Human Dimensions Assessment of the Task Force XXI Advanced Warfighter Experiment

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Scientists from the Walter Reed Army Institute of Research and the US Army Institute of Research examined the impact of Task Force XXI force modernization on soldiers and leaders. This study revealed that force modernization efforts were accompanied by substantial increases in workload and work-family conflict particularly for officers, but that few, if any, negative outcomes were associated with the modernization effort. Overall, soldiers and leaders appeared to believe in the value of the modernization effort.

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PREFACE

The Army has launched the Force XXI Campaign Plan to guide its entrance into the age of high technology communication and information systems. This new-age technology is projected to have dramatic impacts on the battlefield of the 21st century. General William W. Hartzog, Commander of the U.S. Army Training and Doctrine Command, has indicated that this technology will provide soldiers and leaders with the capability to gather, process, and use information differently than ever before. However, it is well established that an organization's success at achieving the promised benefits of an innovation is a joint function of the innovation itself and the implementation of that innovation.

This report summarizes a research project conducted jointly by the Walter Reed Army Institute of Research (WRAIR) and the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI). The study was designed to investigate the impact of Force XXI modernization upon soldiers and leaders of an experimental brigade-level task force (Task Force XXI) during an Advanced Warfighter Experiment (AWE). The research was supported by a Memorandum of Agreement among the Task Force XXI AWE Study Director (U.S. Army Training and Doctrine Command Analysis Center-White Sands Missile Range), the Experimentation Officer (U. S. Army Test and Experimentation Command), ARI, and WRAIR. The research was conducted under the auspices of the Experimental Force Coordination Cell and the 4th Infantry Division at Fort Hood.

As they became available, the results of the various phases of this assessment were back briefed to commanders and leaders of Task Force XXI. The purpose of these back briefs was to provide the commanders with information they could use to develop short-term programs that could exploit the positive human dimensions outcomes and mitigate any negative outcomes that were identified.

This documents provides empirical information on issues related to leadership, training, operational tempo, and soldier health during force modernization. It provides an historical record of the effects of new technology implementation as the Army moves toward the challenges of the Army After Next. The report can be used to identify and assess the challenges of future Army initiatives for force modernization.

EXECUTIVE SUMMARY

The relative success of implementing technological changes in organizations is frequently related to the effectiveness of the technology implementation process itself. Consequently, when engaged in technological changes, organizations should monitor how the technology implementation process impacts employees. By monitoring this process, key decision makers are better able to determine the extent to which observed outcomes are due to new technology, per se, or are the by-product of changes in the work environment brought on by the technology implementation process.

Human dimensions assessments are designed to monitor and record the human dimensions of changes that occur in the work environment. These assessments have been an important part of major Army initiatives since World War II.

This human dimensions assessment quantified the impact of changes in the work environment of an experimental brigade-level task force (TF XXI) caused by an Advanced Warfighter Experiment (AWE). The TF XXI AWE was designed to investigate the potential for digitizing land combat forces. The digitization initiatives were highlighted by the fielding of new technology equipment, but included also changes in tactics, techniques and procedures, as well as some changes in organizational design. These digitization initiatives and the changes they caused in the work environment were examined for their impact on organizational effectiveness and on how participants perceived the AWE and their role in it.

Based on a review of the literature, changes associated with the TF XXI AWE were expected to impact workload and the perceived meaningfulness of the work. Our data showed a large increase in the number of work hours reported by soldiers and leaders over the course of the AWE. The increase in work hours was most noticeable for Officers and was associated with an increase in work-family conflict for Officers. Despite this increase in the number of work hours, direct ratings of work overload were not universally high and did not increase over the AWE. These findings suggest that soldiers and leaders were working many 'overtime' hours, but felt that the work required was within their capabilities. One of the factors that undoubtedly helped soldiers and leaders adjust to the high levels of work hours was their belief that their units were working on a mission that had high levels of meaningfulness and value for the Army.

Past research suggests that the digitization initiatives and their impact on the work environment would be related to five measures of organizational effectiveness. The measures are (1) psychological distress, (2) job satisfaction, (3) commitment to the Army, (4) career intentions, and (5) perceptions of readiness. Our goal was to determine whether these measures of organizational effectiveness changed over the course of the AWE. The results of these analyses provide no evidence in support of the idea that the technology initiatives or the technology implementation process negatively impacted the organizational effectiveness outcome of the TF XXI AWE. Instead, these results suggest that soldiers and leaders appear to have adjusted well

to the increased work demands placed upon them because of their participation in the TF XXI AWE.

