.

How often during the past 12 months have you been in situations involving...

- military personnel
- on or off duty
- on or off base/post

and/or

- civilian employees and contractors employed in your workplace where one or more of these individuals (of either gender):

Please mark an  in the box.

	Very often	Often	Some-times	Once or twice	Never
	▼	▼	▼	▼	▼
a Repeatedly told sexual stories or jokes that were offensive to you? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b Whistled, called, or hooted at you in a sexual way? ....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c Made unwelcome attempts to draw you into a discussion of sexual matters (for example, attempted to discuss or comment on your sex life)? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d Made crude and offensive sexual remarks, either publicly (for example, in your workplace) or to you privately? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e Treated you "differently" because of your sex (for example, mistreated, slighted, or ignored you)? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f Made offensive remarks about your appearance, body, or sexual activities? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g Continued to ask you for dates, drinks, dinner, etc, even though you said no and made it clear you weren't interested? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h Made you feel like the person was trying to bribe you with some sort of reward or special treatment (such as faster promotions or better treatment) to engage in sexual behavior? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i Made you feel threatened or that the person would get even with you or treat you poorly if you didn't cooperate sexually (for example, by mentioning an upcoming review)? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j Made unwanted attempts to stroke, fondle, or kiss you? .	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k Other sex-related behavior not listed above? (Unless you mark "never," please write in below.) .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

D12. Do you consider any of the behaviors (a-k) which you marked as happening to you in Question D11 to have been sexual harassment?

- <sub>1</sub> None were sexual harassment
- <sub>2</sub> Some were sexual harassment; some were not sexual harassment
- <sub>3</sub> All were sexual harassment
- <sub>4</sub> Doesn't apply—I marked "never" to every item in Question D11 → **GO TO QUESTION D23 ON PAGE 29**

D13. Did these situations occur at work (the place where you perform your military duties) or some other place?

- <sub>1</sub> All of it occurred at work → **GO TO QUESTION D15 ON PAGE 27**
- <sub>2</sub> Most of it occurred at work; some at other places
- <sub>3</sub> Some of it occurred at work; most at other places
- <sub>4</sub> None of it occurred at work; all at other places

D14. Where else did these incidents occur? (Mark all that apply.)

- <sub>1</sub> Barracks
- <sub>2</sub> Bachelor Officer Quarters (BOQs)
- <sub>3</sub> Bachelor NCO Quarters (BNCOQs)
- <sub>4</sub> Other places on-post
- <sub>5</sub> Other places off-post

D15. Did these situations occur during duty hours or while you were off-duty?

- <sub>1</sub> All of it occurred during duty hours
- <sub>2</sub> Most of it occurred during duty hours; some off-duty
- <sub>3</sub> Some of it occurred during duty hours; most off-duty
- <sub>4</sub> None of it occurred during duty hours; all off-duty

D16. Who was that person(s)? (Mark all that apply.)

- <sub>1</sub> Your immediate military supervisor
- <sub>2</sub> Your unit commander
- <sub>3</sub> Other military personnel of higher rank/grade than you
- <sub>4</sub> Your military co-worker(s)
- <sub>5</sub> Your military subordinate(s)
- <sub>6</sub> Your military training instructor
- <sub>7</sub> Other military person(s)

- <sub>8</sub> Your immediate civilian supervisor
- <sub>9</sub> Your civilian co-worker(s)
- <sub>10</sub> Your civilian subordinate(s)
- <sub>11</sub> Your civilian training instructor
- <sub>12</sub> Other civilian person(s)
- <sub>13</sub> Other or unknown person(s)

D17. Taken altogether, how upsetting was this or were these incidents to you?

- <sub>1</sub> Very upsetting
- <sub>2</sub> Somewhat upsetting
- <sub>3</sub> Not very upsetting
- <sub>4</sub> Not upsetting

D18. Did you report this or any of these incidents?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION D23 ON PAGE 29**

D19. Did you report the situation/incident that had the greatest negative effect on you?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION D23 ON PAGE 29**
- <sub>3</sub> There was only one situation/incident which I reported
- <sub>4</sub> There was only one situation/incident which I did not report → **GO TO QUESTION D23 ON PAGE 29**

D20. Taken altogether, how satisfied were you with the actions taken as a result of your report(s) or complaint(s)? (**“Somewhat satisfied” or “not very satisfied” could include satisfaction with one complaint but dissatisfaction with another complaint.**)

- <sub>1</sub> Very satisfied
- <sub>2</sub> Somewhat satisfied
- <sub>3</sub> Not very satisfied
- <sub>4</sub> Very dissatisfied

D21. Were there any negative consequences for you of having reported or complained (for example, being forced to transfer to another installation)?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION D23 ON PAGE 29**

D22. How serious were any negative consequences for you of having reported or complained?

- <sub>1</sub> No negative consequences
- <sub>2</sub> Minimal negative consequences

- <sub>3</sub> Moderate negative consequences
- <sub>4</sub> Serious negative consequences

D23. Some gender-related harassment is not sexual in nature. For example, an officer can make life hard on soldiers or lower ranking officers by giving them more unpleasant, strenuous, demanding, or demeaning duties than the officer gives others. **IN THE PAST YEAR**, how often do you believe you were given unusually unpleasant, difficult, or demeaning duties just because you were a woman (or because of any restrictions you might have as a woman, such as being pregnant)?

- <sub>1</sub> Never happened in the past year
- <sub>2</sub> Rarely happened in the past year
- <sub>3</sub> Sometimes happened in the past year
- <sub>4</sub> Often happened in the past year
- <sub>5</sub> Very often happened in the past year

D24. Do you feel you have ever been discriminated against in the **Army or Reserves**, in any other way because you were a woman, for example, not getting a promotion you thought you were entitled to because you were a woman?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION D26 ON PAGE 30**

D25. How seriously has the impact of such discrimination been on you—personally and professionally?

- |  |   |
|--|---|
| <input type="checkbox"/> <sub>1</sub> Not at all serious | <input type="checkbox"/> <sub>3</sub> Very serious      |
| <input type="checkbox"/> <sub>2</sub> Somewhat serious   | <input type="checkbox"/> <sub>4</sub> Extremely serious |

## Racial/Ethnic Discrimination

Please complete the following section if you are a minority, including being Black/African American or Spanish/Hispanic. If you are White/Caucasian and you are not Spanish/Hispanic, go to Question D31 on page 31.

D26. Do you believe that being a minority member has hindered or hurt your career and opportunities in the Army Reserves?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION D28

D27. How much do you think being a minority member has hindered your career and opportunities in the Army Reserves?

<sub>1</sub> A little bit

<sub>2</sub> Somewhat

<sub>3</sub> Very much

D28. Do you believe that being a minority member has helped your career and opportunities in the Army Reserves?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION D30

D29. How much do you think being a minority member has helped your career and opportunities in the Army Reserves?

<sub>1</sub> A little bit

<sub>2</sub> Somewhat

<sub>3</sub> Very much

D30. As a minority member, how would you say your ability to advance compares with civilian life?

<sub>1</sub> Better able to advance in the Army Reserves

<sub>2</sub> About the same

<sub>3</sub> Better able to advance in civilian life

**Traumatic Life Events**

The final set of stressful events we will ask you about are known as traumatic events. They are the most unusual and often the most stressful events such as being sexually or physically assaulted or being in a serious accident. Have any of the following events ever happened to you? For each of these statements below, please mark an  in the yes or no box.

- |   | Yes<br>▼                   | No<br>▼                    |
|---|----------------------------|----------------------------|
| D31. Has a man or boy ever made you have sex by using force or threatening to harm you or someone close to you? Just so there is no mistake, by sex we mean putting a penis (a man's sexual part) into your vagina (a woman's sexual part)? .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D32. Has anyone ever made you have oral sex by force or threat of harm? Just so there is no mistake, by oral sex we mean that a man or boy put his penis in your mouth or someone put their mouth or tongue into your vagina or another woman forced you to put your mouth on her vagina? ..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D33. Has anyone ever made you have anal sex by force or threat of harm? Just so there is no mistake, by anal sex we mean a man or boy put his penis into your anus (your rectum or "butt") .....  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D34. Has anyone ever put fingers or objects into your vagina or anus against your will by using force or threats? .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

**IF QUESTION D31-D34 ARE ALL NO, GO TO QUESTION D38.**

- |   |                            |                            |
|---|----------------------------|----------------------------|
| D35. Did any of these things happen to you in the past 12 months? .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D36. How about since you entered the Army Reserves? .....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D37. Did any of these things happen to you before you were 16? .....  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D38. Have there been any (other) situations when someone <u>attempted to have</u> vaginal, oral, or anal sex with you or tried to put objects inside your vagina or anus by force or threats but did not succeed? ..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

**IF QUESTION D38 IS NO, GO TO QUESTION D42 ON PAGE 32.**

- |   |                            |                            |
|---|----------------------------|----------------------------|
| D39. Did anything like this happen in the past 12 months? ..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| D40. How about since you entered the Army Reserves? .....       | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

Yes	No
▼	▼

D41. Did anything like this happen before you were 16? ..... <sub>1</sub> ... <sub>2</sub>

D42. Has anyone ever had any other type of forced sexual contact with you, for example, their touching your sexual parts or your being forced to touch their sexual parts, by force or threats? ..... <sub>1</sub> ... <sub>2</sub>

**IF QUESTION D42 IS NO, GO TO QUESTION D46.**

D43. Did anything like this happen in the past 12 months? ..... <sub>1</sub> ... <sub>2</sub>

D44. How about since you entered the Army Reserves? ..... <sub>1</sub> ... <sub>2</sub>

D45. Did anything like this happen before you were 16? ..... <sub>1</sub> ... <sub>2</sub>

D46. Not counting sexual assaults you already checked above, has anyone (including family members) ever attacked you with a gun, knife, or some other weapon? ..... <sub>1</sub> ... <sub>2</sub>

D47. Not counting any sexual or physical assaults you already checked above, has anyone ever attacked you without a weapon but with such force that they did, or could have, seriously injured you or could have even killed you? Examples would include someone beating you with their fist or throwing you against a wall. .... <sub>1</sub> ... <sub>2</sub>

D48. Not counting any sexual or physical assaults you already checked above, has anyone intentionally hurt or injured you so badly that you had to see a doctor or you should have gotten medical care but didn't, for example, your bone was broken, you were knocked unconscious, or you were cut so badly it didn't stop bleeding for hours? ..... <sub>1</sub> ... <sub>2</sub>

**IF QUESTIONS D46-D48 ARE ALL NO, GO TO QUESTION D52.**

D49. Did any serious physical assault or threat like the ones you checked above happen to you in the past 12 months? ..... <sub>1</sub> ... <sub>2</sub>

D50. Did any such incident happen since you entered the Army Reserves? ..... <sub>1</sub> ... <sub>2</sub>

D51. Did any such incident happen before you were 16? ..... <sub>1</sub> ... <sub>2</sub>

D52. Did any boyfriend, husband, ex-husband, or lover ever slap, hit, punch, or otherwise physically hurt you on repeated occasions over a period of weeks, months, or years, even if the injuries were not serious? ..... <sub>1</sub> ... <sub>2</sub>

**IF QUESTION D52 IS NO, GO TO QUESTION D54.**

Yes	No
▼	▼

D53. Did anything like this happen in the past 12 months? ..... <sub>1</sub> ... <sub>2</sub>

Mark an  in one of the boxes in Column 1

	Column 1 "Ever"		Column 2 "If Yes"	
	Yes ▼	No ▼	Past 12 mos. ▼	More than 12 mos. ▼
D54. Have you ever been in a combat zone or a police action situation in which you were afraid you might be killed or seriously injured by the enemy? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>
D55. Have you ever been in a serious accident at work, in a car, or somewhere else? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>
D56. Have you ever been in a natural disaster, such as a tornado, hurricane, or earthquake? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>
D57. Have you ever been in any other situation in which you were afraid you might be killed or seriously injured (other than those we already asked about)? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>
D58. Have you ever been in a situation where you had to care for, handle, or spend a lot of time around dead, mutilated, or seriously wounded individuals (e.g., nursing badly injured soldiers)? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>
D59. Did you ever have a loved one killed in a crime or accident or natural disaster? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>
D60. Did you ever see someone seriously injured, mutilated, or violently killed? .....	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>1</sub> ...	<input type="checkbox"/> <sub>2</sub>

**IF QUESTIONS D54-D60 ARE ALL NO, GO TO QUESTION E1 ON PAGE 34.**

**D61. NOW PLEASE GO BACK AND PLACE AN  IN ONE OF THE BOXES IN COLUMN 2 FOR WHETHER INCIDENTS IN QUESTIONS D54-60 OCCURRED IN THE PAST 12 MONTHS OR LONGER AGO THAN THAT.**

## E. Positive and Negative Effects of Your Family and Personal Life

If you are married or living as married, the term spouse is used in this questionnaire to refer to your husband or the person with whom you live as married.

E1. What is your current marital status?

- <sub>1</sub> Married or living as married  
<sub>2</sub> Separated and not living as married → GO TO QUESTION E6 ON PAGE 35  
<sub>3</sub> Divorced and not living as married → GO TO QUESTION E6 ON PAGE 35  
<sub>4</sub> Widowed and not living as married → GO TO QUESTION E6 ON PAGE 35  
<sub>5</sub> Single, never married, and not living as married → GO TO QUESTION E6 ON PAGE 35

E2. Is your spouse/partner currently in the active duty Army or Reserves?

- <sub>1</sub> Yes  
<sub>2</sub> No

E3. How long have you been married or living as married? (Please round to the nearest whole year.)

Years

E4. Would you say your relationship with your spouse is:

- <sub>1</sub> Very good                      <sub>4</sub> Not very good  
<sub>2</sub> Pretty good                      <sub>5</sub> Pretty bad  
<sub>3</sub> Mixed/up and down

E5. Do you think being in the Army Reserves helps your relationship, hurts your relationship, or has no effect on your relationship with your spouse?

- <sub>1</sub> Helps a lot                      <sub>4</sub> Hurts somewhat  
<sub>2</sub> Helps somewhat                      <sub>5</sub> Hurts a lot  
<sub>3</sub> Has no effect

E6. Do you have any children under age 18?

- <sub>1</sub> Yes  
<sub>2</sub> No → GO TO QUESTION E12 ON PAGE 36

E7. How many of your children are under age 12?

Number of children under age 12

E8. How many of your children are between the ages of 12 and 17?

Number of children between 12 and 17

E9. How many of your children under age 18 are living with you (at your present duty location)?

Number of children under 18 living with you

**IF YOU HAVE NO CHILDREN UNDER AGE 18, GO TO QUESTION E12 ON PAGE 36.**

E10. Does your child or any of your children under age 18 give you serious problems or difficulties, more than the average child? This could include, for example, problems at home, at school, or with authorities?

<sub>1</sub> Yes

<sub>2</sub> No

E11. The demands of rearing children can increase our stress levels in some ways. But, do you find that your child or any of your children under age 18 who lives with you also helps to substantially relieve your stress, for example by taking your mind off of work, by forcing you to do more leisure activities, or by their showing their love for you?

<sub>1</sub> At least one of my children under 18 helps substantially to relieve my stress

<sub>2</sub> None of my children under 18 help(s) substantially to relieve my stress

<sub>3</sub> No child under age 18 lives with me

E12. This is the end of the questions about stressors. Is there anything else about your Army Reserves job or life in the Army Reserves that we have not asked about that you find particularly stressful?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION F1 ON PAGE 37**

E13. Briefly, what is that? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## F. Support from Family and Friends

In the following questions we ask about your relationships with family and friends and any support or help they may provide for you. Please be sure to include your spouse or lover when thinking about family and friends. If your answer is different for family than for friends, answer the question for whichever group provides you with the most help or support.

F1. Are you satisfied with how often you see your friends and relatives; that is, do you see them as often as you want to?

- <sub>1</sub> Very dissatisfied
- <sub>2</sub> Somewhat dissatisfied
- <sub>3</sub> Satisfied

F2. How satisfied are you with the kinds of relationships you have with your family and friends?

- <sub>1</sub> Very dissatisfied
- <sub>2</sub> Somewhat dissatisfied
- <sub>3</sub> Satisfied

F3. Do you wish that your family and friends would give you more help?

- <sub>1</sub> Yes
- <sub>2</sub> No

Please mark an  in the box of the response which best describes your situation.

	Hardly ever	Some of the time	Most of the time	Don't know
F4. In times of trouble, can you count on at least some of your family and friends? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F5. When you are with your family and friends how often do you feel lonely? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F6. Does it seem that your family and friends understand you? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F7. Do you feel useful to your family and friends? ...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F8. Do you know what is going on with your family and friends? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F9. When you are talking with your family and friends, do you feel you are being listened to? ...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F10. Do you feel that you have a definite role in your family and among your friends? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
F11. Can you talk about your deepest problems with at least some of your family and friends most of the time, some of the time, or hardly ever? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

F12. Do you have any hobbies, sports, or other activities that greatly help reduce your stress level?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION G1 ON PAGE 39**

F13. On the average, about how many hours each week do you participate in activities that greatly help to reduce your stress?

<sub>1</sub> 0 - 3 hours

<sub>4</sub> 11 - 13 hours

<sub>2</sub> 4 - 6 hours

<sub>5</sub> 14 or more hours

<sub>3</sub> 7 - 10 hours

## G. Outcomes That Can Be Affected by Stress

### Your Health

G1. In general, would you say your health is:

- <sub>1</sub> Excellent
- <sub>2</sub> Very good
- <sub>3</sub> Good
- <sub>4</sub> Fair
- <sub>5</sub> Poor

Please mark an  in the box that best describes your situation.

G2. How often during the past 4 weeks did you...

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
a	get enough sleep to feel rested upon waking in the morning? .....					
	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
b	awaken short of breath or with a headache? .....					
	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
c	have trouble falling asleep? .....					
	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
d	awaken during your sleep time and have trouble falling asleep again? .....					
	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
e	have trouble staying awake during the day? .....					
	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
f	get the amount of sleep you needed? ..					
	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>

G3. Have you ever had high blood pressure?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION G5 ON PAGE 40**
- <sub>3</sub> Don't know

G4. Have you had high blood pressure in the past year?

- <sub>1</sub> Yes
- <sub>2</sub> No
- <sub>3</sub> Don't know

G5. How much are you troubled or bothered by having to stay within the Army Reserves weight standard for your height?

- <sub>1</sub> Very troubled
- <sub>2</sub> Somewhat troubled
- <sub>3</sub> Not troubled at all

**Please answer the following questions by telling us which answer best applies to you. We would like to know if you have had any medical complaints and how your health has been in general during the past week. Remember that we want to know about PRESENT AND RECENT COMPLAINTS, NOT THOSE YOU HAD IN THE PAST.**

G6. Have you recently been feeling perfectly well and in good health?

- <sub>1</sub> Better than usual
- <sub>2</sub> Same as usual
- <sub>3</sub> Worse than usual
- <sub>4</sub> Much worse than usual

Please mark an  in the box that best describes your situation.

Have you recently:	Not at all	No more than usual	Somewhat more than usual	Much more than usual
	▼	▼	▼	▼
G7. Been feeling in need of some medicine to pick you up? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G8. Been feeling run down and out of sorts? ..	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G9. Felt that you are ill? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G10. Been getting any pains in your head? ....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G11. Been getting a feeling of tightness or pressure in your head? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G12. Been having hot or cold spells? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

### Your Mental Health

Have you recently:

G13. Lost much sleep over worry? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G14. Had difficulty in staying asleep? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G15. Felt constantly under strain (stress)? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G16. Been getting edgy and bad-tempered? ....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G17. Been getting scared or panicky for no good reason? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G18. Found everything getting to be too much for you? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
G19. Been feeling nervous and uptight all the time? .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

G20. Have you recently been managing to keep yourself busy and occupied?

<input type="checkbox"/> 1 More so than usual	<input type="checkbox"/> 3 Somewhat less than usual
<input type="checkbox"/> 2 Same as usual	<input type="checkbox"/> 4 Much less than usual

G21. Have you recently been taking longer to do the things you do?

<input type="checkbox"/> 1 Quicker than usual	<input type="checkbox"/> 3 Longer than usual
<input type="checkbox"/> 2 Same as usual	<input type="checkbox"/> 4 Much longer than usual

G22. Have you recently felt on the whole you were doing things well?

<input type="checkbox"/> 1 Better than usual	<input type="checkbox"/> 3 Less well than usual
--	---

<sub>2</sub> About the same

<sub>4</sub> Much less well

Please mark an  in the box that best describes your situation.

Recently, have you:

	More than usual	About same as usual	Less than usual	Much less than usual
G23. Been satisfied with the way you've carried out your tasks? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
G24. Felt that you are playing a useful part in things? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
G25. Felt capable of making decisions about things? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
G26. Been able to enjoy your normal day-to-day activities? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

	Not at all	No more than usual	Some-what more than usual	Much more than usual
G27. Been thinking of yourself as a worthless person? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
G28. Felt that life is entirely hopeless? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
G29. Felt that life isn't worth living? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

G30. Have you recently thought of the possibility that you might take your own life?

<sub>1</sub> Definitely not  
<sub>2</sub> I don't think so

<sub>3</sub> Has crossed my mind  
<sub>4</sub> Definitely have

Please mark an  in the box that best describes your situation.

Have you recently...	Not at all	No more than usual	Some-what more than usual	Much more than usual
G31. Found at times you couldn't do anything because your nerves were too bad? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
G32. Found yourself wishing you were dead and away from it all? .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

G33. Have you recently found that the idea of taking your life kept coming into your mind?

<sub>1</sub> Definitely not

<sub>3</sub> Has crossed my mind

<sub>2</sub> I don't think so

<sub>4</sub> Definitely have

G34. Do you currently have any active health problems or injuries that cause you pain or interfere with your living a full and active lifestyle?

<sub>1</sub> Yes

<sub>2</sub> No

## H. Substance Abuse

H1. Altogether in your lifetime, have you had more than 5 drinks of an alcoholic beverage?  
(For example, beer, wine, wine coolers, whiskey and mixed drinks.)

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION H15 ON PAGE 46

**These next questions ask about your use of alcoholic beverages.**

		Yes	No
		▼	▼
H2.	Do you feel you are a normal drinker? .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H3.	Do friends and relatives think you are a normal drinker? .....	<input type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H4.	Have you ever attended a meeting of Alcoholics Anonymous? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H5.	Have you ever lost friends, boyfriends, or girlfriends because of drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H6.	Have you ever gotten into trouble at work because of drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H7.	Have you ever neglected your obligations, your family or your work for 2 or more days in a row because you were drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H8.	Have you ever had delirium tremors (DT's), severe shaking, heard voices or seen things that weren't there after heavy drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H9.	Have you ever gone to anyone for help with your drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H10.	Have you ever been in a hospital because of drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>
H11.	Have you ever been arrested for drunk driving or driving after drinking? .....	<input checked="" type="checkbox"/> <sub>1</sub>	... <input type="checkbox"/> <sub>2</sub>

H12. Did you mark an  in any of the shaded boxes in Questions H4 to H11?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION H15 ON PAGE 46

H13. In the past 12 months, have you had any of these kinds of problems or experiences with drinking?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION H15**

H14. In the past 30 days, have you had any of these kinds of problems or experiences with drinking?

<sub>1</sub> Yes

<sub>2</sub> No

H15. Have you ever used any illegal drugs such as marijuana, hashish, cocaine or heroin more than 5 times?

<sub>1</sub> Yes

<sub>2</sub> No

H16. At any time in your life, have you more than 5 times used prescription drugs like speed, diet pills, sedatives, sleeping pills, opiates or pain killers without a prescription or more than was prescribed to get high or for other non-medical effects?

<sub>1</sub> Yes

<sub>2</sub> No

**IF NO TO QUESTIONS H15 AND H16, GO TO QUESTION H23 ON PAGE 48.**

H17. In the past 12 months, have you used any illegal drugs or used any prescription drugs to get high or for non-medical effects?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION H20 ON PAGE 47**

H18. Have you used any of these in the past 30 days?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION H20**

H19. How often have you used them in the past 30 days?

<sub>1</sub> Every day or almost every day

<sub>4</sub> A couple of times a month

<sub>2</sub> More than once a week

<sub>5</sub> About once a month

<sub>3</sub> About once a week

<sub>6</sub> Less than once a month

H20. Have you ever had any problems from using illegal drugs or from using any prescription drugs other than as prescribed by a doctor? (Such problems might include trouble at work, with the law, with family members and other people, health problems or psychological problems.)

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION H23 ON PAGE 48**

H21. In the past 12 months, have you had any such problems from using illegal drugs or using prescription drugs other than as prescribed?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION H23 ON PAGE 48**

H22. How about in the past 30 days, have you had such problems?

<sub>1</sub> Yes

<sub>2</sub> No

### **Injuries, Impairment, and Disability**

H23. Beginning yesterday and going back 12 months, did you receive any injuries as a result of your work or your training?

<sub>1</sub> Yes

<sub>2</sub> No → **GO TO QUESTION H26**

H24. Would you say this injury or the most serious of these injuries was mild, moderate or severe?

- <sub>1</sub> Mild
- <sub>2</sub> Moderate
- <sub>3</sub> Severe

H25. Did you talk with a doctor, nurse or other professional about this injury?

- <sub>1</sub> Yes
- <sub>2</sub> No

H26. Did you receive any other injuries in the past 12 months, for example at home or during recreational activities?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION H29 ON PAGE 49**

H27. Would you say this injury or the most serious of these injuries mild, moderate or severe?

- <sub>1</sub> Mild
- <sub>2</sub> Moderate
- <sub>3</sub> Severe

H28. Did you talk with a doctor, nurse or other professional about this injury?

- <sub>1</sub> Yes
- <sub>2</sub> No

H29. In the past 12 months, have you talked with a doctor, nurse or other health professional about being pregnant, becoming pregnant or problems with a pregnancy?

- <sub>1</sub> Yes
- <sub>2</sub> No

H30. In the past 12 months, have you talked with a doctor, nurse or other health professional about any health problem or illness (besides an injury or pregnancy)?

- <sub>1</sub> Yes
- <sub>2</sub> No → **GO TO QUESTION H32**

H31. How many times in the past 12 months did you talk with a doctor, nurse or other health professional about any health problem or illness (besides injury or pregnancy)?

Times

H32. Beginning yesterday and going back 30 days, were there any days that you were totally unable to work or carry out your normal activities?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION H37 ON PAGE 50

H33. How many days out of the past 30 days were you totally unable to work or carry out your normal activities?

Days (Answer should be between 0 and 30.)

H34. How many of the days in Question H33 were you totally unable to work or carry out your normal activities because of problems with emotions, nerves, your mental health, alcohol or drugs?

Days (Answer should be no larger than answer in H33.)