To examine directly the perceptions of soldiers and leaders toward the new technology and the changes it brought to the work environment, we ask the respondents' to indicate their level of agreement or disagreement with a series of survey items that were specifically created for and tailored to the TF XXI AWE. These survey items permitted soldiers and leaders to indicate their perceptions toward: (1) the potential long-term impact on Army's capabilities; (2) the new equipment; (3) adequacy of training on the new equipment; (4) the technology's impact on their jobs; (5) the impact of soldier and leader participation in the implementation process; and (6) the potential long-term impact on Army-wide personnel issues.

An analysis of the responses of soldiers and leaders to these survey items showed the following results: (1) Respondents expressed general familiarity with the initiatives and believed that the initiatives would in the long term enhance Army capabilities. (2) They recognize that the new equipment was not as reliable as ultimately necessary, but also that it was getting better and leading to positive changes for the Army, even over the short-term. (3) They generally agreed that the individual operator training and unit-level training they received was becoming more adequate. (4) They indicated that their new jobs would require them to handle more information, be more complex, and give them more responsibility. (5) Over time, an increasingly larger percentage of respondents indicated their participation in the AWE increased their sense of pride and accomplishment, their job performance, and the readiness of their units. (6) They believed the digitization initiatives had long-term implications for the quality of personal and family life, and for Army programs designed to promote the retention and recruitment of high quality personnel.

Taken together, the results of this assessment contain much information about the impact of information-age technology implementation on soldiers and leaders. It also raised many questions about how the Army should exploit the positive and mitigate the negative impacts that were identified.

On the one hand, it is important to show that soldiers and leaders can and do accomplish difficult assignments under difficult conditions. Much if not most of the technology (both hardware and software) was still in various stages of early development. The doctrine, tactics, techniques, and procedures that describe how this technology was to be used was just beginning to be defined. The organizational design, and the training and personnel systems required to exploit the capabilities of the new technology were in their infancy. Even under these relatively adverse conditions, it is encouraging to find that as soldiers and leaders became more familiar with the new technology and its use, they appeared to be less threatened by it, and appreciated more the positive impact it would have on them, their units, and the Army as a whole.

On the other hand, the findings underscore potential problems with a number of different but clearly interrelated human dimensions. One example is the requirement for more extensive training, and its possible impact on quality personal and family time. Another example is the new career opportunities created by this technology within but also outside the Army, and the

possible impact of these opportunities on Army-wide personnel retention and recruitment programs.

Clearly, this human dimensions assessment of the impact of information-age technology and its implementation on soldiers and leaders in TF XXI must be recognized for what it is: a quick but incomplete analysis of a very important set of issues and relationships. While more research is required to fully understand and respond to the human dimensions of the Force XXI program, this study contributes to the requirement to define, quantify, and record empirical information related to the human dimensions of force modernization initiatives. Consequently, the results of this assessment of the human dimensions of Task Force XXI will be of value in defining and developing programs to respond to human dimensions challenges in the future.

INTRODUCTION

1.1. Background

The relative success of implementing technological changes in organizations is frequently related to the effectiveness of the technology implementation process itself (Klein & Sorra, 1996). Consequently, when engaged in technological changes, organizations should monitor how the implementation process impacts employees. By monitoring this process, key decision makers are better able to determine the extent to which observed outcomes are due to new technology, per se, or are the by-product of unanticipated changes in the work environment brought on by the technology implementation process.

Human dimensions assessments are designed to monitor how changes in work environments impact soldiers and leaders, and have been an integral part of major Army initiatives for decades. In the 1980s, human dimensions researchers from Walter Reed Army Institute of Research (WRAIR) conducted longitudinal assessments of the Army's New Manning System and Unit Manning System (Marlowe, 1986). The research goal of these assessments was to examine how the implementation of new manning systems impacted work environment factors such as cohesion that in turn contributed to unit performance.