H35. How many of the days in Question H33 were you totally unable to work or carry out your normal activities because of an injury?

Days (Answer should be no larger than answer in H33.)

H36. How many of the days in Question H33 were you totally unable to work or carry out your normal activities because of a physical health problem or illness (other than pregnancy)?

Days (Answer should be no larger than answer in H33.)

H37. Aside from any days you were totally unable to work or carry out activities, were there any (other) days out of the past 30 days that you had to cut down on what you did or did not get as much done as usual?

<sub>1</sub> Yes

<sub>2</sub> No → GO TO QUESTION I1 ON PAGE 52

H38. How many days out of the past 30 days did you have to cut down on what you did or did not get as much done as usual?

Days (Answer should be between 0 and 30.)

H39. How many of the days in Question H38 did you have to cut down on your work or normal activities because of problems with emotions, nerves, your mental health, alcohol or drugs?

Days (Answer should be no larger than answer in H38.)

H40. How many of the days in Question H38 did you have to cut down on your work or normal activities because of an injury?

Days (Answer should be no larger than answer in H38.)

H41. How many of the days in Question H38 did you have to cut down on your work or normal activities because of a physical health problem or illness (other than pregnancy)?

Days (Answer should be no larger than answer H38.)

H42. For the following question, please think about any days you had to cut down on what you did. On a scale from 0 to 10, where zero means you didn't carry out your work or normal activities at all and 10 means you carried out all of your normal work and activities, what number represents how much you got done, on the average, on the days you had to cut down. Mark and  in the box above the number that represents how much you got done.

<input type="checkbox"/>										
0	1	2	3	4	5	6	7	8	9	10

## I. Retention and Performance

I1. If a good friend of yours was interested in joining the Army Reserves at the same rank you did, what would you tell her?

- <sub>1</sub> Advise her against it
- <sub>2</sub> Have doubts about recommending it
- <sub>3</sub> Strongly recommend it
- <sub>4</sub> Don't know

I2. Knowing what you know now, if you had to decide all over again whether to join the Army Reserves, what would you decide?

- <sub>1</sub> Decide definitely not to join
- <sub>2</sub> Have some second thoughts
- <sub>3</sub> Decide without hesitation to join
- <sub>4</sub> Don't know

I3. Taking everything into consideration, how likely is it that you will choose to voluntarily leave the Army Reserves within the next year?

- <sub>1</sub> Very likely
- <sub>2</sub> Somewhat likely
- <sub>3</sub> Not very likely
- <sub>4</sub> Not at all likely
- <sub>5</sub> Don't know

I4. Sometimes soldiers are forced to leave the Army Reserves because of cut backs even though they would like to stay in. How likely is it that you will be forced to leave the Army Reserves because of cutbacks and downsizing within the next year?

- <sub>1</sub> Very likely
- <sub>2</sub> Somewhat likely
- <sub>3</sub> Not very likely
- <sub>4</sub> Not at all likely
- <sub>5</sub> Don't know

15. Which one of the following describes your current Army Reserves career intentions if you are not forced out due to down-sizing and/or cutbacks?

- <sub>1</sub> Definitely stay in until retirement
- <sub>2</sub> Probably stay in until retirement
- <sub>3</sub> Definitely stay in beyond my present obligation but not necessarily until retirement
- <sub>4</sub> Probably stay in beyond my present obligation but not necessarily until retirement
- <sub>5</sub> Definitely leave upon completion of my present obligation
- <sub>6</sub> Probably leave upon completion of my present obligation

16. How many years has it been since you received your current rank?

- <sub>1</sub> Less than 1 year
- <sub>2</sub> 1 year
- <sub>3</sub> 2 years
- <sub>4</sub> 3 years
- <sub>5</sub> 4 years
- <sub>6</sub> 5 years
- <sub>7</sub> 6 years
- <sub>8</sub> 7 years
- <sub>9</sub> 8 years
- <sub>10</sub> 9 years or more

17. If you remain in the Army Reserves how likely is it that you will be promoted in the future?

- <sub>1</sub> Does not apply; I have attained the highest rank for my career field → **GO TO QUESTION I10 ON PAGE 55**
- <sub>2</sub> Does not apply; I will leave/retire before I am eligible again → **GO TO QUESTION I10 ON PAGE 55**
- <sub>3</sub> Extremely likely
- <sub>4</sub> Somewhat likely
- <sub>5</sub> Not sure
- <sub>6</sub> Somewhat unlikely
- <sub>7</sub> Extremely unlikely

18. Overall, how would you rate the chances for promotion within your primary Career Management Field (CMF) or Basic Branch?

- <sub>1</sub> Much better than others → GO TO QUESTION I10 ON PAGE 55
- <sub>2</sub> A little better than others → GO TO QUESTION I10 ON PAGE 55
- <sub>3</sub> About the same as others → GO TO QUESTION I10 ON PAGE 55
- <sub>4</sub> A little worse than others
- <sub>5</sub> Much worse than others
- <sub>6</sub> Don't know → GO TO QUESTION I10 ON PAGE 55

19. Is this because (Mark all that apply.):

- <sub>1</sub> Your performance has been below average
- <sub>2</sub> Being a woman lowers your opportunities and/or chances of promotion
- <sub>3</sub> Being a minority lowers your opportunities and/or chances of promotion
- <sub>4</sub> Personal conflict between you and a supervisor or other superior officer
- <sub>5</sub> Other reasons

I10. In the past 12 months have you received any of the following recognitions for outstanding performance?

- <sub>1</sub> Memorandum of appreciation or commendation
- <sub>2</sub> Certificate of appreciation or recommendation
- <sub>3</sub> Special evaluation report for outstanding performance
- <sub>4</sub> Time off from duty (individually or as a unit) for outstanding performance
- <sub>5</sub> Military medal or ribbon for outstanding performance

I11. In the past 12 months have you received an adverse efficiency report or performance counseling?

- <sub>1</sub> Yes
- <sub>2</sub> No

I12. In the past 12 months have you received any disciplinary action?

- <sub>1</sub> Yes
- <sub>2</sub> No

I13. In the next 12 months do you have any concerns that you may receive either an adverse efficiency report or a disciplinary action?

- <sub>1</sub> Yes
- <sub>2</sub> No

I14. In your last performance evaluation, how were you rated?

- 1 Exceeding standards or expectations
- 2 Meeting standards or expectations
- 3 Below standards or expectations

I15. Below are a list of things people say they feel good about as a soldier/officer. Please mark ALL those below that you feel good about as a soldier/officer.

- 1 Pride in being in the Army Reserves
  - 2 Doing something important
  - 3 I like my job
  - 4 Good benefits
  - 5 Opportunities I may not have had otherwise
  - 6 The people I work for or work with
  - 7 Attitudes and/or commitment of soldiers/officers
  - 8 Other (Please write in.) \_\_\_\_\_
- 

Please place your completed survey in the box.

Thank you for completing this survey!

Time spent completing survey \_\_\_\_\_

**APPENDIX J**  
**CODE BOOK**

/\* 1998 DEPARTMENT OF THE ARMY \*/  
 /\* SURVEY OF STRESSORS AND THEIR IMPACTS ON \*/  
 /\* WOMEN IN THE ARMY/ARMY RESERVES \*/

FMT_001		3	FORMAT PAGE 001
PROJ_NO		4	PROJECT NUMBER (6729)
PROJ_SUB		3	PROJECT SUB NUMBER (000)
FORM_NO		2	PROJECT FORM NUMBER (01)
KEYDATE		6	KEYING DATE (YR/MO/DAY)
KEYTIME		4	KEYING TIME (HHMM)
KEYOPER		4	KEYER OPERATOR ID
KEYING	A	1	KEYING STATUS
VERIFY	A	1	VERIFY INDICATOR
VERDATE		6	VERIFY DATE (YR/MO/DAY)
VERTIME		4	VERIFY TIME (HHMM)
VEROPER	A	4	VERIFY OPERATOR ID
BATCH	A	5	BATCH NUMBER
FILE	A	10	DATA FILE NAME - RESERVED
DID		8	QUESTIONNAIRE ID (REQUIRED)
ESC_001	A	1	ESCAPE CHARACTER - FORMAT PAGE 001
FMT_002		3	FORMAT PAGE 002
A1		2	AGE ON LAST BIRTHDAY

RANGE = 18 - 65  
RANGE = -9 - -1

- A2                    2   # YEARS SERVED ACTIVE DUTY IN ARMY  
                              RANGE = 00 - 99  
                              RANGE = -9 - -1
- A3                    2   # YEARS SERVED IN ARMY RESERVES  
                              RANGE = 00 - 99  
                              RANGE = -9 - -1
- A4                    2   WHAT IS YOUR CURRENT RANK?  
                              01 = E1 - E4  
                              02 = E5 - E6  
                              03 = E7 - E9  
                              04 = WO1 - WO2  
                              05 = WO3 - WO5  
                              06 = O1 - O3  
                              07 = O4 - O6  
                              08 = O7 - O10  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD
- A5                    2   WHAT IS HIGHEST LEVEL EDUCATION NOW?  
                              01 = DID NOT GRADUATE FROM HIGH SCHOOL  
                              02 = GED OR ABE CERTIFICATE  
                              03 = HIGH SCHOOL GRADUATE  
                              04 = TRADE OR TECHNICAL SCHOOL GRADUATE  
                              05 = SOME COLLEGE BUT NOT A 4 YEAR DEGREE  
                              06 = 4 YEAR COLLEGE DEGREE (BA, BS, EQUIV)  
                              07 = GRAD OR PROFESS STUDY BUT NO GRAD DEGRE  
                              08 = GRADUATE OR PROFESSIONAL DEGREE  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD
- A6                    2   ARE YOU HISPANIC/LATINO ORIGIN/DESCENT?  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD
- A7\_1                 2   CATEGORY: AMER INDIAN/ALASKAN NATIVE  
                              01 = CHECKED  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE

-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

A7\_2                    2    CATEGORY: NATVE HAWAIIAN/PACIFIC ISLANDER  
                          02 = CHECKED  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

A7\_3                    2    CATEGORY: BLACK / AFRICAN AMERICAN  
                          03 = CHECKED  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

A7\_4                    2    CATEGORY: ASIAN  
                          04 = CHECKED  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

A7\_5                    2    CATEGORY: WHITE/CAUCASIAN  
                          05 = CHECKED  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

A7\_6                    2    CATEGORY: OTHER (CHECKED / NOT CHECKED)  
                          06 = CHECKED  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

A7\_GSP            A            40    CATEGORY: OTHER, PLEASE SPECIFY

B1ENLIS            2    ENLISTED: MARK CATEGORY BEST DESCRIBES  
01 = INFANTRY/GUN CREW/SEAMANSHIP SPECIALIST  
02 = ELECTRONIC EQUIPMENT REPAIRMAN  
03 = COMMUNICATIONS / INTELLIGENCE SPECIALIST  
04 = HEALTH CARE SPECIALIST  
05 = OTHER TECHNICAL OR ALLIED SPECIALIST  
06 = FUNCTIONAL SUPPORT AND ADMINISTRATION  
07 = ELECTRICAL/MECHANICAL EQUIP. REPAIRMAN  
08 = CRAFTSMAN  
09 = SERVICE AND SUPPLY HANDLER  
10 = NON-OCCUPATIONAL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

B1OFFCR            2    OFFICER: MARK CATEGORY BEST DESCRIBES  
01 = GENERAL OFFICER OR EXECUTIVE  
02 = TACTICAL OPERATIONS OFFICER  
03 = INTELLIGENCE OFFICER  
04 = ENGINEERING OR MAINTENANCE OFFICER  
05 = SCIENTIST OR PROFESSIONAL  
06 = HEALTH CARE OFFICER  
07 = ADMINISTRATOR  
08 = SUPPLY, PROCUREMENT, OR ALLIED OFFICER  
09 = NON-OCCUPATIONAL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

ESC\_002            A            1    ESCAPE CHARACTER - FORMAT PAGE 002

FMT\_003            3    FORMAT PAGE 003

B2                    2    MONTHS ASSG TO PRESENT PERM DUTY STATION  
01 = LESS THAN 1 MONTH  
02 = 1 - 3 MONTHS  
03 = 4 - 6 MONTHS  
04 = 7 - 12 MONTHS  
05 = 1 YEAR - 1 YEAR AND 11 MONTHS  
06 = 2 YEARS OR MORE  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE

-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

B3 2 PAST 30, HOW MANY 24-HR DAYS DEPLOYED  
RANGE = 00 - 30  
RANGE = -9 - -1

B4 2 PAST 12 MONTHS, WEEKS DEPLOYED IN FIELD  
RANGE = 00 - 52  
RANGE = -9 - -1

B5 2 EVER BEEN DEPLOYED/STATIONED OVERSEAS?  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

B6 2 LONGEST DEPLOYED/STATIONED OVERSEAS?  
01 = LESS THAN 1 MONTH  
02 = 1 - 3 MONTHS  
03 = 4 - 6 MONTHS  
04 = 7 - 12 MONTHS  
05 = 1 YEAR - 1 YEAR AND 11 MONTHS  
06 = 2 YEARS OR MORE  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

B7 2 HW MCH OF PRBLEM TAKE CARE CHILD OVRSEAS  
01 = NO OR LITTLE PROBLEM  
02 = A MODERATE PROBLEM  
03 = VERY MUCH OF A PROBLEM  
04 = HAD NO CHILDREN UNDER 18 AT THE TIME  
05 = TOOK CHILD/CHILDREN WITH ME  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

B8 2 WHEN ARRGMENTS CHILD CARE WHILE OVERSEAS  
01 = WITHIN THE PAST 5 YEARS  
02 = MORE THAN 5 YEARS AGO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

B9                    2    HELP, SUPRIOR OFFCERS GVE, CHILD CARE  
                          01 = A LOT  
                          02 = SOMEWHAT  
                          03 = VERY LITTLE  
                          04 = NONE  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

B10                    2    HAVE EVR BEEN DEPLOY/STATN IN WAR ZONE  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

ESC\_003            A    1    ESCAPE CHARACTER - FORMAT PAGE 003

FMT\_004            3    FORMAT PAGE 004

B11                    2    WERE YOU DEPL/RELOC TO SERVE IN LOCATN?  
                          01 = VIETNAM (MARCH 1962 - JANUARY 1973)  
                          02 = GRENADA (OCTOBER 1983 - NOVEMBER 1983)  
                          03 = PANAMA (DECEMBER 1989 - JANUARY 1990)  
                          04 = SOUTHWEST ASIA (AUG. 1990 - APRIL 1991)  
                          05 = SOMALIA (DECEMBER 1992 - MARCH 1994)  
                          06 = MACEDONIA (JULY 1993 - NOVEMBER 1997)  
                          07 = HAITI (SEPT. 1994 - NOVEMBER 1997)  
                          08 = BOSNIA (DECEMBER 1995 - PRESENT)  
                          09 = OTHER WAR ZONE OR HOSTILE ACTION ZONE  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

B119A            A    40    SPECIFY, OTHER WAR ZONE  
B119B            A    40    SPECIFY, OTHER WAR ZONE  
B119C            A    40    SPECIFY, OTHER WAR ZONE

B12                    2    EVR BEEN DEPL OTHER LOC, PHYSICAL DANGER  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

B13                    2    HOW WOULD YOU RATE YOUR CURR LEV MORALE?  
                               01 = VERY HIGH  
                               02 = HIGH  
                               03 = MODRATE  
                               04 = LOW  
                               05 = VERY LOW  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

B14                    2    HOW RATE CUR LEV OF MORALE IN YOUR UNIT?  
                               01 = VERY HIGH  
                               02 = HIGH  
                               03 = MODERATE  
                               04 = LOW  
                               05 = VERY LOW  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

B15                    2    HW RATE CUR LEV MORALE AMNG WOMEN IN UNT  
                               01 = VERY HIGH  
                               02 = HIGH  
                               03 = MODERATE  
                               04 = LOW  
                               05 = VERY LOW  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

ESC\_004            A            1    ESCAPE CHARACTER - FORMAT PAGE 004

FMT\_005            3            3    FORMAT PAGE 005

C1                    2    FREE FROM CONFLICTING DEMANDS ON MY JOB  
                               01 = VERY TRUE  
                               02 = SOMEWHAT TRUE  
                               03 = NOT VERY TRUE  
                               04 = NOT AT ALL TRUE  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

C2                    2    LOTS OF SAY OVR WHAT HAPPENS ON MY JOB  
                               01 = VERY TRUE  
                               02 = SOMEWHAT TRUE  
                               03 = NOT VERY TRUE  
                               04 = NOT AT ALL TRUE  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

C3                    2    JOB REQUIRES ME TO WORK AT A FAST PACE  
                               01 = VERY TRUE  
                               02 = SOMEWHAT TRUE  
                               03 = NOT VERY TRUE  
                               04 = NOT AT ALL TRUE  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

C4                    2    JOB REQUIRES ME TO WORK VERY HARD  
                               01 = VERY TRUE  
                               02 = SOMEWHAT TRUE  
                               03 = NOT VERY TRUE  
                               04 = NOT AT ALL TRUE  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

C5                    2    JOB ALLWS ME FREEDOM DECIDE DO OWN WORK  
                               01 = VERY TRUE  
                               02 = SOMEWHAT TRUE  
                               03 = NOT VERY TRUE  
                               04 = NOT AT ALL TRUE  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE

-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C6                    2    ON MY JOB I MAKE LOT OF DECSNS ON MY OWN  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C7                    2    ON JOB, GET TO TAKE PART IN DEC AFFECT ME  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C8                    2    I AM ASKED TO DO EXCESSIVE AMNTS OF WORK  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C9                    2    I HAVE ENOUGH TIME TO GET THE JOB DONE  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C10                   2    MY DUTY DAY IS OFTEN LONGER THAN 8.5 HRS  
                         01 = VERY TRUE

02 = SOMEWHAT TRUE  
03 = NOT VERY TRUE  
04 = NOT AT ALL TRUE  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C11                    2    I CHANGE SHIFTS RELATIVELY OFTEN  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C12                    2    OFTEN XTRA SHIFT FOR SOMEONE, IN ADDITION  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C13                    2    EQUIP I USE DSIGND MEN, DNGRUS FOR WOMEN  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C14                    2    EQUIP IS INADQUATE/WORKS POORLY/SHORTAGE  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C15                    2    FUMES/NOISE/ENVIRONMENT MAKE LOCN STRSFUL  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C16                    2    SOME ASPCTS MY JOB THAT ARE PHS DNGEROUS  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C17                    2    HOW WOULD SAY JOB MEASURES UP TO WANTED?  
                         01 = VERY MUCH LIKE THE JOB I WANTED  
                         02 = SOMEWHAT LIKE THE JOB I WANTED  
                         03 = NOT VRY MUCH LIKE JOB I WANTED  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C18                    2    HOW SATSFIED ARE YOU W/ YOUR WORK ASGN?  
                         01 = VERY SATISTIFED  
                         02 = SOMEWHAT SATISFIED  
                         03 = SOMEWHAT DISSATISFIED  
                         04 = VERY DISSATISFIED  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C19                    2    IS YOUR IMMEDIATE SUPERVISOR MALE/FEMAL?  
                         01 = MALE  
                         02 = FEMALE  
                         03 = MULTPLE SUPRVISORS/ MEN & WOMEN  
                         04 = I HAVE NO SUPERVISOR  
                         -9 = LEGITIMATE NONRESPONSE

- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

C20                    2    SUPERVISORS CONCERNED ABOUT THOSE UNDER  
                           01 = VERY TRUE  
                           02 = SOMEWHAT TRUE  
                           03 = NOT VERY TRUE  
                           04 = NOT AT ALL TRUE  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

C21                    2    SPRVISRS ENCRAGE SLDERS TO WORK AS TEAM  
                           01 = VERY TRUE  
                           02 = SOMEWHAT TRUE  
                           03 = NOT VERY TRUE  
                           04 = NOT AT ALL TRUE  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

C22                    2    JOB DECSNS APPLIED ACROSS ALL AFFECTED  
                           01 = VERY TRUE  
                           02 = SOMEWHAT TRUE  
                           03 = NOT VERY TRUE  
                           04 = NOT AT ALL TRUE  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

C23                    2    AT PLACE I WORK, TOO LITTLE SUPERVISION  
                           01 = VERY TRUE  
                           02 = SOMEWHAT TRUE  
                           03 = NOT VERY TRUE  
                           04 = NOT AT ALL TRUE  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE

-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C24                    2    SUPERVISORS ARE GOOD AT THEIR JOB  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C25                    2    SUPRVSORS MAKE NEG REMARK WOMENS PRFORM  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C26                    2    SUPRVSOR UNREASONABLE/UNREALISTIC DEMANDS  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C27                    2    SUPRVSOR GIVE MORE OPPRTUNITY TO MEN/WOM  
                         01 = MORE OPPORTUNITIES TO MEN  
                         02 = MORE OPPORTUNITIES TO WOMEN  
                         03 = TREATED THE SAME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C28                    2    SUPRVSOR GIVE MORE REWARDS TO MEN/WOMEN?

01 = TO MEN  
02 = TO WOMEN  
03 = TREATED THE SAME  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C29                    2    SUPRVSOR GIVE MORE CRITICISM TO MEN/WOMN  
                         01 = TO MEN  
                         02 = TO WOMEN  
                         03 = TREATED THE SAME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

C30                    2    HAVE FORMAL SUPERVISORY RESP OVER OTHERS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

C31                    2    HOW MNY PEOPLE DO YOU DIRCTLY SUPERVISE?  
                         01 = 1 PERSON  
                         02 = 2 PEOPLE  
                         03 = 3 - 4 PEOPLE  
                         04 = 5 - 9 PEOPLE  
                         05 = 10 - 25 PEOPLE  
                         06 = 26-99 PEOPLE  
                         07 = 100 OR MORE PEOPLE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

ESC\_005            A       1    ESCAPE CHARACTER - FORMAT PAGE 005

FMT\_006            3       3    FORMAT PAGE 006

C32A                2       2    ORDERS: RELATIVELY NEW SOLDIERS  
                         01 = VERY EASY  
                         02 = SOMEWHAT EASY  
                         03 = NEITHER EASY NOR DIFFICULT  
                         04 = SOMEWHAT DIFFICULT

05 = VERY DIFFICULT  
06 = DON'T SUPERVISE THESE PERSONNEL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C32B                    2    ORDERS: LONG-TERM SOLDIERS  
                          01 = VERY EASY  
                          02 = SOMEWHAT EASY  
                          03 = NEITHER EASY NOR DIFFICULT  
                          04 = SOMEWHAT DIFFICULT  
                          05 = VERY DIFFICULT  
                          06 = DON'T SUPERVISE THESE PERSONNEL  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

C32C                    2    ORDERS: FEMALE SOLDIERS  
                          01 = VERY EASY  
                          02 = SOMEWHAT EASY  
                          03 = NEITHER EASY NOR DIFFICULT  
                          04 = SOMEWHAT DIFFICULT  
                          05 = VERY DIFFICULT  
                          06 = DON'T SUPERVISE THESE PERSONNEL  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

C32D                    2    ORDERS: MALE SOLDIERS  
                          01 = VERY EASY  
                          02 = SOMEWHAT EASY  
                          03 = NEITHER EASY NOR DIFFICULT  
                          04 = SOMEWHAT DIFFICULT  
                          05 = VERY DIFFICULT  
                          06 = DON'T SUPERVISE THESE PERSONNEL  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

C32E                    2    ORDERS: CIVILIANS  
                          01 = VERY EASY  
                          02 = SOMEWHAT EASY  
                          03 = NEITHER EASY NOR DIFFICULT  
                          04 = SOMEWHAT DIFFICULT

05 = VERY DIFFICULT  
06 = DON'T SUPERVISE THESE PERSONNEL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C32F

2 ORDERS: DEPLOYED MALE SOLDIERS  
01 = VERY EASY  
02 = SOMEWHAT EASY  
03 = NEITHER EASY NOR DIFFICULT  
04 = SOMEWHAT DIFFICULT  
05 = VERY DIFFICULT  
06 = DON'T SUPERVISE THESE PERSONNEL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C32G

2 ORDERS: DEPLOYED FEMALE SOLDIERS  
01 = VERY EASY  
02 = SOMEWHAT EASY  
03 = NEITHER EASY NOR DIFFICULT  
04 = SOMEWHAT DIFFICULT  
05 = VERY DIFFICULT  
06 = DON'T SUPERVISE THESE PERSONNEL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C32H

2 ORDERS: OFFICERS  
01 = VERY EASY  
02 = SOMEWHAT EASY  
03 = NEITHER EASY NOR DIFFICULT  
04 = SOMEWHAT DIFFICULT  
05 = VERY DIFFICULT  
06 = DON'T SUPERVISE THESE PERSONNEL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C33

2 NOT COUNTG/GROUP OF PEOPLE AS COWORKERS  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE

-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C34                    2    ABOUT HOW MNY COWORKERS IN THIS GROUP?  
                         01 = 1 CO-WORKER  
                         02 = 2 CO-WORKERS  
                         03 = 3 - 4 CO-WORKERS  
                         04 = 5 - 9 CO-WORKERS  
                         05 = 10 - 25 CO-WORKERS  
                         06 = 26 - 99 CO-WORKERS  
                         07 = 100 OR MORE CO-WORKERS  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C35                    2    IN WRKGRP, ARE MOST PERSONNEL WOMEN/MEN?  
                         01 = MOST/ALL ARE WOMEN  
                         02 = MOST/ALL ARE MEN  
                         03 = ABOUT THE SAME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C36                    2    YOUR CO-WORKERS MOTIVATED TO DO GOOD JOB  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C37                    2    YOUR CO-WORKERS NOT DOING THEIR SHARE  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C38                    2    AT LEAST 1 CO-WRKR W/ WHOM SRIIOUS CONFLC

01 = VERY TRUE  
02 = SOMEWHAT TRUE  
03 = NOT VERY TRUE  
04 = NOT AT ALL TRUE  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C39                    2    AT LEAST SOME CO-WORKERS ARE FRIENDLY  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C40                    2    AT LEAST SOME CO-WORKERS WILLING ADVICE  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C41                    2    AT LEAST SOME TAKE PERSONAL INTER IN YOU  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C42                    2    CAN RELY ON SOME CO-WORKRS..THINGS TOUGH  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW

-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- C43                    2    SME CO-WRKR'S HELPFUL IN GETTING YOUR JOB  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C44                    2    FEEL APPRCIATD AT LEAST SOME CO-WORKERS  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C45                    2    AT LEAST WILLING PROVIDE PERSONAL PROBLM  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C46                    2    ANY YOUR CO-WORKERS CIVILIAN PERSONNEL?  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- C47                    2    CIVILIAN CO-WORKERS MOTIVATED GOOD JOB  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL

-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

C48                    2    CIVILIAN CO-WORKERS NOT DOING THEIR SHARE  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

C49                    2    AT LST 1 CIVILIAN CO-WORKER WHOM CONFLCT  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

C50                    2    AT LST SOME CIVILIAN CO-WORKERS FRIENDLY  
                         01 = VERY TRUE  
                         02 = SOMEWHAT TRUE  
                         03 = NOT VERY TRUE  
                         04 = NOT AT ALL TRUE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

C51                    2    HOW DOES AMT OF SUPPORT CMPAR: MAL/FEMAL  
                         01 = FEMLES GVE MORE ASSTANCE & SUPT  
                         02 = FEMLES GVE SOMEWHAT MORE ASSTNC  
                         03 = FEM & MAL GIV ABT SME AMT SUPPT  
                         04 = MALES GIVE SOMEWHAT MORE ASSIST  
                         05 = MALES GIVE MUCH MORE ASSIST/SUP  
                         06 = ONLY MALE IN POSN TO ASSIST  
                         07 = ONLY FEMALE IN A POSN TO ASSIST  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE

-1 = NO DATA IN RECORD

ESC\_006           A       1    ESCAPE CHARACTER - FORMAT PAGE 006

FMT\_007                    3    FORMAT PAGE 007

D1A                    2    12 MONTH, HAPPEN: YOU GOT ENGAGED  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1B                    2    12 MONTH, HAPPEN: YOU GOT MARRIED  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1C                    2    12 MONTH, HAPPEN: MOVED HOME/APARTMENT  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1D                    2    12 MONTH, HAPPEN: LOVER MOVED IN TOGTHOR  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1E                    2    12 MONTH, HAPPEN: HAD A BABY  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE

-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D1F                    2    12 MONTH, HAPPEN: ADOPT CHILD  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1G                    2    12 MONTH, HAPPEN: ELSE MOVED IN HSEHOLD  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1H                    2    12 MONTH, HAPPEN: LOVED ONE DIED  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1I                    2    12 MONTH, HAPPEN: FAMILY SERIOUSLY ILL  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1J                    2    12 MONTH, HAPPEN: DIVORCE/END RELATIONSH  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE

-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D1K                    2    12 MONTH, HAPPEN: SEPARATE FEW WEEKS  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1L                    2    12 MONTH, HAPPEN: SMOEONE MOVED OUT HOUSE  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1M                    2    12 MONTH, HAPPEN: FINANCIAL WORSE  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1N                    2    12 MONTH, HAPPEN: MAJOR JOB CHANGE  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D1O                    2    12 MONTH, HAPPEN: DIFFERENT INSTALLATION  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE

-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D1P                    2    12 MONTH, HAPPEN: HUSBAND/LVR HAD AFFAIR  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D1Q                    2    12 MONTH, HAPPEN: YOUR CHILD, TROUBLE  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D1R                    2    12 MONTH, HAPPEN: DEPLOYED OVERSEAS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D1S                    2    12 MONTH, HAPPEN: PROBLEM W/ FRIEND  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D1T                    2    12 MONTH, HAPPEN: SERIOUS LEGAL PROBLEMS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE

-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D1U                    2    12 MONTH, HAPPEN: VALUABLE WAS STOLEN  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D1V                    2    12 MONTH, HAPPEN: YOU WERE PROMOTED  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D1W                    2    12 MONTH, HAPPEN: STATIONED AWAY WIFE  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D2                    A    2    MOST STRESSFUL OF QUESTIONS D1A -- D1W  
                         01 = LETTER OF ITEM WAS MST STRSSFUL  
                         02 = NO EVENTS WERE STRESSFUL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D3                    2    PAST 12 MONTHS, RCVD PUBLIC ASSISTANCE  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL

- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

D4A                    2    MONEY TO COVER: FOOD  
                           01 = NO  
                           02 = SOMETIMES  
                           03 = YES  
                           04 = NO YOUNG CHILD  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D4B                    2    MONEY TO COVER: CLOTHING  
                           01 = NO  
                           02 = SOMETIMES  
                           03 = YES  
                           04 = NO YOUNG CHILD  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D4C                    2    MONEY TO COVER: HOUSING  
                           01 = NO  
                           02 = SOMETIMES  
                           03 = YES  
                           04 = NO YOUNG CHILD  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D4D                    2    MONEY TO COVER: TRANSPORTATION  
                           01 = NO  
                           02 = SOMETIMES  
                           03 = YES  
                           04 = NO YOUNG CHILD  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D4E                    2    MONEY TO COVER: FUN (MOVIE, ETC)  
                           01 = NO

02 = SOMETIMES  
03 = YES  
04 = NO YOUNG CHILD  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D4F                    2    MONEY TO COVER: CHILD CARE  
                         01 = NO  
                         02 = SOMETIMES  
                         03 = YES  
                         04 = NO YOUNG CHILD  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5A                    2    POOR HEALTH OF A FAMILY MEMBER  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5B                    2    NOT ENOUGH MONEY  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5C                    2    DEBTS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5D                    2    TOO MANY RESPONSIBILITIES

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5E                    2    PROBLEMS GETTING PREGNANT  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5F                    2    NON-FAMILY MEMBERS LIVING WITH YOU  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5G                    2    TROUBLE RELAXING  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5H                    2    BEING LONELY  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5I                    2    CONCERNS ABOUT YOUR OWN HEALTH

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5J                    2    SEXUAL PROBLEMS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5K                    2    PROBLEMS WITH CHILD CARE  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5L                    2    PROBLEMS WITH DIVORCE OR SEPARATION  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5M                    2    PROBLEMS IN RELATIONSHIP W/ LOVER/SPOUSE  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5N                    2    NOT HAVING ENOUGH FRIENDS

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5O 2 NOT BEING ABLE TO VISIT W/ PEOPLE ENOUGH

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5P 2 TOO MUCH TO DO AROUND THE HOUSE

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5Q 2 NOT ENOUGH TIME FOR FAMILY

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5R 2 PROBLEMS WITH CHILDRENS BEHAVIOR

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE

-1 = NO DATA IN RECORD

D5S                    2    FINANCING CHILDRENS EDUCATION  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5T                    2    NOT GETTING ENOUGH REST OR SLEEP  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5U                    2    PROBLEM WITH AGING PARENTS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5V                    2    DON'T LIKE WORK DUTIES  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5W                    2    UNCHALLENGING WORK  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE

-1 = NO DATA IN RECORD

ESC\_007           A           1    ESCAPE CHARACTER - FORMAT PAGE 007

FMT\_008                        3    FORMAT PAGE 008

D5X                            2    HASSLES FROM BOSS OR SUPERVISOR  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

D5Y                            2    PROBLEMS GETTING ALONG WITH CO-WORKERS  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

D5Z                            2    JOB TOO DEMANDING  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

D5AA                          2    PROBLEMS ON THE JOB DUE TO BEING A WOMAN  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

D5BB                          2    OTHER JOB DISSATISFACTIONS  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE

-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5CC                    2    WORRIES ABOUT ARMY RESERVES DOWNSIZING  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5DD                    2    LEGAL PROBLEMS  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5EE                    2    NOT ENOUGH ENERGY  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5FF                    2    MENSTRUAL PROBLEMS  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5GG                    2    SLEEP PROBLEMS  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE

-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5HH                    2    PREJUDICE OR DISCRIMINATION  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5II                    2    YOUR WEIGHT  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5JJ                    2    CRIME  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5KK                    2    HOME MAINTENANCE  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D5LL                    2    PROPERTY, INVESTMENT OR TAXES  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE

-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D5MM                    2    POOR QUALITY OR UNSAFE HOUSING  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5NN                    2    PRBLEMS W/ DEPRESSION, ANXIETY/MENTAL  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D500                    2    PHYSICAL DEMANDS OF TRAINING OR MILITARY  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5PP                    2    DAILY CMMUTE WHRE PERFRM ARMY RES DUTIES  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D5QQ                    2    ANY OTHER DAILY WORRY OR HASSLE  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE

-8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

D5QQSP        A        40    SPECIFY: ANY OTHER DAILY WORRY/HASSLE

D6A            A        2    MOST TROUBLESOME HASSLES IN LIFE #1  
    -9 = LEGITIMATE NONRESPONSE  
    -8 = BLANK OR NONRESPONSE  
    -7 = REFUSAL  
    -6 = MULTIPLE RESPONSE  
    -5 = BAD DATA (OUT OF RANGE)  
    -4 = DON'T KNOW  
    -3 = NOT APPLICABLE  
    -2 = ILLEGIBLE  
    -1 = NO DATA IN RECORD

D6B            A        2    MOST TROUBLESOME HASSLES IN LIFE #2  
    -9 = LEGITIMATE NONRESPONSE  
    -8 = BLANK OR NONRESPONSE  
    -7 = REFUSAL  
    -6 = MULTIPLE RESPONSE  
    -5 = BAD DATA (OUT OF RANGE)  
    -4 = DON'T KNOW  
    -3 = NOT APPLICABLE  
    -2 = ILLEGIBLE  
    -1 = NO DATA IN RECORD

D6C            A        2    MOST TROUBLESOME HASSLES IN LIFE #3  
    -9 = LEGITIMATE NONRESPONSE  
    -8 = BLANK OR NONRESPONSE  
    -7 = REFUSAL  
    -6 = MULTIPLE RESPONSE  
    -5 = BAD DATA (OUT OF RANGE)  
    -4 = DON'T KNOW  
    -3 = NOT APPLICABLE  
    -2 = ILLEGIBLE  
    -1 = NO DATA IN RECORD

D6NO                                    1    NO TROUBLESOME HASSLES IN MY LIFE  
    1 = CHECKED

D7                                    2    ALTOGETHER, HOW MUCH DO HASSLES BOTHER U  
    01 = A LITTLE  
    02 = A MODERATE AMOUNT  
    03 = A LOT  
    04 = AN EXTREME AMOUNT  
    -9 = LEGITIMATE NONRESPONSE  
    -8 = BLANK OR NONRESPONSE  
    -7 = REFUSAL  
    -6 = MULTIPLE RESPONSE  
    -5 = BAD DATA (OUT OF RANGE)  
    -4 = DON'T KNOW  
    -3 = NOT APPLICABLE  
    -2 = ILLEGIBLE  
    -1 = NO DATA IN RECORD

D8                                    2    BEEN PREGNANT AT ANY TIME IN PAST 5 YRS  
    01 = YES  
    02 = NO  
    -9 = LEGITIMATE NONRESPONSE

- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

- D9                            2    IN ACTIVE DUTY ARMY OR RESRVES AT TIME  
                                   01 = YES  
                                   02 = NO  
                                   -9 = LEGITIMATE NONRESPONSE  
                                   -8 = BLANK OR NONRESPONSE  
                                   -7 = REFUSAL  
                                   -6 = MULTIPLE RESPONSE  
                                   -5 = BAD DATA (OUT OF RANGE)  
                                   -4 = DON'T KNOW  
                                   -3 = NOT APPLICABLE  
                                   -2 = ILLEGIBLE  
                                   -1 = NO DATA IN RECORD
- ESC\_008                    A       1    ESCAPE CHARACTER - FORMAT PAGE 008
- FMT\_009                            3    FORMAT PAGE 009
- D10A                            2    CARRY OUT STRENUOUS DUTIS LATE IN PREGNC  
                                   01 = NO OR LITTLE PROBLEM  
                                   02 = MODERATE PROBLEM  
                                   03 = VERY MUCH OF A PROBLEM  
                                   04 = STILL PREGNANT  
                                   -9 = LEGITIMATE NONRESPONSE  
                                   -8 = BLANK OR NONRESPONSE  
                                   -7 = REFUSAL  
                                   -6 = MULTIPLE RESPONSE  
                                   -5 = BAD DATA (OUT OF RANGE)  
                                   -4 = DON'T KNOW  
                                   -3 = NOT APPLICABLE  
                                   -2 = ILLEGIBLE  
                                   -1 = NO DATA IN RECORD
- D10B                            2    NEG ATTITUDE TOWARD YOU, BECAUSE PREGNANT  
                                   01 = NO OR LITTLE PROBLEM  
                                   02 = MODERATE PROBLEM  
                                   03 = VERY MUCH OF A PROBLEM  
                                   04 = STILL PREGNANT  
                                   -9 = LEGITIMATE NONRESPONSE  
                                   -8 = BLANK OR NONRESPONSE  
                                   -7 = REFUSAL  
                                   -6 = MULTIPLE RESPONSE  
                                   -5 = BAD DATA (OUT OF RANGE)  
                                   -4 = DON'T KNOW  
                                   -3 = NOT APPLICABLE  
                                   -2 = ILLEGIBLE  
                                   -1 = NO DATA IN RECORD
- D10C                            2    AFTR GIVE BIRTH, RETRNG TO STRENUOUS DUT  
                                   01 = NO OR LITTLE PROBLEM  
                                   02 = MODERATE PROBLEM  
                                   03 = VERY MUCH OF A PROBLEM  
                                   04 = STILL PREGNANT  
                                   -9 = LEGITIMATE NONRESPONSE  
                                   -8 = BLANK OR NONRESPONSE  
                                   -7 = REFUSAL  
                                   -6 = MULTIPLE RESPONSE  
                                   -5 = BAD DATA (OUT OF RANGE)

-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- D10D                    2    TAKING TIME OFF TO CARE FOR SICK CHILD  
                          01 = NO OR LITTLE PROBLEM  
                          02 = MODERATE PROBLEM  
                          03 = VERY MUCH OF A PROBLEM  
                          04 = STILL PREGNANT  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- D10E                    2    FIND AFFORDBLE CHILD CARE DRNG DUTY HRS.  
                          01 = NO OR LITTLE PROBLEM  
                          02 = MODERATE PROBLEM  
                          03 = VERY MUCH OF A PROBLEM  
                          04 = STILL PREGNANT  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- D11A                    2    REPETDLY TOLD SEXUL JOKES WERE OFFENSIVE  
                          01 = VERY OFTEN  
                          02 = OFTEN  
                          03 = SOMETIMES  
                          04 = ONCE OR TWICE  
                          05 = NEVER  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- D11B                    2    WHISTLED/HOOTED AT YOU IN SEXUAL WAY  
                          01 = VERY OFTEN  
                          02 = OFTEN  
                          03 = SOMETIMES  
                          04 = ONCE OR TWICE  
                          05 = NEVER  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- D11C                    2    UNWELCOME ATTMPT DRAW TO DISCUS. OF SEX  
                          01 = VERY OFTEN

02 = OFTEN  
03 = SOMETIMES  
04 = ONCE OR TWICE  
05 = NEVER  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D11D                    2    CRUDE SEX REMARKS, EITHER PUB/PRIVATE  
                         01 = VERY OFTEN  
                         02 = OFTEN  
                         03 = SOMETIMES  
                         04 = ONCE OR TWICE  
                         05 = NEVER  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D11E                    2    TREATED YOU DIFF BECAUSE OF YOUR SEX  
                         01 = VERY OFTEN  
                         02 = OFTEN  
                         03 = SOMETIMES  
                         04 = ONCE OR TWICE  
                         05 = NEVER  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D11F                    2    OFFENS REMARKS ABOUT APPEAR/BODY/SEX AC  
                         01 = VERY OFTEN  
                         02 = OFTEN  
                         03 = SOMETIMES  
                         04 = ONCE OR TWICE  
                         05 = NEVER  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

D11G                    2    CONTINUED TO ASK DATES EVEN THO NOT INTR  
                         01 = VERY OFTEN  
                         02 = OFTEN  
                         03 = SOMETIMES  
                         04 = ONCE OR TWICE

05 = NEVER  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D11H                    2    TRYING TO BRIBE YOU W/ REWARD/TREATMENT  
                          01 = VERY OFTEN  
                          02 = OFTEN  
                          03 = SOMETIMES  
                          04 = ONCE OR TWICE  
                          05 = NEVER  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

ESC\_009            A        1    ESCAPE CHARACTER - FORMAT PAGE 009

FMT\_010            3    FORMAT PAGE 010

D11I                    2    FEEL THRETNND IF NOT COOPERATE SEXUALLY  
                          01 = VERY OFTEN  
                          02 = OFTEN  
                          03 = SOMETIMES  
                          04 = ONCE OR TWICE  
                          05 = NEVER  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D11J                    2    UNWANTED ATTMPTS TO STROKE/FONDLE/KISS  
                          01 = VERY OFTEN  
                          02 = OFTEN  
                          03 = SOMETIMES  
                          04 = ONCE OR TWICE  
                          05 = NEVER  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D11K 2 OTHER SEX-RELATED BEHAVIOR NOT LISTED  
01 = VERY OFTEN  
02 = OFTEN  
03 = SOMETIMES  
04 = ONCE OR TWICE  
05 = NEVER  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D11KSP A 40 OTHER SEX-RELATED BEHAVIOR NOT LISTED/SPECIFY

D12 2 CONSIDER ANY BEHAVIORS MARKED AS SEX HARASSMENT  
01 = NONE WERE SEXUAL HARASSMENT  
02 = SOME WERE; SOME WERE NOT SEX HAR  
03 = ALL WERE SEXUAL HARASSMENT  
04 = DOESN'T APPLY -I MARKED NEVER  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D13 2 DID THESE SITUATIONS OCCUR @ WORK OR SOME OTHER  
01 = ALL OF IT OCCURRED AT WORK  
02 = MOST OCCURRED AT WORK; SOME AT OTHER  
03 = SOME OCCUR AT WORK; MOST AT OTHER  
04 = NONE OF IT OCCURRED AT WORK  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D14\_1 2 WHERE ELSE DID THESE INCIDENTS OCCUR?  
01 = BARRACKS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D14\_2 2 WHERE ELSE DID THESE INCIDENTS OCCUR?  
02 = BACHELOR OFFICER QUARTERS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)

-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D14\_3                    2    WHERE ELSE DID THESE INCIDENTS OCCUR?  
                          03 = BACHELOR NCO QUARTERS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D14\_4                    2    WHERE ELSE DID THESE INCIDENTS OCCUR?  
                          04 = OTHER PLACES ON-POST  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D14\_5                    2    WHERE ELSE DID THESE INCIDENTS OCCUR?  
                          05 = OTHER PLACES OFF-POST  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D15                      2    DID THESE SIT. OCCR DUTY HRS. / OFF DUTY  
                          01 = ALL OCCURRED DURING DUTY HRS.  
                          02 = MOST OCCRRD DURING DUTY HRS  
                          03 = SOME OCCURRED DURING DUTY HRS  
                          04 = NONE OCCURRED DURING DUTY HRS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_01                   2    WHO WAS THAT PERSON(S)  
                          01 = YOUR IMMED. MILITARY SUPERVSR  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D16\_02                   2   WHO WAS THAT PERSON(S)  
                          02 = YOUR UNIT COMMANDER  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_03                   2   WHO WAS THAT PERSON(S)  
                          03 = OTHR MILITARY PERS OF HIGHR RANK  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_04                   2   WHO WAS THAT PERSON(S)  
                          04 = YOUR MILITARY CO-WORKER(S)  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_05                   2   WHO WAS THAT PERSON(S)  
                          05 = YOUR MILITARY SUBORDINATE(S)  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_06                   2   WHO WAS THAT PERSON(S)  
                          06 = YOUR MILITARY TRAIING INSTRUCTOR  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_07                   2   WHO WAS THAT PERSON(S)

07 = OTHER MILITARY PERSON(S)  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D16\_08                    2    WHO WAS THAT PERSON(S)  
                          08 = YOUR IMMEDIATE CIVILIAN SUPERVISOR  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_09                    2    WHO WAS THAT PERSON(S)  
                          09 = YOUR CIVILIAN CO-WORKER(S)  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_10                    2    WHO WAS THAT PERSON(S)  
                          10 = YOUR CIVILIAN SUBORDINATE(S)  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_11                    2    WHO WAS THAT PERSON(S)  
                          11 = YOUR CIVILIAN TRAINING INSTRUCTOR  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D16\_12                    2    WHO WAS THAT PERSON(S)  
                          12 = OTHER CIVILIAN PERSON(S)  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE

-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D16\_13                    2    WHO WAS THAT PERSON(S)  
                              13 = OTHER OR UNKNOWN PERSON(S)  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

D17                        2    ALTOGETHER, HOW UPSET, INCIDENTS TO YOU  
                              01 = VERY UPSETTING  
                              02 = SOMEWHAT UPSETTING  
                              03 = NOT VERY UPSETTING  
                              04 = NOT UPSETTING  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

ESC\_010                A    1    ESCAPE CHARACTER - FORMAT PAGE 010

FMT\_011                3    FORMAT PAGE 011

D18                       2    DID YOU REPRT THIS/ANY THESE INCIDENTS?  
                              01 = YES  
                              02 = NO  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE  
                              -1 = NO DATA IN RECORD

D19                       2    YOU RPRT INCIDNT THAT HAD GRETST NEG EFCT  
                              01 = YES  
                              02 = NO  
                              03 = ONLY 1 INCIDNT WHICH I REPORTED  
                              04 = ONLY 1 INCIDNT I DID NOT REPORT  
                              -9 = LEGITIMATE NONRESPONSE  
                              -8 = BLANK OR NONRESPONSE  
                              -7 = REFUSAL  
                              -6 = MULTIPLE RESPONSE  
                              -5 = BAD DATA (OUT OF RANGE)  
                              -4 = DON'T KNOW  
                              -3 = NOT APPLICABLE  
                              -2 = ILLEGIBLE

-1 = NO DATA IN RECORD

D20                    2    HOW STSFD W/ ACTNS TAKN AS RESULT OF REPT  
                           01 = VERY SATISFIED  
                           02 = SOMEWHAT SATISFIED  
                           03 = NOT VERY SATISFIED  
                           04 = VERY DISSATISFIED  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D21                    2    ANY NEGTV CONSEQ. BECAUSE YOU CPLAINED  
                           01 = YES  
                           02 = NO  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D22                    2    HOW SER WERE CONSEQ. FOR YOU COMPLAINING  
                           01 = NO NEGATIVE CONSEQUENCES  
                           02 = MINIMAL NEGATIVE CONSEQUENCES  
                           03 = MODERATE NEGATIVE CONSEQUENCES  
                           04 = SERIOUS NEGATIVE CONSEQUENCES  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D23                    2    PAST YR: GIVN UNPLSNT TSK JUST BEC WOMAN  
                           01 = NEVER HAPPENED IN PAST YEAR  
                           02 = RARELY HAPPENED IN PAST YEAR  
                           03 = SOMETIMES HAPPENED IN PAST YEAR  
                           04 = OFTEN HAPPENED IN PAST YEAR  
                           05 = VERY OFTEN HAPPENED PAST YEAR  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

D24                    2    EVER BEEN DISCRIMINATED AGAINST IN ARMY  
                           01 = YES  
                           02 = NO  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL

- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

D25                    2    HOW SERISLY IMPCT DISCRMNATN BEEN ON YOU  
 01 = NOT AT ALL SERIOUS  
 02 = SOMEWHAT SERIOUS  
 03 = VERY SERIOUS  
 04 = EXTREMELY SERIOUS  
 -9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

D26                    2    BLVE MINORITY MEMBER HINDERD/HURT CAREER  
 01 = YES  
 02 = NO  
 -9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

D27                    2    BEING MINRITY MEMBR HINDRD ARMY CAREER  
 01 = A LITTLE BIT  
 02 = SOMEWHAT  
 03 = VERY MUCH  
 -9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

D28                    2    BEL. BEING A MINORITY MEMBR HELPD CAREER  
 01 = YES  
 02 = NO  
 -9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

NOT APPLICABLE

-3 =

D29                    2    HOW MUCH THINK BEING MINRITY MEM HELPD  
 01 = A LITTLE BIT  
 02 = SOMEWHAT  
 03 = VERY MUCH  
 -9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE

- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

D30                    2    AS MNRTY MEM, ADVANCE CMPRES W/ CIVILIAN  
                          01 = BETTER ABLE TO ADVANCE IN ARMY RESERVES  
                          02 = ABOUT THE SAME  
                          03 = BETTER ABLE TO ADVANCE IN CIVILIAN LIFE  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D31                    2    MAN/BOY FORCE SEX BY USING FORCE/THREAT  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D32                    2    FORCE ORAL SEX BY FORCE/THREAT OF HARM  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D33                    2    EVR FORCE ANAL SEX BY FORCE/THREAT/HARM  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D34                    2    ANYONE EVR PUT FINGERS VAGINA AGNST WILL  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE

-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D35 2 ANY OF THESE THINGS HAPPEN IN 12 MONTHS

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D36 2 HOW ABOUT SINCE YOU ENTERED ARMY RESERVS

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D37 2 ANY THNGS HAPN TO YOU BEFORE AGE 16

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D38 2 ANY SITATN WHERE FORCED SEX UNSUCCESSFUL

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D39 2 ANYTHING LIKE THIS HAPPEN IN PAST 12 MOS

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE

-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D40                    2    HOW ABOUT SINCE ENTERED ARMY RESERVES?  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

ESC\_011            A    1    ESCAPE CHARACTER - FORMAT PAGE 011

FMT\_012            3    FORMAT PAGE 012

D41                    2    ANYTHING LIKE THIS HAPPEN BEFORE YOU 16?  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D42                    2    ANYONE EVER FORCED SEX CONTACT W/ YOU?  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D43                    2    ANYTHING LIKE THIS HAPPEN IN PAST 12 MOS  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D44                    2    SINCE YOU ENTERED THE ARMY RESERVES?  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D45                    2    ANYTHING LIKE THIS HAPN BEFORE WERE 16  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D46                    2    NOT COUNTING CHKD ABVE/ANYONE EVR ATTACK  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D47                    2    NT COUNT ANY SEX/PHY ATAK, W/O WEAPON  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D48                    2    NT COUNT ANY SEX/PHY ATAK, HURT/INJURE  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D49                    2    ANY SERIOUS PHY ASS/THREAT IN PAST 12 MO  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D50                    2    ANY INCIDENT HAPPEN SINCE IN ARMY RESERV  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D51                    2    ANY SUCH INCIDENT HAPPEN BEFORE YOU 16  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D52                    2    HUSBAND/X-HUSBND HIT/HURT ON REPTD OCCSN  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D53                    2    ANYTHING LIKE THIS HAPPN PAST 12 MONTHS  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

D54\_1                 2    EVR BEEN IN SITUATN WHERE AFRAID KILLED  
                               01 = YES  
                               02 = NO

-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D54\_2A                    2    EVR BEEN IN SITUATN WHERE AFRAID KILLED  
01 = PAST 12 MONTHS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D54\_2B                    2    EVR BEEN IN SITUATN WHERE AFRAID KILLED  
02 = MORE THAN 12 MONTHS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D55\_1                    2    EVR IN SERIOUS ACCIDENT AT WORK/CAR/ELSE  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D55\_2A                    2    EVR IN SERIOUS ACCIDENT AT WORK/CAR/ELSE  
01 = PAST 12 MONTHS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D55\_2B                    2    EVR IN SERIOUS ACCIDENT AT WORK/CAR/ELSE  
02 = MORE THAN 12 MONTHS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW

-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D56\_1                    2    NATURAL DISASTER-TORNADO/HURR/EARTHQUAKE  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D56\_2A                   2    NATURAL DISASTER-TORNADO/HURR/EARTHQUAKE  
                          01 = PAST 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D56\_2B                   2    NATURAL DISASTER-TORNADO/HURR/EARTHQUAKE  
                          02 = MORE THAN 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D57\_1                    2    ANY OTHER SITUATN AFRAID KILLED/INJURED  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D57\_2A                   2    ANY OTHER SITUATN AFRAID KILLED/INJURED  
                          01 = PAST 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D57\_2B                    2    ANY OTHER SITUATN AFRAID KILLED/INJURED  
                          02 = MORE THAN 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D58\_1                    2    SITUATION WHERE CARE FOR DEAD/WOUNDED  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D58\_2A                   2    SITUATION WHERE CARE FOR DEAD/WOUNDED  
                          01 = PAST 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D58\_2B                   2    SITUATION WHERE CARE FOR DEAD/WOUNDED  
                          02 = MORE THAN 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D59\_1                    2    LOVED ONE KILLED CRIME/ACCIDENT/DISASTER  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D59\_2A                   2    LOVED ONE KILLED CRIME/ACCIDENT/DISASTER

01 = PAST 12 MONTHS  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

D59\_2B                    2    LOVED ONE KILLED CRIME/ACCIDENT/DISASTER  
                          02 = MORE THAN 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D60\_1                    2    SEE SMOONE SERISLY INJRD/VIOLENTLY KILLD  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D60\_2A                   2    SEE SMOONE SERISLY INJRD/VIOLENTLY KILLD  
                          01 = PAST 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

D60\_2B                   2    SEE SMOONE SERISLY INJRD/VIOLENTLY KILLD  
                          02 = MORE THAN 12 MONTHS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

E1                        2    WHAT IS CURRENT MARITAL STATUS?  
                          01 = MARRIED OR LIVING AS MARRIED

02 = SEPARATED AND NOT LIVING AS MARRIED  
03 = DIVORCED AND NOT LIVING AS MARR  
04 = WIDOWED AND NOT LIVING AS MAR  
05 = SINGLE, NEVR MARRIED/NOT LIV AS MARRIED  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- E2                    2    SPOUSE/PARTNER CURR IN ACTIVE DUTY ARMY  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- E3                    2    HOW LNG BEEN MARRIED/LIVING AS MARRIED  
                         RANGE = 0 - 50  
                         RANGE = -9 - -1
- E4                    2    WOULD YOU SAY RELTNSHIP W/ YOUR SPOUSE  
                         01 = VERY GOOD  
                         02 = PRETTY GOOD  
                         03 = MIXED/UP AND DOWN  
                         04 = NOT VERY GOOD  
                         05 = PRETTY BAD  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- E5                    2    BEING IN ARMY HELPS/HURTS ON RELATIONSHIP  
                         01 = HELPS A LOT  
                         02 = HELPS SOMEWHAT  
                         03 = HAS NO EFFECT  
                         04 = HURTS SOMEWHAT  
                         05 = HURTS A LOT  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- E6                    2    DO YOU HAVE ANY CHILDREN UNDER AGE 18?  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL

-6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

E7                    2    HOW MANY OF YOUR CHILDREN UNDER AGE 12?  
                               RANGE = 00 - 50  
                               RANGE = -9 - -1

E8                    2    HOW MNY YOUR CHILDREN BTW AGE 12 AND 17  
                               RANGE = 00 - 50  
                               RANGE = -9 - -1

E9                    2    HOW MNY CHILDREN UNDR 18 AND LVNG W/ YOU  
                               RANGE = 00 - 50  
                               RANGE = -9 - -1

E10                   2    DO CHILD UNDR 18 GIVE SERIOUS PROBLEMS  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

ESC\_012            A    1    ESCAPE CHARACTER - FORMAT PAGE 012

FMT\_013            3    FORMAT PAGE 013

E11                   2    CHD UNDR 18 WHO LIVES W/ YOU HLPs STRESS  
                               01 = AT LST 1 CHILD RN UDR 18 RELVE MY STRESS  
                               02 = NONE CHILDREN UDR 18 HELPS RELVE STRESS  
                               03 = NO CHILD UNDR AGE 18 LIVES WITH ME  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

E12                   2    END OF QUES/ANYTHING ELSE/ARMY STRESSFUL  
                               01 = YES  
                               02 = NO  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

E13                   A    100 BRIEFLY, WHAT IS THAT?

F1                    2    SATSFIED W/ HOW OFTEN YOU SEE FRIENDS  
                               01 = VERY DISSATISFIED

02 = SOMEWHAT DISSATISFIED  
 03 = SATISFIED  
 -9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

F2                    2    SATSFIED W/KINDS RELATIONSHIPS W/ FAMILY  
                       01 = VERY DISSATISFIED  
                       02 = SOMEWHAT DISSATISFIED  
                       03 = SATISFIED  
                       -9 = LEGITIMATE NONRESPONSE  
                       -8 = BLANK OR NONRESPONSE  
                       -7 = REFUSAL  
                       -6 = MULTIPLE RESPONSE  
                       -5 = BAD DATA (OUT OF RANGE)  
                       -4 = DON'T KNOW  
                       -3 = NOT APPLICABLE  
                       -2 = ILLEGIBLE  
                       -1 = NO DATA IN RECORD

F3                    2    WISH THAT FAMILY/FRIENDS GIVE MORE HELP  
                       01 = YES  
                       02 = NO  
                       -9 = LEGITIMATE NONRESPONSE  
                       -8 = BLANK OR NONRESPONSE  
                       -7 = REFUSAL  
                       -6 = MULTIPLE RESPONSE  
                       -5 = BAD DATA (OUT OF RANGE)  
                       -4 = DON'T KNOW  
                       -3 = NOT APPLICABLE  
                       -2 = ILLEGIBLE  
                       -1 = NO DATA IN RECORD

ESC\_013            A    1    ESCAPE CHARACTER - FORMAT PAGE 013

FMT\_014            3    3    FORMAT PAGE 014

F4                    2    TIMES OF TROUBLE,COUNT ON FAMILY/FRIENDS  
                       01 = HARDLY EVER  
                       02 = SOME OF THE TIME  
                       03 = MOST OF THE TIME  
                       -9 = LEGITIMATE NONRESPONSE  
                       -8 = BLANK OR NONRESPONSE  
                       -7 = REFUSAL  
                       -6 = MULTIPLE RESPONSE  
                       -5 = BAD DATA (OUT OF RANGE)  
                       -4 = DON'T KNOW  
                       -3 = NOT APPLICABLE  
                       -2 = ILLEGIBLE  
                       -1 = NO DATA IN RECORD

F5                    2    WHEN W/ FAM/FRNDS, HOW OFTEN FEEL LONELY  
                       01 = HARDLY EVER  
                       02 = SOME OF THE TIME  
                       03 = MOST OF THE TIME  
                       -9 = LEGITIMATE NONRESPONSE  
                       -8 = BLANK OR NONRESPONSE  
                       -7 = REFUSAL  
                       -6 = MULTIPLE RESPONSE  
                       -5 = BAD DATA (OUT OF RANGE)  
                       -4 = DON'T KNOW

-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- F6                    2    SEEM YOUR FAMILY/FRNDS UNDERSTAND YOU  
                         01 = HARDLY EVER  
                         02 = SOME OF THE TIME  
                         03 = MOST OF THE TIME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- F7                    2    DO YOU FEEL USEFUL TO YOUR FAMILY/FRNDS  
                         01 = HARDLY EVER  
                         02 = SOME OF THE TIME  
                         03 = MOST OF THE TIME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- F8                    2    YOU KNOW WHAT IS GOING ON W/ FAM/FRNDS  
                         01 = HARDLY EVER  
                         02 = SOME OF THE TIME  
                         03 = MOST OF THE TIME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- F9                    2    WHEN TLKG W/ FAMILY/FRNDS: LISTENED TO?  
                         01 = HARDLY EVER  
                         02 = SOME OF THE TIME  
                         03 = MOST OF THE TIME  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD
- F10                   2    FEEL YOU HAVE DEFNITE ROLE IN FAM/FRNDS  
                         01 = HARDLY EVER  
                         02 = SOME OF THE TIME  
                         03 = MOST OF THE TIME  
                         -9 = LEGITIMATE NONRESPONSE

- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

F11                    2    TALK ABOUT DEEPEST PROBLMS W/ FAM/FRNDS  
                           01 = HARDLY EVER  
                           02 = SOME OF THE TIME  
                           03 = MOST OF THE TIME  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

F12                    2    ANY HOBBIES/SPORTS HELP REDUCE STRESS  
                           01 = YES  
                           02 = NO  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

F13                    2    HOW MNY HRS: ACTVTIES GRTLY RDUCE STRESS  
                           01 = 0 - 3 HOURS  
                           02 = 4 - 6 HOURS  
                           03 = 7 - 10 HOURS  
                           04 = 11 - 13 HOURS  
                           05 = 14 OR MORE HOURS  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

G1                     2    IN GENERAL, WOULD YOU SAY YOUR HEALTH IS  
                           01 = EXCELLENT  
                           02 = VERY GOOD  
                           03 = GOOD  
                           04 = FAIR  
                           05 = POOR  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE

-1 = NO DATA IN RECORD

G2A                    2    GET ENOUGH SLP FEEL RESTED UPON WAKING  
01 = ALL OF THE TIME  
02 = MOST OF THE TIME  
03 = A GOOD BIT OF THE TIME  
04 = SOME OF THE TIME  
05 = A LITTLE OF THE TIME  
06 = NONE OF THE TIME  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G2B                    2    AWAKEN SHORT OF BREATH OR W/ HEADACHE  
01 = ALL OF THE TIME  
02 = MOST OF THE TIME  
03 = A GOOD BIT OF THE TIME  
04 = SOME OF THE TIME  
05 = A LITTLE OF THE TIME  
06 = NONE OF THE TIME  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G2C                    2    HAVE TROUBLE FALLING ASLEEP  
01 = ALL OF THE TIME  
02 = MOST OF THE TIME  
03 = A GOOD BIT OF THE TIME  
04 = SOME OF THE TIME  
05 = A LITTLE OF THE TIME  
06 = NONE OF THE TIME  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G2D                    2    AWAKEN DURING SLEEP & TROUBLE FAL ASLP  
01 = ALL OF THE TIME  
02 = MOST OF THE TIME  
03 = A GOOD BIT OF THE TIME  
04 = SOME OF THE TIME  
05 = A LITTLE OF THE TIME  
06 = NONE OF THE TIME  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G2E                    2    HAVE TROUBLE STAYING AWAKE DURING DAY  
                          01 = ALL OF THE TIME  
                          02 = MOST OF THE TIME  
                          03 = A GOOD BIT OF THE TIME  
                          04 = SOME OF THE TIME  
                          05 = A LITTLE OF THE TIME  
                          06 = NONE OF THE TIME  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

G2F                    2    GET THE AMOUNT OF SLEEP YOU NEEDED?  
                          01 = ALL OF THE TIME  
                          02 = MOST OF THE TIME  
                          03 = A GOOD BIT OF THE TIME  
                          04 = SOME OF THE TIME  
                          05 = A LITTLE OF THE TIME  
                          06 = NONE OF THE TIME  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

G3                     2    EVER HAD HIGH BLOOD PRESSURE?  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

G4                     2    HAD HIGH BLOOD PRESSURE IN PAST YEAR?  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

G5                     2    TROUBLED BY STAY IN WT. STNDARD FOR HGHT  
                          01 = VERY TROUBLED  
                          02 = SOMEWHAT TROUBLED  
                          03 = NOT TROUBLED AT ALL

- 9 = LEGITIMATE NONRESPONSE
- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

G6                            2    BEEN FEELING PERFECTLY WELL/GOOD HEALTH

- 01 = BETTER THAN USUAL
- 02 = SAME AS USUAL
- 03 = WORSE THAN USUAL
- 04 = MUCH WORSE THAN USUAL
- 9 = LEGITIMATE NONRESPONSE
- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

G7                            2    FEELING NEED SOME MEDCINE TO PICK YOU UP

- 01 = NOT AT ALL
- 02 = NO MORE THAN USUAL
- 03 = SOMEWHAT MORE THAN USUAL
- 04 = MUCH MORE THAN USUAL
- 9 = LEGITIMATE NONRESPONSE
- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

G8                            2    FEELING RUN DOWN AND OUT OF SORTS?

- 01 = NOT AT ALL
- 02 = NO MORE THAN USUAL
- 03 = SOMEWHAT MORE THAN USUAL
- 04 = MUCH MORE THAN USUAL
- 9 = LEGITIMATE NONRESPONSE
- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE
- 2 = ILLEGIBLE
- 1 = NO DATA IN RECORD

G9                            2    FELT THAT YOU ARE ILL?

- 01 = NOT AT ALL
- 02 = NO MORE THAN USUAL
- 03 = SOMEWHAT MORE THAN USUAL
- 04 = MUCH MORE THAN USUAL
- 9 = LEGITIMATE NONRESPONSE
- 8 = BLANK OR NONRESPONSE
- 7 = REFUSAL
- 6 = MULTIPLE RESPONSE
- 5 = BAD DATA (OUT OF RANGE)
- 4 = DON'T KNOW
- 3 = NOT APPLICABLE

-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G10                    2    BEEN GETTING ANY PAINS IN YOUR HEAD?  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G11                    2    FEELING OF TIGHTNESS/PRESSURE IN HEAD  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G12                    2    BEEN HAVING HOT OR COLD SPELLS?  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G13                    2    LOST MUCH SLEEP OVER WORRY?  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G14                    2    HAD DIFFICULTY IN STAYING ASLEEP?  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL

-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G15                    2    FELT CONSTANTLY UNDER STRAIN (STRESS)  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G16                    2    BEEN GETTING EDGY AND BAD-TEMPERED?  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G17                    2    GTTING SCARED/PANICKY FOR NO GOOD REASON  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G18                    2    FOUND EVERYTHING TO BE TOO MUCH FOR YOU  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G19                    2    FEELING NERVOUS AND UPTIGHT ALL TIME  
                               01 = NOT AT ALL  
                               02 = NO MORE THAN USUAL  
                               03 = SOMEWHAT MORE THAN USUAL  
                               04 = MUCH MORE THAN USUAL  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

ESC\_014            A    1    ESCAPE CHARACTER - FORMAT PAGE 014

FMT\_015            3    FORMAT PAGE 015

G20                    2    RCENTLY BEEN MNAGING TO KEEP YRSELF BUSY  
                               01 = MORE SO THAN USUAL  
                               02 = SAME AS USUAL  
                               03 = SOMEWHAT LESS THAN USUAL  
                               04 = MUCH LESS THAN USUAL  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

G21                    2    RCENTLY BEEN TAKING LONGER TO DO THINGS  
                               01 = QUICKER THAN USUAL  
                               02 = SAME AS USUAL  
                               03 = LONGER THAN USUAL  
                               04 = MUCH LONGER THAN USUAL  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

G22                    2    RECNTLY FELT YOU WERE DOING THINGS WELL  
                               01 = BETTER THAN USUAL  
                               02 = ABOUT THE SAME  
                               03 = LESS WELL THAN USUAL  
                               04 = MUCH LESS WELL  
                               -9 = LEGITIMATE NONRESPONSE  
                               -8 = BLANK OR NONRESPONSE  
                               -7 = REFUSAL  
                               -6 = MULTIPLE RESPONSE  
                               -5 = BAD DATA (OUT OF RANGE)  
                               -4 = DON'T KNOW  
                               -3 = NOT APPLICABLE  
                               -2 = ILLEGIBLE  
                               -1 = NO DATA IN RECORD

G23                    2    BEEN SATISFIED W/ WAY YOU CARRIED TASKS  
                               01 = MORE THAN USUAL  
                               02 = ABOUT SAME AS USUAL

03 = LESS THAN USUAL  
04 = MUCH LESS THAN USUAL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G24                    2    FELT THAT YOU ARE PLAING A USEFUL PART  
                         01 = MORE THAN USUAL  
                         02 = ABOUT SAME AS USUAL  
                         03 = LESS THAN USUAL  
                         04 = MUCH LESS THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G25                    2    FELT CAPABLE MAKG DECISNS ABOUT THINGS  
                         01 = MORE THAN USUAL  
                         02 = ABOUT SAME AS USUAL  
                         03 = LESS THAN USUAL  
                         04 = MUCH LESS THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G26                    2    BEEN ABLE ENJOY NORMAL DAY-TO-DAY ACTIV  
                         01 = MORE THAN USUAL  
                         02 = ABOUT SAME AS USUAL  
                         03 = LESS THAN USUAL  
                         04 = MUCH LESS THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G27                    2    BEEN ABLE ENJOY NORMAL DAY-TO-DAY ACTIV  
                         01 = NOT AT ALL  
                         02 = NO MORE THAN USUAL  
                         03 = SOMEWHAT MORE THAN USUAL  
                         04 = MUCH MORE THAN USUAL  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL

-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- G28                    2    FELT THAT LIFE IS ENTIRELY HOPELESS  
                          01 = NOT AT ALL  
                          02 = NO MORE THAN USUAL  
                          03 = SOMEWHAT MORE THAN USUAL  
                          04 = MUCH MORE THAN USUAL  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- G29                    2    FELT THAT LIFE ISNT WORTH LIVING?  
                          01 = NOT AT ALL  
                          02 = NO MORE THAN USUAL  
                          03 = SOMEWHAT MORE THAN USUAL  
                          04 = MUCH MORE THAN USUAL  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- G30                    2    RECNTLY THOUGHT MIGHT TAKE OWN LIFE  
                          01 = DEFINITELY NOT  
                          02 = I DON'T THINK SO  
                          03 = HAS CROSSED MY MIND  
                          04 = DEFINITELY HAVE  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- G31                    2    COULDNT DO ANYTHING BEC NERVES TOO BAD  
                          01 = NOT AT ALL  
                          02 = NO MORE THAN USUAL  
                          03 = SOMEWHAT MORE THAN USUAL  
                          04 = MUCH MORE THAN USUAL  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD
- G32                    2    WISHING YOU WERE DEAD & AWAY FROM IT ALL

01 = NOT AT ALL  
02 = NO MORE THAN USUAL  
03 = SOMEWHAT MORE THAN USUAL  
04 = MUCH MORE THAN USUAL  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

G33                    2    IDEA TAKING YOUR LIFE KEPT COMNG TO MIND  
                         01 = DEFINITELY NOT  
                         02 = I DON'T THINK SO  
                         03 = HAS CROSSED MY MIND  
                         04 = DEFINITELY HAVE  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

G34                    2    ACTIVE HEALTH PROBS CAUSE INTERFERE LVNG  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

H1                     2    ALTGTHR, LIFETIME, HAD MORE THAN 5 DRINKS  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

H2                     2    DO YOU FEEL YOU ARE A NORMAL DRINKER?  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

H3                     2    DO FRIENDS THINK YOU ARE NORMAL DRINKR?

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H4                    2    EVR ATTEND MEETING ALCOHOLICS ANONYMOUS?  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H5                    2    EVR LOST FRIENDS/BOY-GIRLFRND BEC DRNKNG  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H6                    2    EVR GOTTEN INTO TROUBL AT WRK BEC DRINKG  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H7                    2    EVR NGLCTD FAMILY/WORK >2 DAYS BEC DRNKG  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H8                    2    EVR NGLCTD FAMILY/WORK >2 DAYS BEC DRNKG

01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H9                    2    EVR GONE TO ANYONE FOR HELP W/ DRINKING  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

H10                   2    HAVE EVR BEEN IN HOSPITAL BEC DRINKING  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

H11                   2    EVR ARRESTED DRUNK DRVG/DRV AFTER DRINKG  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

H12                   2    DID YOU MARK AN X IN SHADED BOXES H4-H11  
                         01 = YES  
                         02 = NO  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

ESC\_015            A            1    ESCAPE CHARACTER - FORMAT PAGE 015

- H13 2 PAST 12 MOS., HAD ANY PROBS/EXPER DRNKNG  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H14 2 PAST 30 DAYS, HAD THSE KNDS PRBLMS DRNKNG  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H15 2 EVER USED ILLGL DRUGS MORE THAN 5 TIMES?  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H16 2 IN LIFE, USED PRESCRIP DRUGS W/O A PRESCR  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H17 2 PAST 12 MOS-USED ANY ILLGL DRUGS/PRESC  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H18 2 USED ANY OF THESE IN PAST 30 DAYS  
01 = YES

02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- H19                    2    HOW OFTEN USED THEM IN PAST 30 DAYS  
01 = EVERY DAY OR ALMOST EVERY DAY  
02 = MORE THAN ONCE A WEEK  
03 = ABOUT ONCE A WEEK  
04 = A COUPLE OF TIMES A MONTH  
05 = ABOUT ONCE A MONTH  
06 = LESS THAN ONCE A MONTH  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H20                    2    EVER PROBLMS FROM USNG ILLEGAL DRUGS  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H21                    2    PST 12 MO, HAD ANY PRBS FRM USG DRUGS  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H22                    2    HW ABOUT IN PAST 30 DAYS, HAD SUCH PROBS  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD
- H23                    2    BEG.YSTRDAY-BACK 12 MOS, INJURIES FR WORK  
01 = YES

02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H24 2 WOULD YOU SAY THIS INJURY MILD/MOD/SEVER  
01 = MILD  
02 = MODERATE  
03 = SEVERE

LEGITIMATE NONRESPONSE

-9 =

-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H25 2 DID YOU TALK W/ DOCTOR/NURSE ABOUT INJRY  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H26 2 DID RCV ANY OTHR INJURIES PAST 12 MOS.  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H27 2 WOULD YOU SAY THIS INJURY = MILD/SEVERE  
01 = MILD  
02 = MODERATE  
03 = SEVERE  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H28 2 DID YOU TALK W/ DOCTOR/NURSE ABOUT INJRY  
01 = MILD  
02 = MODERATE  
03 = SEVERE

-9 = LEGITIMATE NONRESPONSE  
 -8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

H29                    2    PST 12 MO, TLKD W/ DOCTOR ABOUT PREGNANT  
                           01 = YES  
                           02 = NO  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

H30                    2    PST 12 MO, TLKD W/ DOCTOR ABOUT PREGNANT  
                           01 = YES  
                           02 = NO  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

H31                    3    PST 12 MO, TLKD W/ DOC ABOUT HEALTH/ILLN  
                           RANGE = 001 - 365  
                           RANGE = -9 - -1

H32                    2    PAST 30 DAYS: DAYS WERE UNABLE TO WORK  
                           01 = YES  
                           02 = NO  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

H33                    2    PAST 30 DAYS: TOTALLY UNABLE TO WORK  
                           RANGE = 0 - 30  
                           RANGE = -9 - -1

ESC\_016            A    1    ESCAPE CHARACTER - FORMAT PAGE 016

FMT\_017            3    FORMAT PAGE 017

H34                    2    # DYS IN QS H33: TOTALLY UNABLE/ALCOHOL  
                           RANGE = 0 - 30  
                           RANGE = -9 - -1

H35 2 # DYS IN QS H33: TOTALLY UNABLE/INJURY  
RANGE = 0 - 30  
RANGE = -9 - -1

H36 2 # DYS IN QS H33: TOTALLY UNABLE/ILLNESS  
RANGE = 0 - 30  
RANGE = -9 - -1

H37 2 DAYS YOU HAD TO CUT DOWN ON WHAT YOU DID  
01 = YES  
02 = NO  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

H38 2 DAYS YOU HAD TO CUT DOWN ON WHAT YOU DID  
RANGE = 0 - 30  
RANGE = -9 - -1

H39 2 IN QUES H38: CUT DOWN BECAUSE EMOTIONS  
RANGE = 0 - 30  
RANGE = -9 - -1

H40 2 IN QUES H38: CUT DOWN BECAUSE INJURY  
RANGE = 0 - 30  
RANGE = -9 - -1

H41 2 IN QUES H38: CUT DOWN BECAUSE ILLNESS  
RANGE = 0 - 30  
RANGE = -9 - -1

H42 2 ON DAYS YOU CUT DOWN, RATE WHAT DONE  
RANGE = 0 - 10  
RANGE = -9 - -1

I1 2 IF GOOD FRIEND INTERESTED IN JOINING  
01 = ADVISE HER AGAINST IT  
02 = HAVE DOUBTS ABOUT RECOMMENDING IT  
03 = STRONGLY RECOMMEND IT  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I2 2 KNOW NOW, IF HAD TO DECIDE, JOIN ARMY  
01 = DECIDE DEFINITELY NOT TO JOIN  
02 = HAVE SOME SECOND THOUGHTS  
03 = DECIDE WITHOUT HESITATION TO JOIN  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

- I3                    2    LIKELY YOU VOLUNTARILY LEAVE ARMY IN YR  
                           01 = VERY LIKELY  
                           02 = SOMEWHAT LIKELY  
                           03 = NOT VERY LIKELY  
                           04 = NOT AT ALL LIKELY  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD
- I4                    2    LIKELY FORCED TO LEAVE BECAUSE CUTBACKS  
                           01 = VERY LIKELY  
                           02 = SOMEWHAT LIKELY  
                           03 = NOT VERY LIKELY  
                           04 = NOT AT ALL LIKELY  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD
- I5                    2    WHICH DESCRIBES ARMY CAREER INTENTIONS  
                           01 = DEFINITELY STAY IN UNTIL RETIREMENT  
                           02 = PROBABLY STAY IN UNTIL RETIREMENT  
                           03 = DEFINT STAY BEYOND PRESENT OBLIGATION  
                           04 = PROBABLY STAY IN BEYOND OBLIGATION  
                           05 = DEFINITELY LEAVE UPON COMPLETION  
                           06 = PROBABLY LEAVE UPON COMPLETION  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD
- I6                    2    HOW MANY YEARS SINCE RCVD CURRENT RANK  
                           01 = LESS THAN 1 YEAR  
                           02 = 1 YEAR  
                           03 = 2 YEARS  
                           04 = 3 YEARS  
                           05 = 4 YEARS  
                           06 = 5 YEARS  
                           07 = 6 YEARS  
                           08 = 7 YEARS  
                           09 = 8 YEARS  
                           10 = 9 YEARS OR MORE  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD
- I7                    2    IF REMAIN IN ARMY, HOW LIKELY PROMOTED?  
                           01 = N/A; ATTAINED HIGHEST RANK FOR MY CAREER

02 = N/A; WILL LEAVE/RETIRE BEFORE ELIGIBLE  
03 = EXTREMELY LIKELY  
04 = SOMEWHAT LIKELY  
05 = NOT SURE  
06 = SOMEWHAT LIKELY  
07 = EXTREMELY UNLIKELY  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I8