In the 1990s, human dimensions assessments have played an important role in understanding work environment stressors associated with the Persian Gulf deployment and the downsizing that occurred after that deployment (Stretch, Bliese, Marlowe, Wright, Knudson, & Hoover, 1995; 1996). More recent assessments have focused on how soldiers and leaders adapt to the role of peace keeper in sustainment and support operations such as those in Somalia and Haiti (see Halverson, Bliese, Moore, & Castro, 1995; Halverson & Bliese, 1996; Kirkland, Halverson, & Bliese, 1996). Even more recently, behavioral scientists from the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and those from WRAIR have combined their respective resources to conduct a series of studies focused on the stress, health, and adaptation of soldiers and their families during the deployment of forces for Operation Joint Endeavor in Bosnia (see Langenwalter, 1997).

Across all of these studies and situations, human dimensions assessments have provided a method of (1) quantifying and recording how the work environment of soldiers and leaders change as a function of external factors and (2) estimating the organizational impact of these changes. Information from these studies has helped to preserve the fighting strength of soldiers and enhance the performance of Army units.

1.2. Statement of the Problem

The Advanced Warfighter Experiments (AWE) associated with the 4th Infantry Division (4ID), serving as the Experimental Force (EXFOR) of the Force XXI program, caused significant changes in the work environment of soldiers. The changes associated with the AWE were designed to investigate the potential for digitizing land combat forces. The digitization initiatives were highlighted by the fielding of new technology equipment, but included also

changes in tactics, techniques and procedures, as well as the insertion of new concepts in organizational design. Beginning in March 1996, soldiers and leaders in the experimental First Brigade Combat Team (1BCT) or Task Force XXI (TF XXI) of the 4ID executed over 100 initiatives associated with the AWE while preparing for the March 1997 rotation at the National Training Center (NTC). The NTC rotation was the capstone event of the TF XXI AWE. This NTC rotation was conducted with the same rules and procedures governing all NTC rotations while incorporating some "futuristic" digital missions.

The technological changes associated with the TF XXI were expected to have an impact on several important aspects of the work environment of soldiers and leaders. In theory, the changes associated with TF XXI were designed to enhance the effectiveness of individual warfighters and units by, for example, facilitating communication, increasing situational awareness, improving lethality of weapons, and enhancing battlefield decision making. The technological changes, however, also had the potential to dramatically change the work environment in other unanticipated ways. These other unanticipated changes in the work environment could, in turn, have their own positive or negative impacts on the effectiveness of the experimental task force. The human dimensions assessment described in this report quantifies the human dimensions of the changes that occurred in the work environment and the impact of these changes on measures of organizational effectiveness.

There is, in addition, another reason to assess the impact of the new initiatives on the human dimensions of the experimental task force. In short, by assessing the perceptions of the intended users of these initiatives toward the new initiatives themselves as well as toward the changes the initiatives cause in their work environment, we open a source of data and information about the diffused contextual environment of the TF XXI AWE. It has been well documented that the effects of information technology on organizations are not only the result of the technology itself but are also the result of the dynamic and interacting convergence of the technological forces and contextual forces that exist within the organization (see DeSanctis & Poole, 1994; McGrath & Hollingshead, 1994). Hence, by assessing the perceptions of soldiers and leaders toward their experiences in the AWE, we may contribute to a better understanding of the impact of the TF XXI initiatives on the emerging digitized force.

1.3. Objectives

This human dimensions assessment of TF XXI had two objectives:

- To collect empirical data that accurately reflected any positive or negative impacts on soldiers and their leaders associated with implementing the TF XXI AWE initiatives.