2 RATE CHANCES FOR PROMOTION WITHIN C-M-F

-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I9\_1

2 IS THIS BECAUSE - MARK ALL THAT APPLY

01 = PERFORMANCE HAS BEEN BELOW AVERAGE  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I9\_2

2 IS THIS BECAUSE - MARK ALL THAT APPLY

02 = BEING WOMAN LOWERS OPPORTUN/PROMOTN  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I9\_3

2 IS THIS BECAUSE - MARK ALL THAT APPLY

03 = BEING MINORITY LOWERS OPPORTUN/PROMOTN  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I9\_4

2 IS THIS BECAUSE - MARK ALL THAT APPLY

04 = PRSONAL CONFLCT BTW YOU/SUPRVSR/SUPRIOR  
-9 = LEGITIMATE NONRESPONSE  
-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL

-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I9\_5                    2    IS THIS BECAUSE - MARK ALL THAT APPLY  
                          05 = OTHER REASONS  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

I10                    2    12 MOS: RECOGNITION OUTSTANDING CONDUCT  
                          01 = MEMORANDUM OF APPRECIATION/COMM  
                          02 = CERT APPRECIATION/RECOMMENDATION  
                          03 = SPECL EVAL REPORT OUTSTANDING PERFORMNCE  
                          04 = TIME OFF FROM DUTY FOR OUTSTANDING PERFM  
                          05 = MILITARY MEDAL OUTSTANDING PERFORMANCE  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

I11                    2    12 MOS: RCVD ADVERSE EFFICIENCY REPORT  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

I12                    2    12 MOS: RCVD ANY DISCIPLINARY ACTION  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE  
                          -8 = BLANK OR NONRESPONSE  
                          -7 = REFUSAL  
                          -6 = MULTIPLE RESPONSE  
                          -5 = BAD DATA (OUT OF RANGE)  
                          -4 = DON'T KNOW  
                          -3 = NOT APPLICABLE  
                          -2 = ILLEGIBLE  
                          -1 = NO DATA IN RECORD

I13                    2    NXT 12 MO: CONERN MAY RCV ADVERSE EFF REP  
                          01 = YES  
                          02 = NO  
                          -9 = LEGITIMATE NONRESPONSE

-8 = BLANK OR NONRESPONSE  
-7 = REFUSAL  
-6 = MULTIPLE RESPONSE  
-5 = BAD DATA (OUT OF RANGE)  
-4 = DON'T KNOW  
-3 = NOT APPLICABLE  
-2 = ILLEGIBLE  
-1 = NO DATA IN RECORD

I14                    2    LAST PERFOR. EVAL, HOW WERE YOU RATED?  
                         01 = EXCEEDING STANDARDS OR EXPECTATIONS  
                         02 = MEETING STANDARDS OR EXPECTATIONS  
                         03 = BELOW STANDARDS OR EXPECTATIONS  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

ESC\_017            A       1    ESCAPE CHARACTER - FORMAT PAGE 017

FMT\_018                    3    FORMAT PAGE 018

I15\_1                    2    PRIDE IN BEING IN ARMY RESERVES  
                         01 = CHECKED  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

I15\_2                    2    DOING SOMETHING IMPORTANT  
                         02 = CHECKED  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

I15\_3                    2    I LIKE MY JOB  
                         03 = CHECKED  
                         -9 = LEGITIMATE NONRESPONSE  
                         -8 = BLANK OR NONRESPONSE  
                         -7 = REFUSAL  
                         -6 = MULTIPLE RESPONSE  
                         -5 = BAD DATA (OUT OF RANGE)  
                         -4 = DON'T KNOW  
                         -3 = NOT APPLICABLE  
                         -2 = ILLEGIBLE  
                         -1 = NO DATA IN RECORD

I15\_4                    2    GOOD BENEFITS  
                         04 = CHECKED  
                         -9 = LEGITIMATE NONRESPONSE

-8 = BLANK OR NONRESPONSE  
 -7 = REFUSAL  
 -6 = MULTIPLE RESPONSE  
 -5 = BAD DATA (OUT OF RANGE)  
 -4 = DON'T KNOW  
 -3 = NOT APPLICABLE  
 -2 = ILLEGIBLE  
 -1 = NO DATA IN RECORD

I15\_5                    2    OPPORTUNITIES I MAY NOT HAVE HAD OTHERWISE  
                           05 = CHECKED  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

I15\_6                    2    PEOPLE I WORK FOR OR WORK WITH  
                           06 = CHECKED  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

I15\_7                    2    OPPORTUNITIES I MAY NOT HAV HAD OTHERWISE  
                           07 = CHECKED  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

I15\_8                    2    OTHER  
                           08 = CHECKED  
                           -9 = LEGITIMATE NONRESPONSE  
                           -8 = BLANK OR NONRESPONSE  
                           -7 = REFUSAL  
                           -6 = MULTIPLE RESPONSE  
                           -5 = BAD DATA (OUT OF RANGE)  
                           -4 = DON'T KNOW  
                           -3 = NOT APPLICABLE  
                           -2 = ILLEGIBLE  
                           -1 = NO DATA IN RECORD

I15\_8\_SP                A       100 OTHER -- SPECIFY FIELD

TICOM                    3       COMPLETE  
                           RANGE = 000 - 999

ESC\_018                A       1       ESCAPE CHARACTER - FORMAT PAGE 018

**APPENDIX K**  
**FREQUENCY DISTRIBUTIONS OF**  
**SEXUAL HARASSMENT ITEMS**

Proportions of Respondents Reporting Different Frequencies of Sexual Harassment Experiences  
Active Duty Enlisted

		Very often	Often	Sometimes	Once/twice	Never	Total
D11a	Sexual stories, jokes	35 4.59	47 6.16	135 17.69	230 30.14	316 41.42	763 100
D11b	Whistled, called, hooted	54 7.08	101 13.24	164 21.49	149 19.53	295 38.66	763 100
D11c	Discussion of sexual matters	55 7.22	78 10.24	134 17.59	164 21.52	331 43.44	762 100
D11d	Crude, offensive remarks	51 6.69	63 8.27	119 15.62	173 22.70	356 46.72	762 100
D11e	Sexual discrimination	59 7.74	56 7.35	133 17.45	145 19.03	369 48.43	762 100
D11f	Offensive remarks	51 6.68	66 8.65	127 16.64	154 20.18	365 47.84	763 100
D11g	Pressure for dates	57 7.46	79 10.34	117 15.31	120 15.71	391 51.18	764 100
D11h	Bribes for sexual behavior	21 2.76	25 3.28	54 7.09	65 8.53	597 78.35	762 100
D11i	Forced sexual cooperation	10 1.31	17 2.23	27 3.54	41 5.37	668 87.55	763 100
D11j	Unwanted attempts	20 2.62	27 3.54	50 6.56	115 15.09	550 72.18	762 100
D11k	Other sex-related behavior	8 1.23	8 1.23	20 3.06	20 3.06	597 91.42	653 100

Proportions of Respondents Reporting Different Frequencies of Sexual Harassment Experiences  
Active Duty Officer

		Very often	Often	Sometimes	Once/twice	Never	Total
D11a	Sexual stories, jokes	1 1.59		10 15.87	19 30.16	33 52.38	63 100
D11b	Whistled, called, hooted		1 1.56	6 9.38	15 23.44	42 65.63	64 100
D11c	Discussion of sexual matters			8 12.70	11 17.46	44 69.84	63 100
D11d	Crude, offensive remarks			6 9.52	9 14.29	48 76.19	63 100
D11e	Sexual discrimination	3 4.76	2 3.17	16 25.40	11 17.46	31 49.21	63 100
D11f	Offensive remarks		1 1.59	5 7.94	11 17.46	46 73.02	63 100
D11g	Pressure for dates	1 1.59		2 3.17	10 15.87	50 79.37	63 100
D11h	Bribes for sexual behavior				2 3.17	61 96.83	63 100
D11i	Forced sexual cooperation				2 3.17	61 96.83	63 100
D11j	Unwanted attempts				2 3.28	59 96.72	61 100
D11k	Other sex-related behavior			1 1.64	2 3.28	58 95.08	61 100

Proportions of Respondents Reporting Different Frequencies of Sexual Harassment Experiences  
Reserves Enlisted

		Very often	Often	Sometimes	Once/twice	Never	Total
D11a	Sexual stories, jokes	9 1.93	9 1.93	96 20.60	120 25.75	232 45.79	466 100
D11b	Whistled, called, hooted	26 5.58	29 6.22	81 17.38	105 22.53	225 48.28	466 100
D11c	Discussion of sexual matters	10 2.16	27 5.82	65 14.01	96 20.69	266 57.33	464 100
D11d	Crude, offensive remarks	16 3.43	17 3.65	66 14.16	72 15.45	295 63.30	466 100
D11e	Sexual discrimination	14 3.01	20 4.30	68 14.62	76 16.34	287 61.72	465 100
D11f	Offensive remarks	16 3.46	17 3.67	65 14.04	74 15.98	291 62.85	463 100
D11g	Pressure for dates	19 4.07	30 6.42	44 9.42	74 15.85	300 64.24	467 100
D11h	Bribes for sexual behavior	6 1.28	12 2.57	21 4.50	33 7.07	395 84.58	467 100
D11i	Forced sexual cooperation	5 1.07	3 0.64	7 1.50	21 4.51	430 92.27	466 100
D11j	Unwanted attempts	4 0.86	9 1.93	16 3.43	58 12.45	379 81.33	466 100
D11k	Other sex-related behavior	3 0.76	2 0.51	2 0.51	8 2.03	380 96.20	395 100

Proportions of Respondents Reporting Different Frequencies of Sexual Harassment Experiences  
Reserves Officer

		Very often	Often	Sometimes	Once/twice	Never	Total
D11a	Sexual stories, jokes	4 1.90	7 3.32	27 12.80	54 25.59	119 56.40	211 100
D11b	Whistled, called, hooted	3 1.42	7 3.32	25 11.85	47 22.27	129 61.14	211 100
D11c	Discussion of sexual matters	4 1.90	6 2.84	22 10.43	38 18.01	141 66.82	211 100
D11d	Crude, offensive remarks	3 1.42	6 2.84	20 9.48	34 16.11	148 70.14	211 100
D11e	Sexual discrimination	5 2.37	9 4.27	27 12.80	50 23.70	120 56.87	211 100
D11f	Offensive remarks		3 1.42	21 9.95	31 14.69	156 73.93	211 100
D11g	Pressure for dates	5 2.37	5 2.37	8 3.79	27 12.80	166 78.67	211 100
D11h	Bribes for sexual behavior	1 0.47	3 1.42	4 1.90	8 3.79	195 92.42	211 100
D11i	Forced sexual cooperation		1 0.47		5 2.37	205 97.16	211 100
D11j	Unwanted attempts		2 0.95	4 1.90	17 8.10	187 89.05	210 100
D11k	Other sex-related behavior		1 0.54	1 0.54	7 3.80	175 95.11	184 100

Proportions of Respondents Reporting Different Frequencies of Sexual Harassment Experiences  
Reserves all

		Very often	Often	Sometimes	Once/twice	Never	Total
D11a	Sexual stories, jokes	13 1.92	16 2.36	123 18.17	174 25.70	351 51.85	677 100
D11b	Whistled, called, hooted	29 4.28	36 5.32	106 15.66	152 22.45	354 52.29	677 100
D11c	Discussion of sexual matters	14 2.07	33 4.89	87 12.89	134 19.85	407 60.30	675 100
D11d	Crude, offensive remarks	19 2.81	23 3.40	86 12.70	106 15.66	443 65.44	677 100
D11e	Sexual discrimination	19 2.81	29 4.29	95 14.05	126 18.64	407 60.21	676 100
D11f	Offensive remarks	16 2.37	20 2.97	86 12.76	105 15.58	447 66.32	674 100
D11g	Pressure for dates	24 3.54	35 5.16	52 7.67	101 14.90	466 68.73	678 100
D11h	Bribes for sexual behavior	7 1.03	15 2.21	25 3.69	41 6.05	590 87.02	678 100
D11i	Forced sexual cooperation	5 0.74	4 0.59	7 1.03	26 3.84	635 93.80	677 100
D11j	Unwanted attempts	4 0.59	11 1.63	20 2.96	75 11.09	566 83.73	676 100
D11k	Other sex-related behavior	3 0.52	3 0.52	3 0.52	15 2.59	555 95.85	579 100

Proportions of Respondents Reporting Different Frequencies of Sexual Harassment Experiences  
All

		Very often	Often	Sometimes	Once/twice	Never	Total
D11a	Sexual stories, jokes	49 3.26	63 4.19	268 17.83	423 28.14	700 46.57	1503 100
D11b	Whistled, called, hooted	83 5.52	138 9.18	276 18.35	316 21.01	691 45.94	1504 100
D11c	Discussion of sexual matters	69 4.60	111 7.40	229 15.27	309 20.60	782 52.13	1500 100
D11d	Crude, offensive remarks	70 4.66	86 5.73	211 14.05	288 19.17	847 56.39	1502 100
D11e	Sexual discrimination	81 5.40	87 5.80	244 16.26	282 18.79	807 53.76	1501 100
D11f	Offensive remarks	67 4.47	87 5.80	218 14.53	270 18.00	858 57.20	1500 100
D11g	Pressure for dates	82 5.45	114 7.57	171 11.36	231 15.35	907 60.27	1505 100
D11h	Bribes for sexual behavior	28 1.86	40 2.66	79 5.26	108 7.19	1248 83.03	1503 100
D11i	Forced sexual cooperation	15 1.00	21 1.40	34 2.26	69 4.59	1364 90.75	1503 100
D11j	Unwanted attempts	24 1.60	38 2.54	70 4.67	192 12.81	1175 78.39	1499 100
D11k	Other sex-related behavior	11 0.85	11 0.85	24 1.86	37 2.86	1210 93.58	1293 100

# Articles in Women in the Military Stressors Library

## A

Aardal-Eriksson, E., Eriksson, T.E., Holm, A., & Lundin, T. Salivary cortisol and serum prolactin in relation to stress rating scales in a group of rescue workers. *Society of Biological Psychiatry*. 1999;46(6):850-855.

Acevedo, G. *Examining a Model for Assessing of Social and Psychological Factors on Health Outcomes*. Presented at the IUS Biennial International Conference, October 1997.

Adelsberger, B. As job restrictions ease, female recruiting prospers. *Army Times*. 1994, August:14.

Aderibigbe, Y.A., Riley, W., Lewin, T., Gureje, O. Factor structure of the 28-item general health questionnaire in a sample of antenatal women. *International Journal of Psychiatry in Medicine*. 1996;26(3):263-269.

Aguilera D. Crisis intervention: *Theory and Methodology* (7th ed.). Mosby: St. Louis; 1994.

Alexander, L.L., Beck, K. The smoking behavior of military nurses: the relationship to job stress, job satisfaction and social support. *Journal of Advance Nursing*. 1990, July;15(7):843-849.

Allen, J.P., Maisto, S.A., Connors, G.J. Self-report screening tests for alcohol problems in primary care. *Archives of Internal Medicine*. 1995, Sept 11;155(16):1726-1730.

Allen, R.D. & Fry, F.L. An investigation of sex as moderator of the relationship between occupational stress and perceived organizational effectiveness in formal groups. *Journal of Behavioral Economics*. 1987, Summer;16(2):9-15.

Alpass, F. 1997. Job satisfaction differences between military and ex-military personnel: the role of demographic and organizational models. *Military Psychology* 9(3): 227-249.

Abramis, D.J. Relationship of job stressors to job performance: Linear or an invested-U? *Psychological Reports*. 1994;75:547-558.

American Psychiatric Association. *Diagnostic and statistical manuals of mental disorders* (3<sup>rd</sup> ed.). Washington, DC: American Psychiatric Association; 1990.

Anderson, J. St. C., Sullivan, F. Usherwood, T.P. The Medical Outcomes Study Instrument (MOSI) Use of a New Health Status Measure in Britain. *Family Practice*. 1990;7(3):205-218.

Aro, S. Occupational Stress, health-Related Behavior, and Blood Pressure: A 5-Year Follow-Up. *Preventive Medicine*. 1984;13:333-348.

Attridge, C., Callahan, M. Women in women's work: nurses, stress and power. *Recent Advances in Nursing*. 1989;25:41-69.

## B

Bailey, W.C., Sellers, C.A., Sutton, Jr., F.D., Sheehy, T.W. & Maetz H.M. Tuberculosis and Alcoholism: A partial solution through detection. *CHEST*. 1978, February;72(2):183-185.

Baker, M.S., Armfield, F. Preventing post-traumatic stress disorders in military medical personnel. *Military Medicine*. 1996, May;161(5):262-345.

Baker, R.R., Menard, S.W., & Johns, L.A. The military nurse experience in Vietnam: Stress and impact. *Journal of Clinical Psychology*. 1989;45:736-744.

Bancroft, J. Impact of Environment, Stress, Occupational, and Other Hazards on Sexuality and Sexual Behavior. *Environmental Health Perspectives Supplements*. 1993;101 (Suppl2):101-107.

Banks, M.H. Validation of the General Health Questionnaire in a young community sample. *Psychological Medicine*. 1983, May;13(2):

Barnett, R.C., Baruch, G.K. Women's involvement in multiple roles and psychological distress. *Journal of Personal & Social Psychology*. 1985;49:133-145.

Barnett, R.C., Davidson, H., Marshall, N.L. Physical symptoms and the interplay of work and family roles. *Health Psychology*. 1991;10(2):94-101.

Bartol, C.R., Bergen, G.T., Volckens, Knoras, K.M. Women in Small-Town Policing: Job Performance and Stress. *Criminal Justice and Behavior*. 1992, Sep;19(3):240-259.

Bartz, C., Maloney, J.P. Burnout among intensive care nurses. *Research Nursing Health*. 1986;9:147-153.

Baruch, G.K., Biener, L. & Barnett R.C. Women and Gender in Research on Work and Family Stress. *American Psychologist*. 1987, February;42(2):130-136.

Bastin, L.D., Lancaster, A.R., Reyst, H.E. *Department of Defense 1995 Sexual Harassment Survey*. Defense Manpower Data Center. Report DMDC 96-015. 1996(Dec):1-81.

Baum, A., O'Keefe, M., Davidson, L. Acute stressors and chronic response: The case of traumatic stress. *Journal of Applied Social Psychology*. 1990;20(20):1643-1654.

- Becraft, C. Women in the US Armed Services: The War in the Persian Gulf. *Women and Criminal Justice*. 1992;4(1):155-163.
- Beehr, T.A., Stacy, B.A., & Murray, M.A. Work stressors and coworker support as predictors of individual strain and job performance. *Journal of Organizational Behavior*. 2000;21:391-405.
- Beena, C., Poduval, P.R. Gender differences in work stress of executives. *Psychological Studies*. 1992;37(2 & 3):109-113.
- Beer, J., Beer, J. Burnout and stress, depression and self-esteem of teachers. *Psychological Report*. 1992;71:1331-1336.
- Bell, H., & Steensland, H. Serum Activity of Gamma-glutamyltranspeptidase (GGT) in Relation to Estimated Alcohol Consumption and Questionnaires in Alcohol Dependence Syndrome. *British Journal of Addiction*. 1987;82:1021-1026.
- Belle, D. The stress of caring: Women as providers of social support. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 496-505). New York: The Free Press; 1982.
- Benjamin, S., Decalmer, P., Haran, D. Community screening for mental illness: a validity study of the General Health Questionnaire. *British Journal of Psychiatry*. 1982, Feb;140:174-180.
- Benjamin, S., Lennon, S., Gardner, G. The validity of the General Health Questionnaire for first-stage screening for mental illness in pain clinic patients. *PAIN*. 1991;47:197-202.
- Berkowitz, S.M., Feuerstein, M., Lopez, M.S., & Peck, Jr., C.A. Occupational back disability in U.S. Army personnel. *Military Medicine*. 1999;164(6):412-418.
- Bernadt, M.W., Mumford, J., Taylor, C., Smith, B. & Murray, RM. *The Lancet*. 1982, February; 6:325-328.
- Bickel, W.K., Amass, L. The relationship of mean daily blood levels to admission to MAST, clinic absenteeism and depression in alcoholic methadone patients. *Drug Alcohol Dependence*. 1993, Apr;32(2):113-118.
- Birgenheier, P.S. Parents and children, war and separation. *Pediatric Nursing*. 1993;19(5):471-476.
- Bishop, G.D. Gender, role, and illness behavior in a military population. *Health Psychology*. 1984;3(6):519-534.
- Bisson, J.I., Milford-Ward, A. A comparison of carbohydrate deficient transferrin with other markers of alcohol misuse in male soldiers under the age of 30. *Alcohol Alcoholism*. 1994, May;29(3):315-321.

- Bjorck, J.P., Cohen, L.H. Coping with Threats, Losses, and Challenges. *Journal of Social and Clinical Psychology*. 1993;12(1):56-72.
- Bjornson, L.M.. *The role of job-related self-efficacy in the relationship between work stress, strain, and alcohol consumption*. Dissertation Abstracts International. 1990;51(08-B):4040. (University Microfilms NO. AAD90-31240).
- Blazer, D., Hughes, D.C., George, L.K. Age and Impaired Subjective Support: Predictors of Depressive Symptoms at One-Year Follow-Up. *Journal of Nervous Mental Disorder*. 1992;180(3):172-178.
- Bloom, B.L. *Stressful life event theory and research: Implications for primary prevention*. DHHS Publication No. (ADM) 85-1385), Rockville, MD: National Institute of Mental Health; 1985.
- Blount, B.W., Curry, Jr., A., Lubin, G.I. Family separations in the military. *Military Medicine*. 1992, Feb;157(2):76-80.
- Blower, D.J., Dolgin, D.L., Shull, R.N. *Naval Aviation Selection Test Scores and Female Aviator Performance*. Naval Aerospace Medical Research Laboratory, Naval Air Station, Pensacola. 6-1-B 6-5.
- Boise, L. & Neal, M.B. Family Responsibilities and Absenteeism: Employees Caring For Parents Versus Employees Caring for Children. *Journal of Managerial Issues*. 1996, Summer; VIII(2):218-238.
- Borman, J.S. Chief nurse executives balance of their work and personal lives. *Nursing Administration Questionnaire*. 1993;18(1):30-39.
- Bourbonnais, R., Brisson, C., Moisan, J. & Vezina, M. Job strain and psychological distress in white-collar workers. *Scandinavian Journal of Work and Environmental Health*. 1996;22:139-145.
- Boxer, P.A., and D. Wild. 1993. Psychological distress and alcohol use among fire fighters. *Scandinavian Journal of Work, Environment and Health* 19(2)121-125 & 129.
- Bowen, G.L. Single Mothers for the Defense. *Conciliation Courts Review*. 1987, Jun;25(1):13-18.
- Bowen, G.L., Orthner, D.K. Single Parents in the US Air Force. *Family Relations*. 1986;35:45-52.
- Bowen, G.L., Orthner, D.K., Zimmerman, L.I. Family adaptation of single parents in the United States Army: an empirical analysis of work stressors and adaptive resources. *Family Relations*. 1993;42:293-304.

- Bradley, K.A., Boyd-Wickizer, J., Powell, S., Burman, M.L. Alcohol Screening Questionnaires in Women, A Critical Review. *Journal of American Medical Association*. 1998, July 8;280(2); 166-171.
- Bray, R.M. *Military, Drug and Alcohol Abuse in the U.S.* To appear in The MacMillian Encyclopedia of Drugs and Alcohol. Research Triangle Institute, RTP, NC. July 21, 2000.
- Bray, R.M., Fairbank, J.A. & Marsden, M.E. Stress and Substance Use Among Military Women and Men. *American Journal of Drug Alcohol Abuse*. 1999;25(2):239-256.
- Bray, R.M., Kroutil, L.A., Marsden, M.E. Trends in Alcohol, Illicit Drug, and Cigarette Use among U.S. Military Personnel: 1980-1992. *Armed Forces and Society*. 1995, Winter;21(2):271-293.
- Brende, J.O., Parson, E.R. Special veteran groups: Women and the ethnic minorities. In Brende JO, Parson ER (Eds.), *Vietnam veterans: The road to recovery*. New York: Plenum Press; 1985.
- Breslin, F.C., O'Keefe, M.K., Burrell, L., Ratliff-Crain, J. et al. The effects of stress and coping on daily alcohol use in women. *Addict Behavior*. 1995;29(2):141-147.
- Brimer, R.B. Relationships between work environments, psychological environments and psychological well-being. *Occupational Medicine*. 2000;50(5):299-303.
- Briscoe, M.E. Why do people go to the doctor? Sex differences in the correlates of GP consultation. *Social Science Medicine*. 1987;25:507-513.
- Brown, J., J. Fielding, and J. Grover. Distinguishing traumatic, vicarious and routine operational stressor exposure and attendant adverse consequences in a sample of police officers. *Work & Stress*. 1999;3(4):312-325.
- Brown-Rowat, B., Amsel, R., Jeans, M.E. Professional and Executive Women: Health and Lifestyle Characteristics. *Health Care for Women International*. 1990;11:133-149.
- Brugha, T.S., Bebbinton, P.E, Stretch, D.D., MacCarthy, B., Wykes, T. Predicting the short-term outcome of first episodes and recurrences of clinical depression: a prospective study of life events, difficulties, and social support networks. *Journal of Clinical Psychiatry*. 1997, Jul;58(7):298-306.
- Bruusgard, A. Shiftwork as an occupational health problem. *Studia Laboris et Salutis*. 1975;4:9-14.
- Burke, R.J. Stressful Events, Work-Family Conflict, Coping, Psychological Burnout, and Well-being Among Police Officers. *Psychological Reports*. 1994;75:787-800
- Burvill, P.W., Knviman, M.W. Which version of the General Health Questionnaire should be used in community studies? *Australian New Zealand Journal of Psychiatry*. 1983, Sep;17(3):237-242.

Butters, M., Retzlaff, P., Gibertini, M. Non-adaptability to Basic Training and the million Clinical Multiaxial Inventory. *Military Medicine*. 1986, Nov;151:574-576.

Butts, N.K., Kelly, K.M., Foley, T.S. Energy costs of walking on a dual-action treadmill in men and women. *Medicine and Science in Sports and Exercise*. 1995;11:121-125.

Butts, N.K., Tucker, M., Greening, C. Physiologic responses to maximal treadmill and deep water running in men and women. *American Journal of Sports Medicine*. 1991;19(6):612-614.

## C

Caddell, J.M., & Drabman, R.S. Post-traumatic stress disorder in children. In R.T. Ammerman & M. Hersen (Eds.), *Handbook of behavior therapy with children and adults: A longitudinal perspective*. Needham, MA: Allyn and Bacon; 1993.