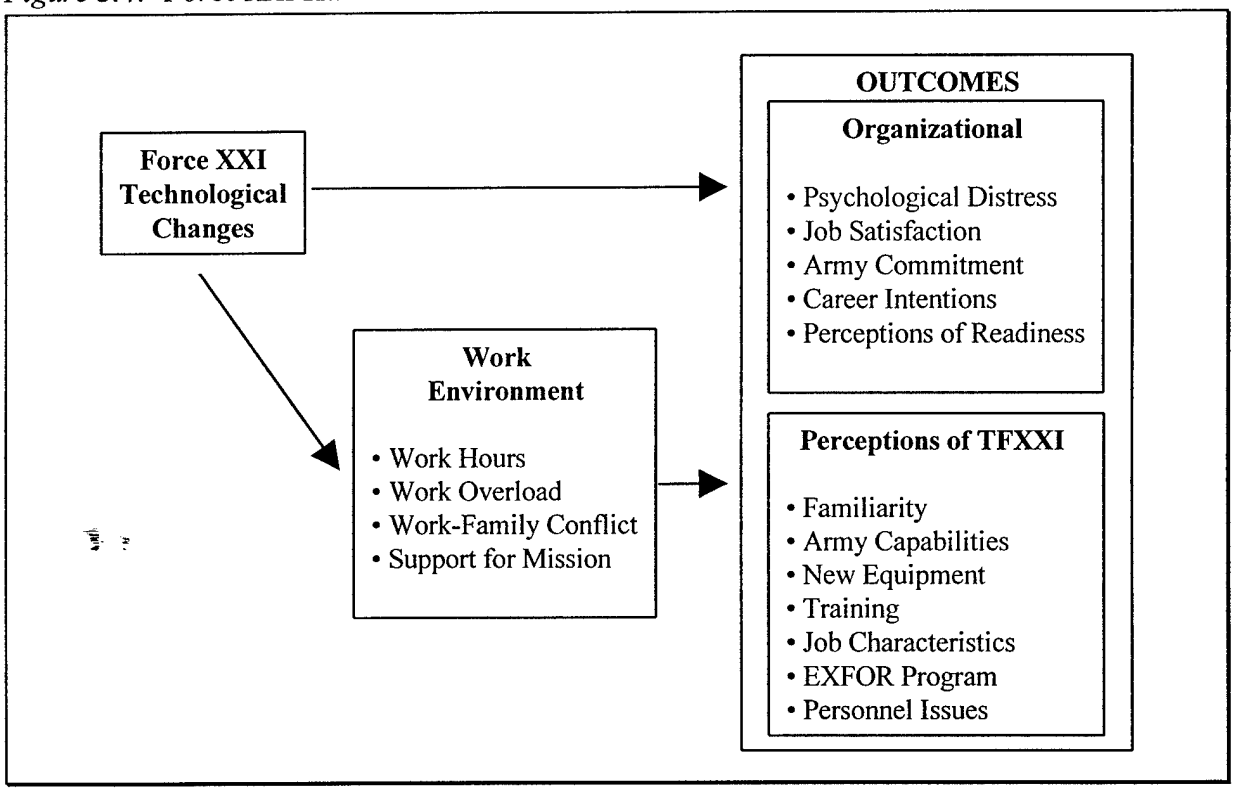
- To publish the overall results of the assessment to provide an historical record of the human dimension aspects of technology implementation and to provide information to senior military leaders that may be of value in identifying and responding to future challenges.

1.4. Theoretical Working Model

Figure 3.4 summarizes the theoretical working model used to describe the impact of TF XXI technological changes on soldiers and leaders. Previous research leads us to predict that technological changes will affect the work environment. Often, it is the changes in the work environment in addition to or instead of the new technology that affects both organizational outcomes and the perceptions of the potential impacts of the new technology. Succeeding paragraphs briefly describe each major component of this working model.

In the human dimensions assessment, we expected the changes in the work environment to fall within two broad categories: (1) changes in the workload and (2) changes in experienced meaningfulness of the work. We looked first at changes in the workload of soldiers and leaders. Workload was expected to increase during the AWE, and we examined these changes by measuring soldiers' and leaders' reports of work hours, their reports of work overload, and their reports of work-family conflict.

Figure 3.4: Force XXI Human Dimensions Assessment Model



The second aspect of the work environment that we expected to change as a function of the AWE was the degree to which soldiers and leaders attached significance to their work related mission. In organizational research, experienced meaningfulness has been shown to be an important predictor of organizational outcomes (Hackman & Oldham, 1975). Employees who tend to feel that their job has meaning also tend to engage in a number of behaviors that are beneficial to the

organization: in short, they work harder because they are more committed to the outcome. In the TF XXI assessment, experienced meaningfulness was measured during the AWE by examining the support soldiers and leaders reported they had for their units' mission.

Changes in workload and experienced meaningfulness, as well as changes caused directly by the insertion of Force XXI initiatives, were expected to be related to five organizational outcomes. The outcomes were: (1) psychological distress, (2) job satisfaction, (3) commitment to the Army, (4) career intentions, and (5) perceptions of readiness. Organizations that have employees with low levels of psychological distress, high job satisfaction, high commitment, low turnover intentions, and high perceptions of readiness are generally considered high performing organizations. Our goal was to determine whether the changes involved with TF XXI had a positive, negative, or no effect on the work environment and on these five organizational outcomes.

In addition to examining how the implementation of new technology impacts the work environment and organizational outcomes, we were interested in examining directly the perceptions of soldiers and leaders toward the new technology and the changes it brought to the work environment. Specifically, we addressed perceptions of soldiers and leaders for: (1) the potential long-term impacts on the Army's capabilities; (2) the new equipment; (3) adequacy of training on the new equipment; (4) the technology's impact on their jobs; (5) the impact of soldier and leader participation in the implementation process; and (6) the long-term impact on Army-wide personnel issues.

1.5. Data Collection

The model presented in Figure 3.4 was examined using two types of data collected during the AWE: survey data and interview data. These data are discussed below.

1.5.1. Survey Data.

Soldier and leader perceptions of TF XXI, the work environment, and organizational outcomes were assessed using surveys developed jointly by WRAIR and ARI. Most items in the survey were positive declarative statements. Generally, respondents were asked to indicate on a five-point scale the extent to which they agreed or disagreed with each of these items. In most cases, sets of three or more items in the survey could be aggregated into scales with known reliability and validity. However, when we considered it both necessary and appropriate, new individual survey items were specifically created for and tailored to the context of the TF XXI AWE. A copy of the survey instrument is included in Appendix A.

1.5.2. Interview Data.

The effects of TF XXI were also assessed using structured interviews. One company from each battalion as well as each separate combat support company in the BCT was selected to participate in the interview process. From each selected company, four interviews were conducted: one with the Company Commander, one with the First Sergeant, one with a group of three to five Non-Commissioned Officers (NCOs), and one with a group of three to five junior

enlisted soldiers. The structured interviews targeted perceptions of TF XXI technology changes and the respondents' perceptions of the impact of these changes.

1.6. Data Characteristics

1.6.1. Collection Intervals.

Survey and interview data were collected using a longitudinal design. Assessments of the work environment, organizational outcomes and soldier and leader perceptions of TF XXI were conducted during three time intervals: August 1996; December and January 1997; and April 1997. We refer to these time periods or assessment phases as Baseline, Pre-NTC, and Post-NTC.

In each assessment period, surveys were distributed to all available soldiers and leaders in the 1BCT. In addition, interviews were conducted with the selected company-level units. In the Baseline assessment, 3,227 surveys were collected and 40 interviews were conducted. In the Pre-NTC assessment, 2,664 surveys were collected and 16 interviews were conducted. During the Post-NTC assessment, 2,293 surveys were collected and 50 interviews were conducted.

Besides collecting data from the 1BCT, we also collected data from the non-experimental (conventional or analog) 2BCT of the 4ID. The 2BCT data were used to provide a context from which to interpret the 1BCT data. Data were collected from the 2BCT during three time periods: June 1996, January 1997, and April 1997. These 2BCT data collection intervals were roughly equivalent to those used for the 1BCT. The 2BCT data set most relevant to the human dimensions assessment of the 1BCT is the data collected from them in June 1996. We considered this data set to be most relevant because it describes the state of the 2BCT right before it deployed to NTC for its rotation. The NTC rotation of both BCTs marked the culmination of an intensive period of training and served as a major "test" of their respective capabilities. In the Pre-NTC assessment period for the 2BCT, 2,880 surveys were collected and 40 interviews were conducted.