Campbell, J.C. & Lewandowski, L.A. Mental and Physical Health Effects of Intimate Partner Violence on Women and Children. *Anger, Aggression and Violence*. 1997;20(2):353-374.

Call, V.R.A, Teachman, J.D. Life-Course Timing and Sequencing of Marriage and Military Service and Their Effects on Marital Stability. *Journal of Marriage and the Family*. 1996, Feb;58:219-226.

Centers for Disease Control Vietnam Experience Study. Health Status of Vietnam Veterans: I. Psychological Characteristics. *Journal of the American Medical Association*. 1988, May13;259(18):2701-2707.

Chalmers, D., Olenick, N.L., Stein, W. Dispositional Traits as Risk in Problem Drinking. *Journal of Substance Abuse*. 1993;5:401-410.

Chan, A.W.K., Pristach, E.A. & Welte, J.W. Detection of Alcoholism in Three Populations by the Brief-Mast. *Alcoholism: Clinical and Experimental Research*. 1994,May/June;18(3):695-701.

Chandler, J., Bryant, L., Bunyard, T. Women in military occupations. *Work, Employment & Society*. 1995;9(1):123-135.

Charney, D.A., & Russell, R.C. An overview of sexual harassment. *American Journal of Psychiatry*. 1994;151(1):10-17.

Cheren, S. *Psychosomatic medicine: theory, physiology, and practice*. Madison, CT: International Universities Press; 1989.

Cherpitel, C.J. Gender, injury status and acculturation differences in performance of screening instruments for alcohol problems among US Hispanic emergency department patients. *Drug and Alcohol Dependence*. 1999;53:147-157.

- Cherpitel, C.J. Comparison of screening instruments for alcohol problems between black and white emergency room patients from two regions of the country. *Alcoholism: Clinical and Experimental Research*. 1997, November; 21(8):1391-1397.
- Cherpitel, C.J. Screening for alcohol problems in emergency department. *Annals of Emergency Medicine*. 1995, August; 26(2):158-166.
- Cherpitel, C.J. Screening for alcohol problems in the emergency room: a rapid alcohol problem screen. *Drug and Alcohol Dependence*. 1995; 40:133-137.
- Clohessy, S., and A. Shlers. 1999. PTSD symptoms, response to intrusive memories and coping in ambulance service workers. *British Journal of Clinical Psychology* 38(3):251-265.
- Cohen, S., Hoberman, H.M. Positive events and social support as buffers of life change stress. *Journal of Applied Social Psychology*. 1983; 13(2):99-125.
- Cohen, S., Kamarck, T., Mermelstein, R. A Global Measure of Perceived Stress. *Journal of Health and Social Behavior*. 1983, Dec; 24:385-396.
- Cohen, S., Syme, S.L. Issues in the study and application of social support. In S Cohen & SL Syme (Eds.), *Social Support and Health*, New York: Academic; 1984.
- Cohen, S., Wills, T.A. Stress, social support, and the buffering hypothesis. *Psychological Bulletin*. 1985; 98(2):310-357.
- Coleman, J.S. Social Capital in the Creation of Human Capital. *American Journal of Sociology*. 1988; 94(Supplement):S95-S120.
- Conger, R.D., Elder, G.H., Simons, R.L., GE, X. Husband and Wife Differences in Response to Undesirable Events. *Journal of Health & Social Behavior*. 1993; 34(1):71-88.
- Cooper, C.L., Sloan, S.J., Williams, S. *Occupational stress indicator: Management guide*. NFER-Nelson, Windsor, UK; 1988.
- Cornwell, M.W. Effect of Temperature on Muscle Force and Rate of Muscle Force Production in Men and Women. *Journal of Social & Psychological Therapy (JOSPT)*. 1994, Aug; 20(2):74-80.
- Correnti, E.E, Jensen, P.S. Support of the pregnant soldier in the workplace: A comparison of her assessment with that of her supervisor. *Military Medicine*. 1989, Nov; 154(11):571-573.
- Crabbs, M.A., Black, K.U., Morton, S.P. Stress at Work: A Comparison of Men and Women. *Journal of Employment Counseling*. 1986; 23(1):2-8.
- Croake, J.W., Lyon, R.S., Myers, K.M. Marital Adjustment and Personality in Aviation-Related and Nonrated Warrant Officers. *Military Medicine*. 1986, Mar; 151:173-174.

Crowe, R.R., Kramer, J.R., Hesselbrock, V., Manos, G., & Buchloz K.K. The Utility of the Brief MAST and the CAGE in Identifying Alcohol Problems: Results from National High-Risk and Community Samples. *Archive of Family Medicine*. 1997, September-October;6:477-483.

Culbertson, A.L., Rosenfeld, P. Assessment of Sexual Harassment in the Active-Duty Navy. *Military Psychology*. 1994;6(2):69-93.

## D

Dahl, S., and S. Kristensen. Health profile of Danish army personnel. *Military Medicine*. 1997;162(6):435-440.

Dahl, J. & O'Neal, J. Stress and coping behavior of nurses in Desert Storm. *Journal of Psychosocial Nursing*. 1993;31(10):17-21.

Dalgard, O.S., Bjork, S., Tambs, K. Social Support, Negative Life Events and Mental Health. *British Journal of Psychiatry*. 1995;166:29-34.

Davidson LM, Baum A. Predictors of chronic stress among Vietnam veterans: Stressor exposure and intrusive recall. *Journal of Traumatic Stress*. 1993, April;6(2):195-212.

Davies, F., Norman, R.M.G., Cortese, L., Malla, A.K. The Relationship Between Types of Anxiety and Depression. *Journal of Nervous Mental Disorders*. 1995;183(1):31-35.

Deahl, M.P., Gillham, A.B., Thomas, J., Searle, M.M., Srinivasan, M. Psychological Sequelae Following the Gulf War: Factors Associated with Subsequent Morbidity and the Effectiveness of Psychological Debriefing. *British Journal of Psychiatry*. 1994;165:60-65.

Deckel, A.W., Hesselbrock, V. Behavioral and cognitive measurements predict scores on the MAST: a 3-year prospective study. *Alcohol & Clinical Exposure Research*. 1996;20(7):1173-1178.

DeFleur, L.B. Organizational and Ideological Barriers to Sex Integration in Military Groups. *Work and Occupation*. 1985, May;12(2):206-228.

DeLongis, A., Folkman, S., Lazarus, R.S. The Impact of Daily Stress on Health and Mood: Psychological and Social Resources as Mediators. *Journal of Personality and Social Psychology*. 1998;54(3):486-495.

DeVilbiss, M.C. Gender Integration and Unit Deployment: A Study of GI Jo. *Armed Forces and Society*. 1985, Summer;11(4):523-552.

Dienstfrey, S.J. Women Veterans Exposure to Combat. *Armed Forces and Society*. 1988, Summer;14(4):549-558.

Dirksen, M.E. Unemployment: more than the loss of job. *AAOHN Journal*. 1994, October; 42(10):468-476.

DiSalvo, V., Lubbers, C., Rossi, A.M., Lewis, J. The impact of gender on work-related stress. *Journal of Social Behavior and Personality*. 1988;3:161-176.

Dohrenwend, B.P., Shrout, P.E. "Hassles" in the Conceptualization and Measurement of Life Stress Variables. *American Psychologist*. 1985;40(7):780-785.

Dohrenwend, B.P., Shrout, P.E. "Hassles" in the conceptualization and measurement of life stress variables. *American Psychology*. 1981;9:128.

Donovan, M.A. and Drasgow, F. Do Men's and Women's Experiences of Sexual Harassment Differ? An Examination of the Different Test Functioning of the Sexual Experiences Questionnaire. *Military Psychology*. 1999;11(3):265-282.

DuBois, C.L.Z., Faley, R.H., Kustis, G.A., Knapp, D.E. Perceptions of Organizational Responses to Formal Sexual Harassment Complaints. *Journal of Managerial Issues*. 1999, Summer; XI(2):198-212.

DuBois, C.L.Z., Knapp, D.E., Faley, R.H., Kustis, G.A. An Empirical Examination of the Same- and Other-Gender Sexual Harassment in the Workplace. *Sex Roles*. 1998;39(9/10):731-749.

Driskell, J.E., Olmstead, B. Psychology and the Military: Research Applications and Trends. *American Psychologist*. 1989, January; 44(1): 43-45.

Dritschel, B.H., Pettinati, H.M. The Role of Female Occupation in Severity of Alcohol-Related Problems. *American Journal of Drug & Alcohol Abuse*. 1989;15(1):61-72.

Ducharme, L.J. & Martin, J.K. Unrewarding Work, Coworker Support, and Job Satisfaction: A Test of the Buffering Hypothesis. *Work and Occupations*. 2000, May;27(2):230-243.

Duncan-Jones, P. Validity and uses of the GHQ. *British Journal of Psychiatry*. 1979, Oct;135:382.

Dunne, E.A., Mullins, P.M. Sex Differences in psychological and psychophysical arousal patterns: a study of working couples. *Work & Stress*. 1989;3(3):261-268

## E

Ehinger, J., Heifetz, L.J., Ingraham, C. Situational Shifts in Sex Role Orientation: Correlates of Work Satisfaction and Burnout Among Women in Special Education. *Sex Roles*. 1991;25(7/8):425-440.

Eisler, R.M., Skidmore, J.R., Ward, C.H. Masculine Gender-Role Stress: Predictor of Anger, Anxiety, and Health-Risk Behaviors. *Journal of Personality Assessment*. 1988;52(1):133-141.

Elliott G. Stress and illness. In Cheren S. (Ed.), *Psychosom Med: Theory, Physiology, and Practice (Vol. I)*. Madison, CT: International Universities Press; 1989.

Engel, C.C., Engel, A.L., Campbell, S.J., McFall, M.E., Russo, J., Katon, W. Posttraumatic stress disorder symptoms and precombat sexual and physical abuse in Desert Storm veterans. *Journal of Nervous Mental Disease*. 1993;181(11):683-688.

Escobar, J. Commentary: Post-traumatic stress disorder and the perennial stress-diathesis controversy. *Journal of Nervous Mental Disorders*. 1987;175(5):265-266.

Eshkol, E., Lieblich, A., Bar-Yosef, R., Wiseman, H. Some Correlates of Adjustment of Israeli Women-Soldiers to Their Military Roles. *Israel Social Science Research*. 1987;5(1&2):17-28.

Etzioni, D. Moderating effect of social support on the stress-burnout relationship. *Journal of Applied Psychology*. 1984;69(4):615-622.

Etzioni, D., Pines, A. Sex and culture in burnout and coping among human service professionals: a social psychological perspective. *Journal of Cross-Cultural Psychology*. 1986;17:191-209.

Ezoe, S., Morimoto, K. Quantitative Assessment of Stressors and Stress Reaction: A Review. *Japanese Journal of Industrial Health*. 1994;36:397-405.

## F

Fairbank, J.A., Schlenger, W.E., Caddell, J.M., Woods, M.G. Post-traumatic stress disorder. In P.B. Sutker & H.E. Adams (Eds.), *Comprehensive Handbook of Psychopathology* (pp. 145-163). New York: Plenum Press; 1993.

Faley, R.H., Knapp, D.E., Kustis, G.A., Dubois, C.L.Z. Estimating the organizational costs of sexual harassment: The case of the US Army. *Journal of Business and Psychology*. 1999, Summer;13(4):461-484.

Falkel, J.E., Sawka, M.N., Levine, L., Pandolf, K.B. Upper to Lower body muscular strength and endurance ratios for women and men. *Ergonomics*. 1985;28(12):1661-1670.

Falkel, J.E., Sawka, M.N., Levine, L., Pimental, N.A., Pandolf, K.B. Upper-body exercise performance: comparison between women and men. *Ergonomics*. 1986;29(1):145-154.

Fatkin, L.T. Daily reports of distress: not for women only. *Work and Stress*. 1987;1(3):261-270.

- Firestone, J.M. & Stewart, J.B. Trends in Gender and Racial Equity in Retention and Promotion of Military Officers. *Free Inquiry in Creative Sociology*. 1998, November;26(2):131-134.
- Firth-Cozens, J. Sources of stress in women junior house officers. *British Medical Journal*. 1990, July;301:89-91.
- Fisher, C.A., Hoffman, K.J. & Kao, T. The relationship between heavy alcohol use and work productivity loss in active duty military personnel: A secondary analysis of the 1995 Department of Defense Worldwide Survey. *Military Medicine*. 2000;165(5):355-361.
- Fitzgerald, L.E., Magley, V.J., Drasgow, F., Waldo, C.R. Measuring Sexual Harassment in The Military: The Sexual Experiences Questionnaire (SEQ-D0D). *Military Psychology*. 1999; 11(3):243-263.
- Fletcher BC. *Work, stress, disease, and life expectancy*. New York: Wiley; 1991.
- Folkman, S., Lazarus, R.S., Dunkel-Schetter, C., DeLongis, A, & Gruen, R.J. Dynamics of a Stressful Encounter: Cognitive Appraisal, Coping, and Encounter Outcomes. *Journal of Personality and Social Psychology*. 1986;50(5):992-1003.
- Folkman, S., Lazarus, R.S., Gruen, R.J. & DeLongis, A. Appraisal, Coping, Health Status, and Psychological Symptoms. *Journal of Personality and Social Psychology*. 1986;50(3):571-579.
- Fontana, A., Litz, B, & Rosenheck, R. Impact of Combat and Sexual Harassment on the Severity of Posttraumatic Stress Disorder among Men and Women Peacekeepers in Somalia. *The Journal of Nervous and Mental Disease*. 2000;188(3):163-169.
- Fontana, A., Rosenheck, R. Duty-related and sexual stress in the etiology of PTSD among women veterans who seek treatment. *Psychiatric Service*. 1998, May;49(5):658-62.
- Fontana, A., Rosenheck, R., Horvath, T. Social Support and psychopathology in the war zone. *Journal of Nervous Mental Disorders*. 1997, Nov;185(11):675-681.
- Fontana, A., Schwartz, L.S., Rosenheck, R. Posttraumatic stress disorder among female Vietnam veterans: a casual model of etiology. *American Journal of Public Health*. 1997, Feb;87(2):169-175.
- Foraker, B.M., Michael, W.B. Reliability and Construct Validity of the Dimensions of Self-Concept (DOSC)-Form W Measure for An Air Force Sample. *Education and Psychological Measurement*. 1994, Summer;54(2):409-417.
- Frankenhaeuser, M., Lundberg, U., Fredrikson, M., Melin, B., Tuomisto, M., Myrsten, A.L., Hedman, M., Bergman-Losman, B., Wallin, L. Stress on and off the job as related to sex and occupational status in white-collar workers. *Journal of Organizational Behavior*. 1989;10:321-346.

Franks, P., Campbell, T.L., Shields, CG. Social Relationships and Health: The Relative Roles of Family Functioning and Social Support. *Social Science Medicine*. 1992;34(7):779-788.

Freeman, S.M., & Bisesi, M. Women and Workplace Stress. *AAOHN Journal*. 1988,June;36(6):271-275.

Furey, J.A. Women Vietnam Veterans: A Comparison of Studies. *Journal of Psychosocial Nursing*. 1991;29(3):11-13.

## G

Gemmette, EV. Armed Combat: The Women's Movement Mobilizes Troops in Readiness for the Inevitable Constitutional Attack on the Combat Exclusion for Women in the Military. *Women's Rights Law Reporter*. 1990 Summer;12(2):89-101.

Geyer, S, Broer, M, Haltenhof, H, Buhler, KE, Merschbacher. The Evaluation of Life Event Data. *Journal of Psychosomatic Research*. 1994;38(8):823-835.

George KM. Work stress and social support: Toward a better understanding of sex differences. *Dissertation Abstracts International*. 1988;50(10-B):4816. (University Microfilms No. AAD89-20387).

George, LK, Blazer, DG, Hughes, DC, Fowler, N. Social Support and the Outcome of Major Depression. *British Journal of Psychiatry*. 1989;154:478-485.

Gillespie, BL, Eisler, RM. Development of the Feminine Gender Role Stress Scale: A Cognitive-Behavioral Measure of Stress, Appraisal, and Coping for Women. *Behavior Modification*. 1992;16(3):426-438.

GOA/NSAID-93-93. *Women in the Military Deployment*. 1993:1-58.

Goldberg D. *The General Health Questionnaire*. In: Psychological Well Being. New York: Oxford University Press. 1972;139-151.

Goldberg DP, Gater R, Sartorius N, Ustun TB, Piccinelli M, Gureje O, Rutter C. The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychological Medicine*. 1997;27:191-197.

Goldberg, DP, Hillier, VF. A scaled version of the General Health Questionnaire. *Psychological Medicine*. 1979;9:139-145.

Goldberg, J., Eisen, S.A., True, W.R., & Henderson, W.G. Health Effects of Military Service: Lessons Learned from the Vietnam Experience. *Ann Epidemiol P*. 1992, November;2(6):8410853.

- Goldberger L. Sensory deprivation and overload. In L. Goldberger and S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 410-418). New York: The Free Press; 1982.
- Golding JM, Cooper ML, George LK. Sexual assault history and health perceptions: Seven general population studies. *Health Psychology*. 1997 Sep;16(5):417-425.
- Graham, TE. Thermal, metabolic, and cardiovascular changes in men and women during cold stress. *Medicine and Science in Sports and Exercise*. 1988;20(5):S185-S192.
- Greenglass, ER. An Interactional Perspective on Job Related Stress in Managerial Women. *The Southern Psychologist*. 1985, Spr/Sum;2(4):42-48.
- Greenglass, ER. Psychological Implications of Sex Bias in the Workplace. *Academic Psychology Bulletin*. 1985, Summer;7:227-240.
- Greenglass ER. Type A behavior and coping strategies in female and male supervisors. *Applied Psychology*. 1988;37(3):271-288.
- Greenglass ER, Burke RJ, Ondrack M. A gender-role perspective of coping and burnout. *Applied Psychology*. 1990;39(1):5-27.
- Greenglass, ER, Pantony, KL, Burke, RJ. A Gender-Role Perspective on Role Conflict, Work Stress, and Social Support. *Journal of Social Behavior and Personality*. 1988;3(4):317-328.
- Griffiths TC, Myers DH, Talbot A. A study of the validity of the scaled version of the General Health Questionnaire in paralyzed spinally injured out-patients. *Psychological Medicine*. 1993;23:497-504.
- Gruenwald J. Army Defense Record on Sex Harassment. *Defense & Foreign Policy*. 1997, Feb:376.
- Gruenwald J. Women in the Military: Mission in Progress. *Defense & Foreign Policy*. 1997, Aug;1962-1966.
- Guerts, S.A., Schaufeli, W.B. & Rutte, C.G. Absenteeism, turnover and inequity in the employment relationship. *Work and Stress*. 1999;13(3):253-267.
- Gunby, P. Unique Medical Problems of Military Become Part of Intensified Research Into Women's Health. *Journal of the American Medical Association*. 1995, Sep 25;274(12):932-933.
- Gutgesell, M.E., Timmerman, M., & Keller, A. Reported alcohol use and behavior in long distance runners. *Medicine and Science in Sports and Experience*. 1996, January;28(8):1063-1070.

Gutierrez, S.E. & Saenz, D.S. Job Stress and Health Outcomes among white and Hispanic employees: A Test of the person-environment fit model. *Stress and Health Among Whites and Hispanics*. 107-125.

Gutierrez, L.M. Beyond Coping: An Empowerment Perspective on Stressful Life Events. *Journal of Sociology and Social Welfare*. 1994;21(3):201-219.

## H

Haas M. Women in a male-dominated career: Stress and coping. *Dissertation Abstracts International* 1988;50(04-B):1677. (University Microfilms No. AAD89-08020).

Hakkinen, K. Neuromuscular Fatigue and Recovery in Male and Female Athletes during Heavy Resistance Exercise. *International Journal of Sports Medicine*. 1993;14:53-59.

Halvorsen, J.G. Self-report family assessment instruments: an evaluative review. *Family Practice Research Journal*. 1991, Mar;11(1):21-55.

Hammer, J.S., Mathews, J.J., Lyons, J.S., Johnson, N.J. Occupational stress within the paramedic profession: an initial report of stress levels compared to hospital employees. *Annals of Emergency Medicine*. 1986;15(1):536-539.

Hanklin, C.S., Skinner, K.M., Sullivan, L.M., Miller, D.R., Frayne, S., & Tripp, T.J. Prevalence of depressive and alcohol abuse symptoms among women VA outpatients who report experiencing sexual assault while in the military. *Journal of Traumatic Stress*. 1999;12(4):601-612.

Harris-Butler, W.R. A study of selected psychosocial factors contributing to professional women's perceptions of job stress. *Dissertation Abstracts International*. 1990;51(07-A):2541. (University Microfilms No. AAD90-26925).

Harrison, D.A. & Martocchio, J.J. Time for Absenteeism: A 20-Year Review of Origins, Offshoots, and Outcomes. *Journal of Management*. 1998;24(3):305-350.

Haw, C.E. The family life cycle: a forgotten variable in the study of women's employment and well-being. *Psychological Medicine*. 1995;25:727-738.

Hayes, L.S. The Superwoman Myth. Social Casework: *The Journal of Contemporary Social Work*. 1986;67(7):436-441.

Heim, E. Job Stressors and Coping in Health Professions. *Psychotherapy Psychosom*. 1991;55:90-99.

Henderson, S., Byrne, D.G., & Duncan-Jones, P. *Neurosis and the social environment*. Sydney: Academic Press; 1981.

- Hendrix, W.H., Spencer, B.A., & Gibson, G.S. Organizational and extraorganizational factors affecting stress, employee well-being, and absenteeism for male and females. *Journal of Business and Psychology*. 1994, Winter;9(2):103-128.
- Hills, H., Norvell, N. An examination of hardiness and neuroticism as potential moderators of stress outcomes. *Behavioral Medicine*. 1991, Spring;17(1):31-8.
- Hines JF. A comparison of clinical diagnoses among male and female soldiers deployed during the Persian Gulf War. *Military Medicine*. 1993;158:99-101.
- Hobbs, P., Ballinger, C.B., Greenwood, C., Martin, B., McClure, A. Factor analysis and validation of the General Health Questionnaire in men: a general practice survey. *British Journal of Psychiatry*. 1984, Mar;144:270-275.
- Hobfoll, S.E. Conservation of resources: A new attempt at conceptualizing stress, *American Psychology*. 1989;44:513.
- Hoiberg, A. Sex and occupational differences in hospitalization rates among Navy enlisted personnel. *Journal of Occupational Medicine*. 1980;22:685-690.
- Hoiberg, A., White, J.F. *Health Status of Women in the Armed Forces*. Report No. 89-37 Naval Health Research Center, San Diego, 1989.
- Holahan, C.J., Moose, R.H. Life Stressors, Resistance Factors, and Improved Psychological Functioning: An Extension of the Stress Resistance Paradigm. *Journal of Personality and Social Psychology*. 1990;58(5):909-917.
- Holewijn, M., Hues, R., Wammes, L.J.A. Physiological strain due to load carrying in heavy footwear. *European Journal of Applied Physiology*. 1992;65:129-134.
- Holewijn, M., Lotens, W.A. The influence of backpack design on physical performance. *Ergonomics*. 1992;35(2):149-157.
- Holloway, J.B., Baechle, T.R. Strength Training for Female Athletes: A Review of Selected Aspects. *Sports Medicine*. 1990;9(4):216-228.
- Holmes, T.H., & Rahe, R.H. The social readjustment ratings scale, *Journal of Psychosomatic Research*. 1967;11:213
- Holt RR. Occupational stress. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 419-444). New York: The Free Press; 1982.
- Horsley, J.E. Legally Speaking: Don't Tolerate Sexual Harassment at Work. *Journal of Nursing*. 1990;69-71.
- Hourani, L.L., and H. Yuan. 1999. The mental health status of women in the Navy and Marine Corps: preliminary findings from the perception of wellness and readiness assessments. *Military Medicine* 164:174-181.

Hourani, L.L. Yuan, H., Bray, R.M. & Vincus, A.A. Psychosocial correlates of nicotine dependence among men and women in the U.S. Naval Services. *Addictive Behaviors*. 1999;24(4):521-536.

Houston, B.K., Cates, D.S., Kelly, K.E. Job stress, psychosocial strain, and physical health problems in women employed full-time outside the home and homemakers. *Women Health*. 1992;19(1):1-27.

Hudiburg, R.A., Brown, S.R., Jones, T.M. Psychology of Computer Use: XXIX. Measuring Computer Users' Stress: The Computer Hassles Scale. *Psychological Reports*. 1993;73:923-929.

## I

Institute of Medicine. *Recommendations for Research on the Health of Military Women*. Washington, DC: National Academy Press, 1995.

Ismail, K., N. Blatchley, M. Hotopf, L. Hull, I. Plamer, C. Unwin, A. David, and S. Wessely. 2000. Occupational risk factors for ill health in Gulf veterans of the United Kingdom. *Journal of Epidemiological Community Health* 54:834-838.

## J

Jackson, J.L., O'Malley, P.G., Kroenke, K. A psychometric comparison of military and civilian military practices. *Military Medicine*. 1999, Feb;164(2):112-115.

Jacobsen, B.K., Håsvold, T., Hoyer, G., Hansen, V. The General Health Questionnaire: how many items are really necessary in population surveys? *Psychology Medicine*. 1995, Sep;25(5):957-961.

Jacobson, B.H., Aldana, S.G., Goetzel, R.Z., Vardell, K.D., Adams, T.B., Pietras, R.J. The Relationship Between Perceived Stress and Self-reported Illness-related Absenteeism. *American Journal of Health Promotion*. 1996, September-October;11(1):54-61.

Jaffe, R. The Female Athlete. *Del Medical Journal*. 1987;59(9):583-590.

Jandorf, L., Deblinger, E., Neale, J.M. & Stone, A.A. Daily Versus Major Life Events as Predictors of Symptom Frequency: A Replication Study. *The Journal of General Psychology*. 1982;113(3):205-218.

James, G.D., Cates, E.M., Pickering, T.G., Laragh, J.H. Parity and Perceived Job Stress Elevate Blood Pressure in Young Normotensive Working Women. *American Journal of Hypertension*. 1989;2:637-639.