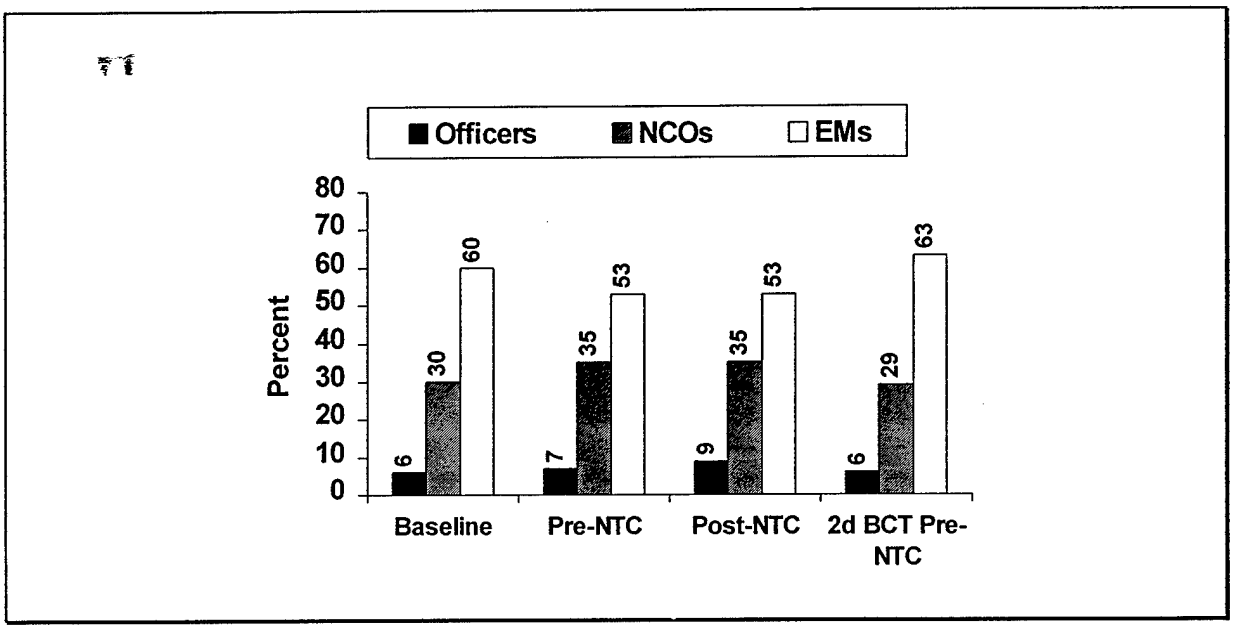
1.6.2. Demographics – Rank.

Figure 3.6.2 shows that in all three 1BCT samples, the majority of respondents were junior enlisted soldiers who we refer to as Enlisted "Men" (EMs: this term is used generically and includes both male and female junior enlisted soldiers). The second highest percentage of respondents was NCOs followed by Officers. Notice that there was a higher proportion of EMs in the Baseline sample than in the Pre-NTC or Post-NTC samples. Also, notice that the percentages within each time period do not add to 100. This is true because there were a small number of Warrant Officers in each sample, as well as a small number of missing responses. Warrant Officers were not included in the analyses because of their low numbers.

The Pre-NTC sample from the 2BCT contains a higher proportion of EMs and a lower proportion of NCOs than does any of the samples from the 1BCT. The differences in percentages of soldiers within rank categories across samples suggest that the variables of interest should be examined by rank category to control for rank differences when making comparisons. Consequently, when we examine changes in human dimensions variables across

the AWE, we break the data down by rank category instead of examining trends for the sample as a whole.