- Jenkinson, C., Layte, R. Development and Testing of the UK SF12. *Journal of Health Services Research Policy*. 1997, Jan;2(1):14-18.
- Jennings, BM. Stress, Locus of Control, Social Support, and Psychological Symptoms among Head Nurses. *Research in Nursing and Health*. 1990;13:393-401.
- Jensen, P.S., Xenakis, S.N., Wolf, P., Bain, M.W. The Military Family Syndrome Revisited: By the Numbers. *Journal of Nervous and Mental Disease*. 1991;179(2):102-107.
- Jensen, T.D., White, D.D., Singh, R. Impact of Gender, Hierarchical Position, and Leadership Styles on Work-related Values. *Journal of Business Research*. 1990;20:145-152.
- Jette, M., Sidney, K., Kimick, A. Effects of Basic Training on Canadian Forces Recruits. *Canadian Journal of Sports Science*. 1989;14(3):164-172.
- Jex, S.M. *Stress and Job Performance: Theory, Research, and Implications for Managerial Practice*. Thousand Oaks, CA: Sage Publications, 1998.
- Johansson, G.C., Laakso, M.L., Peder, M., Karonen, S.L. Examination Stress Decreases Plasma Level of Luteinizing Hormone in Male Students. *Psychosomatic Medicine*. 1988;50:286-294.
- Johansson, G.C., Laakso, M.L., Peder, M., Karonen, S.L. Endocrine Patterns Before and After Examination Stress in Males and Females. *Active Nervous Super*. 1989;31(2);81-87.
- Johansson, G.C., Laakso, M.L., Peder, M., Karonen, S.L. Initially high plasma prolactin levels are depressed by prolonged psychological stress in males. *International Journal of Psychophysiology*. 1990;9:195-199.
- Johnson, J.A., Coons, S.J. Comparison of the EQ-5D and SF-12 in an adult US Sample. *Quality of Life Research*. 1998;7:155-166.
- Jones, B.H., Knapik, J.J., Daniels, W.L., Toner, M.M. The energy of women and walking in shoes and boots. *Ergonomics*. 1986;29(3):439-443.
- Jones, T.V., Lindsey B.A., Yount, P., Soltys, R., Farani-Enayat. Alcoholism Screening Questionnaires: Are they valid in elderly medical outpatients? *Journal of Internal Medicine*. 1993, Dec;8:674-678.

## K

- Kahn, E.D., Robbins, L. Social-Psychological Issues in Sex Discrimination. *Journal of Social Issues*. 1985;41(4):135-154.

- Kales, Soldatos, and Kales. 1987. Sleep disorders: insomnia, sleepwalking, night terrors, nightmares, and enuresis. *Annals of Internal Medicine* 106:582-92.
- Kaminoff RO, Proshansky HM. Stress as a consequence of the urban physical environment. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects*. (pp. 380-409). New York: The Free Press; 1982.
- Kandel, D.B., Davies, M., Raveis, V.H. The stressfulness of daily social roles for women: marital, occupational and household roles. *Journal of Health & Social Behaviors*. 1985;26(1):64-78.
- Kanner, A.D., Coyne, J.C., Schaefer, C., Lazarus, R.S. Comparison of Two Modes of Stress Measurement: Daily Hassles and Uplifts Versus Major Life Events. *Journal of Behavioral Medicine*. 1981;4(1):1-39.
- Kaplan, G.A. Psychosomatic Research at the Margins of Mortality—War as a stressor. *Psychosomatic Medicine*. 1997;56:615.
- Karasek, R.A. Job Demands, job Decisions or Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*. June, 1979; 24; 285-308.
- Karasek, R. T., Gardell, B., Lindell, J. Work and non-work correlates of illness and behavior in male and female Swedish white collar workers. *Journal of Occupational Behaviour*. 1987;8:187-207.
- Kawahara, Y., Palinkas, L.A. Suicides in Active-Duty Enlisted Navy Personnel. *Suicide and Life-Threatening Behavior*. 1991, Fall;21(3):279-290.
- Keane, T. Post-traumatic stress disorder: Current status and future directions. *Behavior Therapy*. 1989;20(149-153).
- Keane TM, Gerard RJ, Lyons JA, Wolfe J. The interrelationship of substance abuse and posttraumatic stress disorder: Epidemiological and clinical considerations. In Galanter M (Ed.), *Alcoholism, Volume 6*. New York: Plenum Press; 1988.
- Kelly, K.E., Houston, B.K. Type A Behavior in Employed Women: Relation to Work, Marital, and Leisure Variables, Social Support, Stress, Tension, and Health. *Journal of Personality and Social Psychology*. 1985; 48(4):1067-1079.
- Kelley, M.L. The Effects of Military-Induced Separation on Family Factors and Child Behavior. *American Journal of Orthopsychiatry*. 1994, Jan;64(1):103-111.
- Kelley, M.L. Military-Induced Separation in Relation to Maternal Adjustment and Children's Behaviors. *Military Psychology*. 1994;6(3):163-176.
- Kelley, M.L., Herzog-Simmer, P.A., Harris, M.A. Effects of military- induced separation on the parenting stress and family functioning of deploying mothers. *Military Psychology*. 1994;6920:125-138.

- Kelner, M., Rosenthal, C. Postgraduate Medical Training, Stress, and Marriage. *Canadian Journal of Psychiatry*. 1986, Feb;31:22-24.
- Kessler, R.C., McGonale, K.A., Zhao, S., Nelson, C.B., Hughes, M., Eshleman, S., Wittchen, H. & Kendler, K.S. Lifetime and 12-Month Prevalence of DSM-III-R Psychiatric Disorders in the United States: Results from the National Comorbidity Survey. *Archives of General Psychiatry*. 1994, January;51:8-19.
- Kilic, C., Rezaki, M., Rezaki, B., Kaplan, I., Ozgen, G., Sagduyu, A., Ozturk, M.O. General Health Questionnaire (GHQ12 & GHQ28): psychometric properties and factor structure on the scales in a Turkish primary care sample. *Social Psychiatry Psychiatric Epidemiology*. 1997;32:327-331.
- Killien, M., Brown, M.A. Work and Family Roles of Women: Sources of Stress and Coping Strategies. *Health Care for Women International*. 1987;8(2/3):169-184.
- King, D.W., King, L.A., Foy, D.W., Gudanowski, D.M. Prewar Factors in combat-Related Posttraumatic Stress Disorder: Structural Equation Modeling with a National Sample of Female and Male Vietnam Veterans. *Journal of Consulting and Clinical Psychology*. 1996;64(3):520-531.
- King, D.W., King, L.A., Foy, D.W., Keane, T.M., Fairbank, J.A. Posttraumatic Stress Disorder in a National Sample of Female and Male Vietnam Veterans: Risk Factors, War-Zone Stressors, and Resilience-Recovery Variables. *Journal of Abnormal Psychology*. 1999;108(1):164-170.
- King, D.W., King, L.A., Gudanowski, D.M., Vreven, D.L. Alternative representations of war zone stressors: relationships to posttraumatic stress disorder in male and female Vietnam veterans. *Journal of Abnormal Psychology*. 1995;104(1):184-196.
- Kirk, J., Schneider, D.A. Physiological and perceptual responses to load-carrying in female subjects using internal and external frame backpacks. *Ergonomics*. 1992;35(4):445-455.
- Kocher, K.M. & Thomas, G.W. Retaining army nurses: A longitudinal model. *Research in Nursing & Health*. 1984;59-65.
- Koenig, H.G., George L.K., & Blazer, D.G. Abbreviating the Duke Social Support Index for Use in Chronically Ill Elderly Individuals. *Psychosomatics*. 1993, February;34(1):61-69.
- Koeter, M.W.J. Validity of the GHQ and SCL anxiety and depression scales: A comparative study. *Journal of Affective Disorders*. 1992;24:271-280.
- Kohn, P.M., McDonald, J.E. The Survey of Recent Life Experiences: A Decontaminated Hassles Scale for Adults. *Journal of Behavioral Medicine*. 1992;15(2):221-236.
- Kopjar, B. The SF-36 health survey: a valid measure of changes in health status after injury. *Injury Prevention*. 1996, Jun;2(2):135-9.

Koutedakis, Y., Sharp, C.C. Training of the female competitor: physiologic aspects of fitness. *British Journal of Special Medicine*. 1991;25(4):188-190.

Kressin, N.R., Skinner, K., Sullivan, L., Miller, D.R., Frayne, S., Kazis, L., Tripp, T. Patient satisfaction with Department of Veterans Affairs health care: do women differ from men? *Military Medicine*. 1999, Apr;164(4):283-288.

Kulka, R.A., Fairbank, J.A., Jordan, B.K., Weiss, D.S.. *Trauma and the Vietnam war generation*. Brunner/Mazel: New York; 1990.

Kushnir, T., Kasan, R. Major sources of stress among women managers, clerical workers, and working single mothers: demands vs. resources. *Public Health Review*. 1992/93;20:215-229.

## L

Lancaster, A.R. Department of Defense Sexual Harassment Research: Historical Perspectives and New Initiatives. *Military Psychology*. 1999;11(3):219-231.

Landerman, R., George, L.K., Campbell, R.T., Blazer, D.G. Alternative Models of the Stress Buffering Hypothesis. *American Journal of Community Psychology*. 1989;17(5):625-642.

Lakhani, H. Reenlistment Intentions of Citizen Soldiers in the U.S. Army. *Armed Forces & Society*. 1995, Fall;22(1):117-130.

Lawrence, C.L. Female police officers: Relationship between social support, occupational stress and strain. *Dissertation Abstracts International*. 1986;47(05-B):2171. (University Microfilms No. AAD86-16487).

Lazarus, R.S. & DeLongis, A. Psychological Stress and Coping in Aging. *American Psychologist*. 1983;245-254.

Lazarus, R.S., DeLongis, A., Folkman, S. & Gruen, R. Stress and Adaptational Outcomes. *American Psychologist*. 1985, July;40(7):770-779.

Lazarus, R., & Folkman, S. *Stress, appraisal, and coping*. New York: Springer; 1984.

Lee, T.W. & Maurer, S.D. The Effects of Family Structure on Organizational Commitment, Intention to Leave and Voluntary Turnover. *Journal of Managerial Issues*. 1999, Winter; XI(4):493-511.

Leiter, M.P., Clark, D., Durup, J. Distinct models of burnout and commitment among men and women in the military. *Journal of Applied Behavior Science*. 1994;30(1):63-82.

Lesserman, J., Zhiming, Li., Hu, Y.J.B. & Drossman, D.A. How multiple types of stressors impact on health. *Psychosomatic Medicine*. 1998;60:175-181.

- Lester, D. Depression, suicidal preoccupation and scores on the Rokeach Value Survey. *Psychology Report*. 1991;69-998.
- Linehan, M.M. Combining Pharmacotherapy with Psychotherapy for Substance Abusers with Borderline Personality Disorder: Strategies for Enhancing Compliance. [needs more reference information]. 129-142.
- Littman, A.B., Fava, M., Halperin, P., Lamon-Fava, S., Drews, F.R., Oleshansky, M.A., Bielenda, C.C., MacLaughlin, R.A. Physiologic benefits of a Stress Reduction Program for Healthy Middle-Aged Army Officers. *Journal of Psychosomatic Research*. 1993;37(4):345-354.
- Locke, E.A. 1983. The nature and causes of job satisfaction. In *Handbook of industrial and organizational psychology*, M.D. Dunnette, editor. New York: Wiley.
- Loveland-Cherry, C.J., Youngblut, J.M., Kline, Leidy, N.W. A psychometric analysis of the Family Environment Scale. *Nursing Research*. 1989, Sep-Oct;38(5):262-266.
- Lowe, G.S., Northcott, H.C. The Impact of Working Conditions, Social Roles, and Personal Characteristics on Gender Differences in Distress. *Work and Occupation*. 1988, Feb, 15(1):55-77.
- Lundberg L., Johannesson, M., Isacson, D.G.L., Borgquist, L. The relationship between health-state utilities and the SF-12 in a general population. *Medical Decision Making*. 1999, Apr-Jun;19(2):128-140.
- Lykouras, L., Adrachta, D., Kalfakis, N., Oulis, P., Volgari, A., Christodoulou, G.N., Papageorgiou, C., Stafanis, C. GHQ-28 as an aid to detect mental disorders in neurological inpatients. *Acta Psychiatria Scandinavica*. 1996;93:212-216.
- Lyons, R.A., Wareham, K., Lucas, M., Price, D., Williams, J., Hutchings, H.A. SF-36 scores vary by method of administration: implications for study design. *Journal of Public Health Medicine*. 1999, Mar;21(1):41-45.
- Lyons, T.J. Women in the Military Cockpit. *Occupational and Environment Health Directorate*, Brooks Air Force Base, Texas. June, 1991, AL-TR-1991-0068.

# M

MacKenzie, D.M., Langa, A. & Brown, T.M. Identifying hazardous or harmful alcohol use in medical admissions: A comparison of audit, cage and brief mast. *Alcohol & Alcoholism*. 1996;31(6):591-599.

Magann, E.F. & Nolan, T.E. Pregnancy Outcomes in an Active-Duty Population. *Obstetrics gynecology*. 1991, September;78(3, Part 1):391-393.

Magley, V.J., Waldo, C.R, Drasgow, F., Fitzgerald, L.F. The impact of sexual harassment on military personnel: Is it the same for men and women? *Military Psychology*. 1999;11(3):283-302.

Magruder-Habib, K., Stevens, H.A., Alling, W.C. Relative performance of the MAST, VAST, and CAGE versus DSM-III R criteria for alcohol dependence. 1993, May;46(5):435-441.

Maoz, B., Mark, M., Ribak, J., Rabinowitz, S., Antonosky, H., Kotler, M. Physicians' Detection of Psychological Distress in Primary-Care Clinics. *Psychological Reports*. 1991;69:999-1003.

Markenson, G., Raez, E. Female Health Care during Operation Desert Storm: The Eighth Evacuation Hospital Experience. *Military Medicine*. 1992, Nov;157:610-613.

Marsden, M.A. Sex-Role Attributes, Mental Health, and Job Satisfaction among Enlisted Army Women in Traditional and Nontraditional Military Units. *National Journal of Sociology*. 1991;5(1):81-89.

Martin, HP. The Integration of women in the military: A preliminary investigation of relevant factors. *Dissertation Abstracts International*. 1987, November;48(5)1550-B.

Martin, J.K., Blum, T.C., Roman, P.M. Drinking to cope and self-medication: Characteristics of jobs in relation to worker's drinking behavior. *Journal of Organizational Behavior*. 1992;13:55-71.

Martin, J.K., Hanson, S.L. Sex, family wage-earning status, and satisfaction with work. *Work and Occupations*. 1985;12(1):91-109.

Martin, J.K., Roman, P.M. Job satisfaction, job reward characteristics, and employees' problem drinking behaviors. *Work and Occupations*. 1996, February;23(1):4-25.

Martin, J.K., Roman, P.M., Blum, T.C. Job stress, drinking networks, and social support at work: A comprehensive model of employees' problem drinking behavior. *Sociological Quarterly*. 1996, ;37(4):579-599.

Martindale, M. 1990. *Sexual harassment in the military: 1988*. Arlington, Virginia: Defense Manpower Data Center.

- Maslach, C., Jackson, S.E. The role of sex and family variables in burnout. *Sex Roles*. 1985;12:837-851.
- Mastekaasa, A. & Olsen, K.M. Gender, absenteeism, and job characteristics. *Work and Occupations*. 1998, May;25(2):195-228.
- Matteo, S. The Effect of Job Stress and Job Interdependency on Menstrual Cycle Length, Regularity and Synchrony. *Psychoneuroendocrinology*. 1987;12(6):467-476.
- Mayhew, J.L., Salm, P.C. Gender differences in anaerobic power tests. *European Journal of Applied Physiology*. 1990;60:133-138.
- Mays, V.M., Coleman, L.M. & Jackson, J.S. Perceived race-based discrimination, employment status, and job stress in a national sample of black women: implications for health outcomes. *Journal of Occupational Health Psychology*. 1996;1(3):319-329.
- Maxine, S. *Women after war: Vietnam experiences and post-traumatic stress: Contributions to social adjustment problems of Red Cross Workers and military nurses*. Dissertation, Simmons College of Social Work, 1992.
- McCabe, C.J., Thomas, K.J., Brazier, J.E., Coleman, P. Measuring the mental health status of a population: a comparison of the GHQ-12 and the SF-36 (MHI-5). *British Journal of Psychiatry*. 1996, Oct;169(4):516-521.
- McCarroll, J.E., Ursano, R.J., Fullerton, C.S., & Lundy, A. Traumatic stress of a wartime mortuary: Anticipation of exposure to mass death. *Journal of Nervous Mental Disorders*. 1993;181(9):545-551.
- McCarroll, J.E., Ursano, R.J., Ventis, W.L., Fullerton, C.S., Oates, G.L., Friedman, H., Shean, G.D., Wright, K.M. Anticipation of handling the dead: Effects of gender and experience. *British Journal of Clinical Psychology*. 1993;32:466-468.
- McDonald, R.A. *Women in Combat: When the Best Man for the Job is a Woman*. Air War College Research Report, Air University, United States Air Force, Maxwell Air Force Base, Alabama, 1991.
- McFall, M.E., MacKay, P.M., Donovan, P.M.. Combat-Related Posttraumatic Stress Disorder and Severity of Substance Abuse in Vietnam Veterans. *Journal of Studies on Alcohol*. 1992; 53(4):357-363.
- McHorney, C.A., Ware, J.E. Construction and validation of an alternate form general mental health scale for the Medical Outcomes Study. *Medical Care*. 1995, Jan;33(1):15-28.
- McNeary, A.M. & Lomenick, T.S. Military Duty: Risk Factor for Preterm Labor? A Review. *Military Medicine*. 2000, August;165:612-615.
- McTavish, D.G. Scale Validity: A computer content analysis approach. *Social Science Computer Review*. 1997, Winter;15(4):379-393.

- Meehl, P. Schizotaxia, schizotypy, schizophrenia. *American Psychology*. 1962;17:827-838.
- Meleis, A.I., Norbeck, J.S., Laffrey, S.C. Role Integration and Health among Female Clerical Workers. *Research in Nursing and Health*. 1989;12:355-364.
- Messersmith-Heroman, K., Heroman, W.M., Moore, T.R. Pregnancy outcome in military and civilian women. *Military Medicine*. 1994, Aug, 159(8):577-579.
- Messineo, T.D., Adams, W.C. Ozone inhalation effects in females varying widely in lung size: comparison with males. *Journal of Applied Physiology*. 1990;69(1):96-103.
- Michaels, A.J., Michaels, C.E., Smith, J.S., Moon, C.H., Peterson, C., & Long, W.B. Outcomes from Injury: General Health, Work Status, and Satisfaction 12 months after Trauma. *The Journal of Trauma; Injury, Infection and Critical Care*. 2000, May;48(5):841-850.
- Michaels, A.J. Michaels, C.E., Moon, C.H., Smith, J.S., Zimmerman, MA., Taheri, P., & Peterson, C. Posttraumatic Stress Disorder after injury: impact on general health outcome and early risk assessment. *The Journal of Trauma; Injury, Infection and Critical Care*. 1999, September;47(3):460-467.
- Miller, LA. Not just weapons of the weak: Gender harassment as a form of protest for Army men. *Social Psychology Quarterly*. 1997;60(1):32-51.
- Milroy, R. Observations on stress reactions as seen in Naval Reserve Fleet Hospital training evolutions. *Military Medicine*. 1991, Apr;156(4):166-168.
- Misner, T.R., Bell, M.R., O'Brien, D.E. *Health Status of Women in the Army*. Fort Sam Houston, TX, Health Services Command, U.S. Army Health Care Studies and Clinical Investigation Activity; 1987.
- Mitchell J.T. & Everly, Jr., G.S. Critical Incident Stress Debriefing (CISD) and the Prevention of Work-Related Traumatic Stress among High Risk Occupational Groups. *Psychotraumatology*. Everly, Jr., G.S. & Lating, J.M. New York, New York: Plenum Press, 1995.
- Moaz, B., Mark, M., Ribak, J., Rabinowitz, S., Antonovsky, H., Kotler, M. Physicians detection of psychological distress in primary-care clinics. *Psychological Reports*. 1991;69:999-1003.
- Montgomery, I., Trinder, J., Paxton, S., Harris, D., Fraser, G., Colrain, I. Physical exercise and sleep: the effect of the age and sex of the subjects and type of exercise. *ACTA Physiologica Scandinavica*. 1988:133 Supplementum 574:36-40.
- Moore, B.L. African-American women in the U.S. military. *Armed Forces & Society*. 1991;17(3):363-384

Moos, R.H. Conceptual and Empirical Approaches to Developing Family-Based Assessment Procedures: Resolving the Case of the Family Environment Scale. *Family Process*. 1990, Jun;29:199-208.

Morgan, C.A., Hill, S., Fox, P., Kingham, P. & Southwick, S.M. Anniversary Reactions in Gulf War Veterans: A Follow-up Inquiry 6 Years after the War. *American Journal of Psychiatry*. 1999, July;156(7):1075-1079.

Morton, J.L., Jones, T.V., Manganaro, M.A. Performance of alcoholism screening questionnaires in elderly veterans. *American Journal of Medicine*. 1996, Aug;101(2):153-159.

Moskos, C.C., and F.R. Wood, editors. 1988 *The military: More than just a job?* Washington, DC.: Pergamon-Brassey.

Muntaner, C., Anthony, J.C., Crum, R.M., Eaton, W.E. Psychosocial Dimensions of Work and the Risk of Drug Dependence among Adults. *American Journal of Epidemiology*. 1995;142(2):183-190

Murdoch, M., McGogern, P.G. Measuring sexual harassment: Development and validation of the sexual harassment inventory. *Violence and Victims*. 1998; 13(3):203-216.

Murdoch, M., Nichol, K.L. Women Veterans Experiences with Domestic Violence and With Sexual Harassment While in the Military. *Archives of Family Medicine*. 1995, May;4:411-418.

Myers, L.W. Military Stress: Work involvement and perceived job performance. *National Journal of Sociology*. 1991, Spring;5(1):63-79.

## N

Nathanson, C.A. Illness and the feminine role: A theoretical view. *Social Science Medicine*. 1975;9:57-62.

Naylor, S.D., Walker, P.V. Army makes new rules for women. *Army Times*. 1994, August;3:13.

Nelson, D.L., Quick, J.C., Hitt, M.A. Men and Women of the Personnel Profession: Some Differences and Similarities in Their Stress. *Stress Medicine*. 1989;145(5):145-152.

Newell, C.E., Rosenfeld, P., & Culbertson, A.L. Sexual Harassment Experiences and Equal Opportunity Perceptions of Navy Women. *Sex Roles*. 1995;32(3/4):159-168.

Nice, D.S. & Hilton, S. Sex differences and occupational influences on health care utilization abroad U.S. Navy ships. *Military Psychology*. 1994; 6(2):109-123.

Nice, F.J. Professional and Organizational Values of Male and Female US Public Health Service Commissioned Officers. *Military Medicine*. 1994, Nov;159:693-698.

Niles, S.G., Anderson, W.P. Career Development and Adjustment: The Relation Between Concerns and Stress. *Journal of Employment Counseling*. 1993, Jun;30:79-87.

Norman., E.M. Post-traumatic stress disorder in military nurses who served in Vietnam during the war years 1965-1973. *Military Medicine*. 1988;153(5):238-242.

Norwood, A.E., Gabbay, F.H. & Ursano, R.J. Health Effects on the Stressors of Extreme Environments on Military Women. *Military Medicine*. 1997, October;162(10):643-648.

Norwood, S.L. The Social Support Apgar: Instrument development at testing. *Research Nursing Health*. 1996, Apr;19(2):143-152.

Nowack, K.M. Initial Development of an Inventory to Assess Stress and Health Risk. *American Journal of Health Promotion*. 1990, Jan/Feb;4(3):173-180.

## O

Osterling, A., Berglund, M., Nilsson, L.H., Kristenson, H. Sex differences in response style to two self-report screening tests on alcoholism. *Scandinavian Journal of Social Medicine*. 1993, Jun;21(2):83-89.

Ott, E.M. Effects of the Male-Female Ratio at Work. *Psychology of Women Quarterly*. 1989;13:41-57.

Ott J. Women Vietnam Veterans. In Sonnenberg SM, Blank AS, Talbott JA (Eds.), *The trauma of war: Stress and recovery in Vietnam veterans*. Washington, DC: American Psychiatric Press Inc.; 1985.

Quimette, P.C., Wolf, J. & Chrestman, K.R. Characteristics of Posttraumatic stress disorder-alcohol abuse comorbidity in women. *Journal of Substance Abuse*. 1996;8(3):353-346.

Owen, T.R. The reliability and validity of a wellness inventory. *American Journal of Health Promotion*. 1999, Jan-Feb;13(3):180-2.

# P

- Parker, C. W. *An Examination of the Interrelationships Between Perceptions of Support, Job Attitudes, and Work Outcomes of Enlisted Army Soldiers*. A Dissertation submitted to the Graduate Faculty of George Mason University, Fairfax, VA. 1998.
- Parkerson, G.R., Jr, Broadhead, W.E., Chiu-Kit, J.T. Validation of the Duke Social Support and Stress Scale. *Family Medicine*. 1991, Jul;23(5):357-360.
- Parkerson, G.R. Jr, Broadhead, W.E., Chiu-Kit J.T. Perceived family stress as a predictor of health-related outcomes. *Archives of Family Medicine*. 1995, Mar;4(3):253-260.
- Parkerson, G.R. Jr., Michener, J.L., Wu, L.R., Finch, J.N., Muhlbaier, L.H., Magruder-Habib, K., Kertesz, J.W., Clapp-Channing, N., Morrow, D.S., A.L.T, Jokerst, E. Associations among family support, family stress, and personal functional health status. *Journal of Clinical Epidemiology*. 1989;42(3):217-29.
- Paul, E.A. & O'Neill, J. "American nurses in Vietnam: Stressors and aftereffects. *American Journal of Nursing*. 1986;86(5):526.
- Paykel, E.S., Prusoff, B.A., & Ulenhuth, E.H. Scaling of life events. *Archives of General Psychiatry*. 1971;25:340-347.
- Peebles-Kleiger, M.J., Kleiger, J.H. Re-Integration for Desert Storm Families: Wartime Deployments and Family Trauma. *Journal of Traumatic Stress*. 1994;7(2):173-194.
- Perconte, S.T., Wilson, A.T., Pontius, E.B., Dietrick, A.L., Spiro, K.J. Psychological and War Stress Symptoms among Deployed and Non-Deployed Reservists following the Persian Gulf War. *Military Medicine*. 1993, Aug;158:516-521.
- Perkins, D.V. The assessment of stress using life events scales. In L. Goldberger and S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 320-331). New York: The Free Press; 1982.
- Pittman, J.F., Orthner, D.K. Gender differences in the prediction of job commitment. *Journal Social Behavior Personality*. 1988;3(4):227-248.
- Pierce, P.F. 1998. Retention of Air Force women serving during Desert Shield and Desert Storm. *Military Psychology* 10 (3):195-213.
- Pokorny, A.D., Miller, B.A., Kaplan, H.B. The Brief MAST: A shortened version of the Michigan Alcoholism Screening Test. *American of Journal Psychiatry*. 1972, Sep;129(3):342-345.
- Pretty, G.M.H, McCarthy, M.E., Catano, V.M. Psychological environments and burnout: Gender considerations within the corporation. *Journal of Organizational Behavior*. 1990;13:701-711.

Pryor, J.B. The Psychosocial Impact of Sexual Harassment on Women in the Military. *Basic and Applied Social Psychology*. 1995;17(4):581-603.

## R

Rabb, D.D., Baumer, R.J., Wiesler, N.A. Counseling Army Reservists and Their Families During Operation Desert Shield/Storm. *Community Mental Health Journal*. 1993, Oct;29(5):441-447.

Radosevich, D.M., Husnik, M.J. An Abbreviated Health Status Questionnaire: The HSQ-12. Update: *The Newsletter of the Health Outcomes Institute*. 1995, Winter;2(1):1-4.

Radosevich, D.M., Pruitt, M.J.H. HSQ-12 Cooperative Validation Project: Phase I Reliability, Validity, and Comparability. Update: *The Newsletter of the Health Outcomes Institute*. 1995, Fall;1(4):3.

Rahim, M.A. Moderating Effects of Hardiness and Social Support on the Relationships of Conflict and Stress to Job Burnout and Performance. [need more information on this one]

Raina, P., Bonnett, B., Walther-Toews, D., Woodward, C., Abernathy, T. How reliable are selected scales from population-based health surveys? An analysis among seniors. *Canadian Journal of Public Health*. 1999, Jan-Feb;90(1):60-64.

Randolph, S.A. Stress, Working Women, and an Occupational Stress Model. *Occupational Health Nursing*. 1984;32(12):622-625.

Rappaport, J. Empowerment Meets Narrative: Listening to Stories and Creating Settings. *American Journal of Community Psychology*. 1995;23(5):795-807.

Ravella, P.C. A survey of U.S. Air Force flight nurses' adaptation to service in Vietnam. *Aviation, Space and Environmental Medicine*. 1995, January;66:80-83.

Redman, S., Webb, G.R., Hennrikus, D.J., Gordon, J.J., Sanson-Fisher, R.W. The effects of gender on diagnosis of psychological disturbance. *Journal of Behavioral Medicine*. 1991, Oct;14(5):527-540.

Reich, W.P., Parrella, D.P., Filstead, W.J. Unconfounding the Hassles Scale: External Sources versus Internal Responses to Stress. *Journal of Behavioral Medicine*. 1988;11(3):239-249.

Reinberg, A.E., Bicakova-Rocher, A., Gorceix, A., Ashkenazi, I.E., & Smolensky, M.H. Placebo Effect on the Circadian Rhythm Period of (SYMBOL) Temperature and Hand-Grip Strength Rhythms: Interindividual and Gender-Related Difference. *Chronobiology International*. 1994;11(1):45-53.

- Ren, X.S., Skinner, K., Lee, Austin, & Kazis, L. Social support, social selection and self-assessed health status: results from the veterans health study in the United States. *Social Science & Medicine*. 1999;48:1721-1734.
- Resnick, H.S., Best, C.L., Kilpatrick, D.G., Freedy, J.R., Falsetti, S.A. *Trauma assessment for adults*; 1993.
- Revicki, D.A., Wu, A.W., & Murray, M.I.. Change in clinical status, health status, and health utility outcomes in HIV-infected patients. *Medical Care*. 1995;33(4, Supplement):AS173-82.
- Richman, J.A., Flaherty, J.A. Gender Differences in Medical Student Distress: Contributions of Prior Socialization and Current Role-Related Stress. *Social Science Medicine*. 1990;30(7):777-787.
- Rindfuss, R.R., Stephen, E.H. Marital noncohabitation: separation does not make the heart grow fonder. *Journal of Marriage and the Family*. 1990;52:259-270.
- Robinson, G.E., Stewart, D., Borsook, C. The Woman Psychiatrist in Residency and Practice. *Psychological Journal of University of Ottawa*. 1986;11(1):10-14.
- Robson, S. Women at Work. *The Practitioner*. 1992, Feb;236:133-137.
- Romans-Clarkson, S.E., Walton, V.A., Herbison, G.P., Mullen, P.E. Psychiatric Morbidity among Women in Urban and Rural New Zealand: Psycho-social Correlates. *British Journal of Psychiatry*. 1990;156:84-91.
- Roosa, M.W., Beals, J. Measurement issues in family assessment: the case of the Family Environment Scale. *Family Process*. 1990, Jun;29(2):191-198.
- Rosen, L.N. & Evans, M.A. Demographic and Psychological risk factors for preterm delivery in an active duty pregnant population. *Military Medicine*. 2000;165(1):49-53.
- Rosen, L.N., Martin, L. Childhood maltreatment history as a risk factor for sexual harassment among U.S. Army soldiers. *Violence and Victims*. 1998;13(3):269-286.
- Rosen, L.N., Martin, L. Predictors of tolerance of sexual harassment among male U.S. Army soldiers. *Violence Against Women*. 1998;4(4):491-504.
- Rosen, L.N., Martin, L. Psychological effects of sexual harassment, appraisal of harassment, and organizational climate among U.S. Army Soldiers. *Military Medicine*. 1998;163(2):63-67.
- Rosen, L.N., Martin, L. The Measurement of Childhood Trauma among Male and Female Soldiers in the US Army. *Military Medicine*. 1996 Jun;161:342-345.
- Rosen, L.N., Martin, L. Incidence and perceptions of sexual harassment among male and female U.S. Army soldiers. *Military Psychology*. 1998;10(4):239-257.

- Rosen, L.N.; Wright, K., Marlowe, D., Bartone, P., Gifford, R.K. Gender differences in subjective distress attributable to anticipation of combat among U.S. Army soldiers deployed to the Persian Gulf during Operation Desert Storm. *Military Medicine*. 1999;164(11):753-757.
- Rosenfeld, P. Effects of gender and ethnicity on Hispanic women in the U.S. Navy. *The Journal of Social Psychology*. 134(3):349-354.
- Rosenman, R.H. The interview method of assessment of the coronary-prone behavior pattern. In Dembroski, T.M., Weiss, S.M., Shields, J.L., Haynes, S.G., Feinleib, M. (Eds.), *Coronary-prone Behavior*. New York: Springer-Verlag; 1978. (pp. 55-69).
- Rospenda, K.M., Halpert, J., Richman, J.A. Effects of Social Support on medical Students Performances. *Academic Medicine*. 1994;69(6):496-500.
- Ross, M.C. & Wonders, J. An Exploration of the Characteristics of Post-Traumatic Stress Disorder in Reserve Forces Deployed During Desert Storm. *Archives of Psychiatric Nursing*. 1993, Oct;7(5):265-269.
- Rossi, A.M. & Lubbers, C.A. Stressed at Work: Identification of Physiological Responses to Occupational Stressors. *AAOHN Journal*. 1989, Jul;37(7):258-264.
- Rudestam, J.R. Sex differences in personality and social support resources for resisting the impact of work-related stress. *Dissertation Abstracts International*. 1985;46(08-B):2873.
- Ruffin, C.L. Stress and health: Little hassles vs. major life events. *Australian Psychologist*. 1993;28:201-208.
- Russell, D.E.H.. *The secret trauma: Incest in the lives of girls and women*. New York: Basic Books; 1986.
- Russell, M., Davey, G.C.L. The relationship between life event measures and anxiety and its cognitive correlates. *Personal Individual Differences*. 1993;14(2):317-322.
- Ryan-Wenger, N.M. Physical and psychosocial impact of activation and deactivation on Army Reserve nurses. *Military Medicine*. 1992;157(9):447-452.

## S

- Saroja, K. I., K. Kasmini, S. Muhamad, and G. Zulkifli. 1995. Relationship of stress, experienced by rescue workers in the highland towers condominium collapse to probably risk factors—a preliminary report. *Medical Journal of Malaysia* 50(4):326-329.
- Samler, J.D. Reserve Unit Mobilization Trauma. *Military Medicine*. 1994, Oct;159:631-635.

- Savery, L.R. & Wooden, M. The Relative Influence of Life Events and Hassles on Work-Related Injuries: Some Australian Evidence. *Human Relations*. 1994;47(3):283-307.
- Schafer, J.L. 1997. *Analysis of incomplete multivariate data*. New York: Chapman and Hall.
- Schei, E. 1994. A strengthening experience? Mental distress during military service: a study of Norwegian army conscripts. *Social Psychiatry and Psychiatric Epidemiology* 29(1):40-45.
- Schmied, L.A., Lawler, K.A. Hardiness, Type A Behavior, and the Stress-Illness Relation in Working Women. *Journal of Personality and Social Psychology*. 1986;51(6):1218-1223.
- Schnaier, J.A. A study of women Vietnam veterans and their mental health adjustment. In Figley, C.R. (Ed.), *Trauma and its wake. Vol. II: Traumatic stress theory, research, and intervention*. New York: Brunner/Mazel; 1986.
- Schonfeld, I.S. A Longitudinal Study of Occupational Stressors and Depressive Symptoms in First-Year Female Teachers. *Teaching and Teacher Education*. 1992;8(2):151-158.
- Schumm, W.R., Bell, D.B., Palmer-Johnson, C.E., Tran, G. Gender trends in the U.S. Army and a discussion of implications for readiness and retention. *Psychology Report*. 1994;74:499-511.
- Schumm, W.R., Jurich, A.P., Stever, J.A., Sanders, D., Castelo, C., & Bollman, S.R. Attitudes of Reserve Component Service members Regarding the Consequences of Frequent Overseas Deployments. *Psychological Reports*. 1998;83:983-989.
- Scott, B. & Melin, L. Psychometric properties and standardized data for questionnaires measuring negative affect, dispositional style and daily hassles. A nation-wide sample. *Scandinavian Journal of Psychology*. 1998;39:301-307.
- Scott, P.A. The Perceived Strain Scale (PSS) Part I: Conceptual Model. *International Journal of Sport Psychology*. 1994;22:381-395.
- Scurfield, R.M., Tice, S.N. Interventions with medical and psychiatric evacuees and their families. From Vietnam through the Gulf War. *Military Medicine*. 1992;157(2):88-97.
- Selzer, M.L. The Michigan Alcoholism Screening Test: The Quest for a New Diagnostic Test. *American Journal of Psychiatry*. 1971, Jun;127(12):89-94.
- Seyle H. *The stress of life*. New York: McGraw-Hill; 1956, 1976.
- Shalit, B. Strategies of Change leading to Equity Between Men and Women with Specific Implications for the Military Organization. *Human Relations*. 1978;31(4):309-324.
- Shrier, D.K. Sexual Harassment and Discrimination: Impact on Physical and Mental Health. *New Jersey Medicine*. 1990, February;87:105-107.

- Simon, R.W. Parental role strains, salience of parental identity and gender differences in psychological distress. *Journal of Health & Social Behavior*. 1992;33(1):25-35.
- Slusarcick, A.L., Ursano, R.J., Fullerton, C.S. & Dinneen, M.P. Stress and Coping in Male and Female Health Care Providers during the Persian Gulf War: The USNS Comfort Hospital Ship. *Military Medicine*. 1999;164(3):166-173.
- Smith, D.A., Sylvester S.D., Villa, Christine M. *Army Reenlistment*.
- Smith, D.S., Collins, M., Kreisberg, J., Volpicelli, J.R. & Alterman, A.I. Screening for problem drinking in college freshman. *College Health*. 1987, September;36:89-94.
- Snapp, M.B. Occupational Stress, Social Support, and Depression Among Black and White Professional-Managerial Women. *Women & Health*. 1992;18(1):41-79.
- Snizek, W.E., Neil, C.C. Job Characteristics, Gender Stereotypes and Perceived Gender Discrimination in the Workplace. *Organization Studies*. 1992;13(3):403-427.
- Solomon, Z., Waysman, M., & Milulincer, M. Family functioning, perceived societal support, and combat-related psychopathology: The moderating role of loneliness. *Journal of Social and Clinical Psychology*. 1990;9(4):456-472.
- Solomon, Z. Does the war end when shooting stops? A psychological toll of war. *Journal of Applied Social Psychology*. 1990;20(21):1733-1745.
- Solomon, Z., Mikulincer, M., Avitzur, E. Coping, locus of control, social support, and combat related posttraumatic stress disorder: a prospective study. *Journal of Personal & Social Psychology*. 1988, Aug;55(2):279-85.
- Solomon, Z., Mikulincer, M., Hobfoll, S.E. Effects of social support and battle intensity on loneliness and breakdown during combat. *Journal of Personal & Social Psychology*. 1986, Dec;51(6):1269-1276.
- Spaccarelli, S. Stress, appraisal, and coping in child sexual abuse: A theoretical and empirical review. *Psychological Bulletin*. 1994;116(2):340-362.
- Spelten, E., J. Barton, and S. Folkard. Have we underestimated shiftworkers' problems? Evidence from a "reminiscence" study. *Ergonomics*. 1993;36(1-3):307-312.
- Spielberger, C.D., and E.C. Reheiser. The job stress survey: measuring gender differences in occupational stress. *Journal of Social Behavior and Personality*. 1994; 9(2):199-218.
- Spiro, A., Schnurr, P.P., & Aldwin, C.M. *A life-span perspective on the effects on military service*.
- Splonskowski, J.M., Twiss, J.J. Maternal coping adaptations, social support, and transition difficulties to parenthood of first-time civilian and military mothers. *Military Medicine*. 1995, Jan;160(1):28-32.

- St. Pierre, M. Accession and Retention of Minorities. *International Journal of Intercultural Relations*. 1991;15:469-489
- Stanley, S.C., Segal, M.W. Military Women in NATO: An Update. *Armed Forces and Society*. 1988, Sum;14(4):559-585.
- Stansfeld, S.A., Roberts, R., Foot, S.P. Assessing the validity of the SF-36 General Health Survey. *Quality of Life Research*. 1997; 6: 217-224.
- Steen, N., Firth, H.W.B., & Bond, S. Relation Between Work Stress and Job Performance in Nursing: A Comparison of Models. *Structural Equation Modeling*. 1998;5(2):125-142.
- Stellman, J.M.. *Women's work, women's health: Myths and Realities*. New York: Pantheon Books; 1977.
- Stephens, M.A.P., Townsend, A.L. Stress of parent care: Positive and negative effects of women's other roles. *Psychological Aging*. 1997, Jun;12(2):376-386.
- Stephenson, L.A., Kolka, M.A. Thermoregulation in Women. *Exercise & Sport Science Review*. 1993;21:231-262.
- Stephens, A., Cropley, M., & Joeekes, K. Job Strain, blood pressure and response to uncontrollable stress. *Journal of Hypertension*. 1999;17(2):193-200.
- Stevens, G.H.J, Graham, T.E., Wilson, B.A. Gender Differences in cardiovascular and metabolic responses to cold and exercise. *Canadian Journal of Physiological & Pharmacological*. 1987;65(2):165-171.
- Stewart, A.L., Hays, R.D., Ware Jr, J.E. The MOS short-form general health survey. Reliability and validity in a patient population. *Medical Care*. 1988, Jul;26(7):724-735.
- Stewart, A.L., Hayes, R.D., Ware Jr, J.E. In *Health Concept Methods*. Methods of Constructing Health Measures, 1996:67-85.
- Stewart, A.L., Ware Jr., J.E. *Measuring Functioning and Well-Being: The Medical Outcomes Study Approach*. Duke University Press, Durham & London. 1992;235-259.
- Stewart, J.A. & Halverson, R.R. The Psychological Status of U.S. Army Soldiers during Recent Military Operations. *Military Medicine*. 1997;162(11):737-743.
- Stewart J.G. & Firestone, J.M. Looking for a few good men: Predicting patterns of retention, promotion, and accession of minority and women officers. *American Journal of Economics and Sociology*. 1992, October;51(4):435-458.
- Stewart, W. & Barling, J. Daily work stress, mood and interpersonal job performance: a mediational model. *Work & Stress*. 1996;10(4):336-351.

Stiehm, J.H. Army opinions about women in the Army. *Gender Issues* (DK volume, 1998, Summer):88-98.

Stress tops list of workplace hazards affecting women. *The Maryland Nurse*. 1989 (April);8(3):1. Are there any authors?

Surtees, P.G., Tansella, M. The Interval General Health Questionnaire and its relationship with psychiatric disorder in the community and general practice samples. *British Journal Psychiatry*. 1990, Nov;157:683-93.

Sutker, P.B., Davis, J.M., Uddo, M., Ditta, S.R. Assessment of Psychological Distress in Persian Gulf Troops: Ethnicity and Gender Comparisons. *Journal of Personality Assessment*. 1995;64(3):415-427.

Sutker, P.B., Uddo, M., Brailey, K., Allain, A.N. & Errera, P. Psychological symptoms and psychiatric diagnoses in Operation Desert Storm troops serving graves registration duty. *Journal of Traumatic Stress*. 1994;7(2):159-171.

## T

Tam, L.W. Psychological aspects of pregnancy in the military: a review. *Military Medicine*. 1998, Jun;163(6):408-412.

Tennant, C., Andrews, G. A Scale to Measure the Stress of Life Events. *Australian & New Zealand Journal of Psychology*. 1976;10:27-32.

Tice, J. Women gain jobs, face more combat. *Army Times*. 1994, August:12.

Tijhuis, M.A., Flap, H.D., Foets, M., Groenewegen, P.P. Social support and stressful events in two dimensions: life events and illness as an event. *Social Science Medicine*. 1995, Jun;40(11):1513-23.

Thompson, L.M., Murphy, P., O'Hara, J. & Wallymahmed, A. Levels of daily hassles and uplifts in employed and non-employed pregnant women. *Journal of Reproductive and Infant Psychology*. 1997;15:271-280.

*The MHSIP: Consumer-Oriented Mental Health Report Card*. The Final Report of the Mental Health statistics Improvement Program (MHSIP) Task Force on a Consumer-Oriented Mental Health Report Card. 1996, April.

Towell, P. Study finds sexual harassment exists throughout Army. *Defense and Foreign Policy*. 1997, September;2162.

## U

Uden, A.L. Social support at work and its relationship to absenteeism. *Work & Stress*. 1996;10(1):46-61.

Ursano, R.J., McCarroll., J.E. Exposure to traumatic death: the nature of the stressor.

U.S. Department of the Army. Secretary of the Army's Senior Review Panel on Sexual Harassment. 1997. *The Secretary of the Army's Senior Review Panel report on sexual harassment*. Washington, DC: Department of the Army, Document No.101.2:SE 9/Volume 2.).

U.S. Department of Defense, Office of the Assistant Secretary of Defense (Personnel and Readiness). *Population*.

U.S. General Accounting Office. *Women in the military: Deployment in the Persian Gulf War*. Report to the Secretary of Defense. GAO/NSIAD-93-93. Washington, DC; July 1993.

## V

Van de Kamp, J., Ferguson, J.H. *Persian Gulf Experience and Health*. US Department of Health and Human Services, NIH, CBM 94-3, 1994.

Van Lange, P.A.M., Agnew, C.R., Harinck F., Steemers, G.E.M. From Game Theory to Real Life: How Social Value Orientation Affects Willingness to Sacrifice in Ongoing Close Relationships. *Journal of Personality and Social Psychology*. 1997;73(6):1330-1344.

Van Wijk, C. Factors influencing burnout and job stress among military nurses. *Military Medicine*. 1997, Oct;162(10):707-710.

Verbrugge, LM. Gender and health: An update on hypotheses and evidence. *Journal of Health & Social Behavior*. 1985;26:156-182.

Violanti, J.M. Coping Strategies Among Police Recruits in a High-Stress Training Environment. *The Journal of Social Psychology*. 1992, Dec;132(6):717-729.

Vincus, A.A., Ortstein, M.L., Lentine, D.A., Baird, T.O., Chen, J.C., Walker, J.A., Kavee, J.D. & Bray, R.M. *The health status of females and males in all segments of the U.S. Military*. Research Triangle Institute, Report RTI/06728/006-FR. October 1999.

Vinokur, A.D., Pierce, P.F., & Buick, C.L. Work-family conflicts of women in the Air Force: their influence on mental health and functioning. *Journal of Organizational Behavior*. 199;20:865-878.

Vitaliano, P.P., Russo, J., Weber, L., Celum, C. The Dimensions of Stress Scale: Psychometric Properties. *Journal of Applied Social Psychology*. 1993;23(22):1847-1878.

## W

Wagner, D., Heinrichs, M. & Ehlerst U. Prevalence of Symptoms of Posttraumatic Stress Disorder in German Professional Firefighters. *American Journal of Psychiatry*. 1998, December;155(12):1727-1732.

Waite, L.J., Berryman, S.E. Job Stability among Young Women: A Comparison of Traditional and Nontraditional Occupations. *American Journal of Sociology*. 1986, Nov:92(3):568-595.

Wandell, P., and J. Tovi. 2000. The quality of life of elderly diabetic patients. *Journal of Diabetes Complications* 14(1):25-30.

Ward, W. 1997. Psychiatric morbidity in Australian veterans of the United Nations peacekeeping force in Somalia. April;31(2):184-193

Ware, J.E. *SF36 health survey: Manual and interpretation guide*. Boston: New England Medical Center, The Health Institute; 1993.

Ware Jr., J.E., Kosinski, M., Keller, S.D. A 12-Item Short-Form Health Survey. *Medical Care*. 1996;34(3):220-233.

Ware Jr., J.E., Nelson, E.C., Sherbourne, C.D., Stewart, A.C. *Preliminary Tests of a 6-Item General Health Survey: A Patient Application*. Pp. 291-303.

Ware Jr., J.E., Sherbourne, C.D., Davies, A.R. *Developing and testing the MOS 20 Item short-form Health Survey: A General population application*. 276-290.

Warr, P., Cook, J., Wall, T. Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*. 1979;52:129-148.

Watanabe, H.K., Jensen, P.S., Rosen, L.N., Newby, J., Richters, J.E., CortLs RM. Soldier functioning under chronic stress: effects of family member illness. *Military Medicine*. 1995, Sep;160(9):457-461.

Weiss, D.S., Marmar, C.R., Metzler, T.J., Ronfeldt, H.M. Predicting Symptomatic Distress in Emergency Services Personnel. *Journal of Consulting and Clinical Psychology*. 1995;63(3):361-368.

Welte, J.W. & Mirand, A.L. Drinking, problem drinking and life stressors in the elderly general population. *Journal on Study of Alcohol*. 1995;56(1):67-73.

Werneke, U., Goldberg, D.P., Yalcin, I, Ustun, B.T. The stability of the factor structure of the General Health Questionnaire. *Psychological Medicine*. 2000;30:823-829.

West, L., Mercer, S.O., Altheimer, E. Operation Desert Storm: The Response of a Social Work Outreach Team. *Social Work in Health Care*. 1993;19(2):81-98.

Wexler, J.G., Logan, D.D. Sources of stress among women police officers. *Journal of Police Science Administration*. 1983;11:46-53.

Wilkins, K. & Beaudet M.P. Work stress and health. *Health Reports*. 1998, Winter;10(3):47-62.

Williford, H.N., Scharff-Olson, M., Blessing, D.L. Exercise Prescription for Women: Special Considerations. *Sports Medicine*. 1993;15(5):299-311.

Witt, L.A., Wilson, J.M. Breadwinning status as a moderator of the equity-job satisfaction relationship. *Psychology Report*. 1990;66:1361-1362.

Wolfe, J. Preliminary report on a reunion survey on Desert Storm returnees. In R. Rosenbeck et al. (Eds), *War-zone stress among returning Person Gulf troops. A preliminary report*. Legislative report to Congress; 1991.

Wolfe, J. Female military veterans and traumatic stress. *PTSD Research Quarterly*. 1993, Winter;4(1).

Wolfe, J., Brown, P.J., Bucsela, M.L. Symptoms Responses of Female Vietnam Veterans to Operation Desert Storm. *American Journal of Psychiatry*. 1992, May;149(5): 676-679.

Wolfe, J., Brown, P.J., Kelley, J.M. Reassessing War Stress: Exposure and the Persian Gulf War. *Journal of Social Issues*. 1993;49(4):15-31.

Wolfe, J., Mori, D., Krygeris, S. Treating Trauma in Special Populations: Lessons from Women Veterans. *Psychotherapy*. 1994, Spring;31(1):87-93.

Wolfe, J., Proctor, S.P. The Persian Gulf War: New Findings on Traumatic Exposure and Stress. *PSTD Research Quarterly*. 1996, Winter;7(1):1-3.

Wolfe, J., Schnurr, P.P., Brown, P.J., Furey, J. Posttraumatic stress disorder and war-zone exposure as correlates of perceived health in female Vietnam war veterans. *Journal of Consulting & Clinical Psychology*. 1994; 62(6):1235-1240.

Wolfe, J., Sharkansky, E.J, Read, J.P, Dawson, R., Martin, J.A., Ouimette, P.C. Sexual harassment and assault as predictors of PTSD symptomatology among U.S. female Persian Gulf War military personnel. *Journal of Interpersonal Violence*. 1998;13(1):40-57.

*Women in the Military*. General Accounting Office GAO/NSAID-93-93 July 1993.

Woods, G.J. *Women in the Infantry: The Effect on the Moral Domain*. A monograph for the School of Advanced Military Studies, United States Army Command and General Staff College, Fort Levenworth, Kansas, AY 92-93.

Wright, T.A., & Bonnett, D.G. The contribution of burnout to work performance. *Journal of Organizational Behavior*. 1997;18:491-499.

Wynd, C.A, Dziedzicki, R.E. Heightened Anxiety in Army Reserve Nurses Anticipating Mobilization during Operation Desert Storm. *Military Medicine*. 1992 , Dec;157(12):630-634.

Wynd, C.A., & Ryan-Wenger, N.A. The Health and Physical Readiness of Army Reservists: A Current Review of the Literature and Significant Research Questions. *Military Medicine*. 1998;163(5):283-287.

## Y

Yarney AD. *Understanding police and police work: Psychosocial issues*. New York: New York University Press; 1990.

Young, E.H. Relationship of residents' emotional problems, coping behaviors, and gender. *Journal of Medical Education*. 1987;62(8):642-650.

## Z

Zappert, L.T., Weinstein , H. M. Sex differences in the impact of work on physical and psychological health. *American Journal of Psychiatry*. 1985;142:1174-1178.

Zohar, D. When things go wrong: The effect of daily work hassles on effort, exertion and negative mood. *Journal of Occupational and Organizational Psychology*. 1999;72:265-283.

Zung, B.J. Modification of the Brief Michigan Alcoholism Screening Test. *Journal of Studies on Alcohol*. 1983;44(5):863-871.

Zung, B.J. Screening Alcohol Problems in Psychiatric Inpatients. *The Psychiatric Forum*. 1982, Summer-Fall;33-337.

Zubin, J., Spring, B. Vulnerability: A new view of schizophrenia. *Journal of Abnormal Psychology*. 1977;86:103-126.