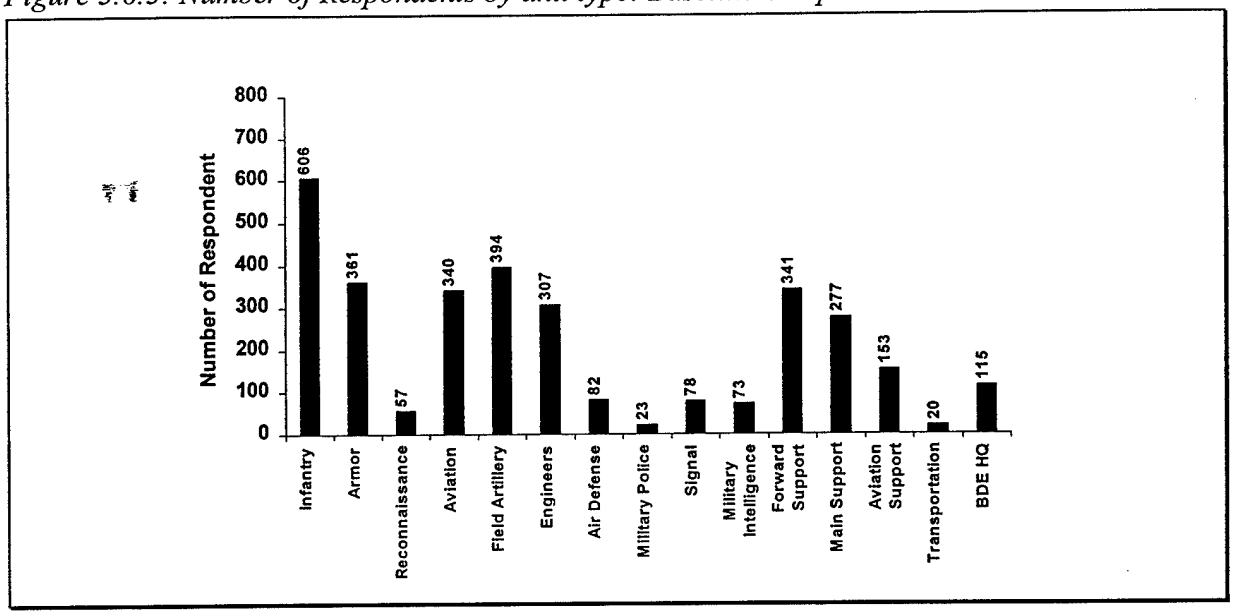
Figure 3.6.2: Percentage of Soldiers Responding to Survey by Rank



1.6.3. Demographics – Unit Type.

The data collected from the 1BCT came from a number of different types of units. Figure 3.5.3 presents the number of respondents in the August 1996 Baseline sample broken down by unit type. Infantry units provided more respondents than any other unit type. Figure 3.5.3 shows, however, that surveys were collected from a variety of Combat Arms, Combat Support, and Combat Service Support units. The breakdown of the data by unit type in the other samples was similar to the pattern shown in Figure 3.5.3 for the Baseline sample.

Figure 3.6.3: Number of Respondents by unit type: Baseline Sample



1.7. Data Analysis Methods.

1.7.1. Survey Data:

After screening the survey data to take into account missing and incorrect responses, the data were subjected to standard methods of descriptive and inferential statistics. When justified by previous research, the responses given to individual survey items were aggregated into mean scale values for each respondent. The scales of interest and the individual survey items that comprise each different scale will be described below as they are reported.

When a new individual survey item was developed specifically for this assessment, the frequency distribution of responses to the item was carefully examined and, when appropriate, the percentage of respondents indicating they agreed or strongly agreed with the item was determined and is reported. It was considered appropriate to report the percentage of respondents generally agreeing with an individual survey item when that percentage was considerably larger (or smaller) that the corresponding percentage of respondents who generally disagreed with the item. In these cases, the majority of respondents not in general agreement with the item indicated that they neither agreed nor disagreed with the item.

1.7.2. Interview data:

During interviews, each interviewer manually recorded the comments being made by respondents. As soon as possible after each interview session, the interviewer transcribed his or her written notes as well as other relevant recollections from the interview session into an electronic database. As a result of subsequent examinations of the interview database, it was possible to establish whether comments were consistent over the AWE and over the rank and duty assignment of the respondents. When we noted consistencies, and when we considered it both necessary and appropriate to do so, we report one or more of the paraphrased comments to

highlight findings we describe from the survey data. Because of constraints associated with creating interview databases, we were not able to perform rigorous analyses of the interview content.

THE WORK ENVIRONMENT

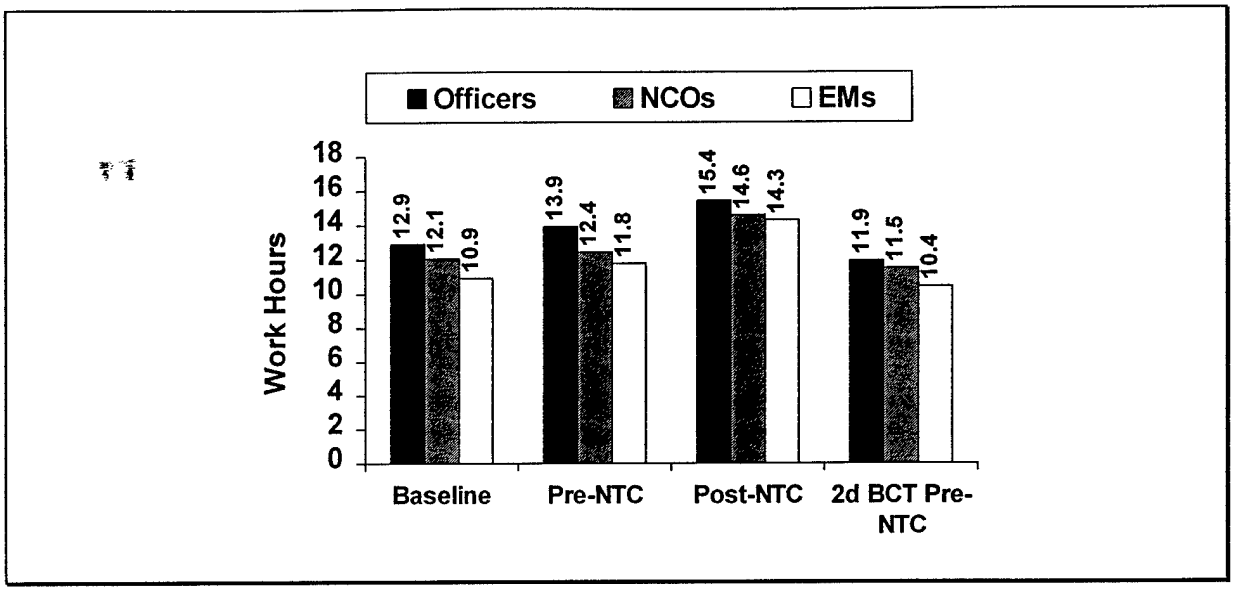
The technological changes associated with the AWE had the potential to impact positively and negatively the work environment of soldiers and leaders in the 1BCT. In this section, we examine how four work environment factors changed over the course of the AWE. The work environment factors are (1) work hours, (2) work overload, (3) work-family conflict, and (4) support for the mission. The first three factors are measures of the workload of the 1BCT soldiers and leaders. The fourth factor is a measure of the meaningfulness of work. As indicated in the introduction, these two dimensions of the work environment, workload and experienced meaningfulness of work, were expected to be impacted by the AWE.

1.8. Work Hours

The first aspect of the work environment that we examined was work hours. In human dimensions assessments, work hours are considered important because there is often a strong linear relationship between the average number of hours worked and the average psychological well being of unit members (see Bliese & Halverson, 1996). High levels of psychological well being equate to low levels of psychological distress. Psychological well being or distress is considered one of the broad measures of organizational performance; high levels of psychological well being is characteristic of high performing organizations. Based on the relationship between work hours and well being, we would expect outcomes such as well-being and job satisfaction to be low if work hours were high. In other words, long work hours would be expected to be accompanied by high psychological distress, low job satisfaction, and low Army commitment.

Figure 4.1 shows the average number of hours worked per day over the course of the AWE for the 1BCT. Two trends are immediately obvious. One is that the number of hours worked varied by rank. Officers reported working more hours than NCOs, and NCOs reported working more hours than EMs. The second trend is that even though the number of hours worked by 1BCT soldiers and leaders would be considered high even in the Baseline data collected in August 1996, it increased substantially between the Baseline sample and the Post-NTC data collected in April 1997. Overall, these data also suggest an interaction effect: the absolute number of hours worked increased over the course of the AWE more for EMs than for NCOs, and more for NCOs than for Officers.

Figure 4.1: Work Hours



For a comparison, Figure 4.1 shows also the average number of hours worked by members of the 2BCT prior to their NTC rotation in June 1996. Notice that although 2BCT was preparing for NTC, the average number of hours worked by them was lower than the baseline number of hours worked in the 1BCT. Overall, the data shown in Figure 4.1 suggest that one of the effects of participating in the AWE was an increase in the number of hours worked. While the increase in work hours affected all participants of the AWE, Officers reported working more absolute numbers of hours than the NCOs or the EMs.

Interview data confirms the data reported from the surveys. One Company Commander said, "Enlisted soldiers are working from 0600 to 1630. I am working from 0500 or 0600 to 1900. Since November, more and more selected groups have worked late. Especially hard hit with overtime is the service line who work until 1800 or later." A Staff Sergeant said, "You drive to work with the lights on and you drive home with the lights on."

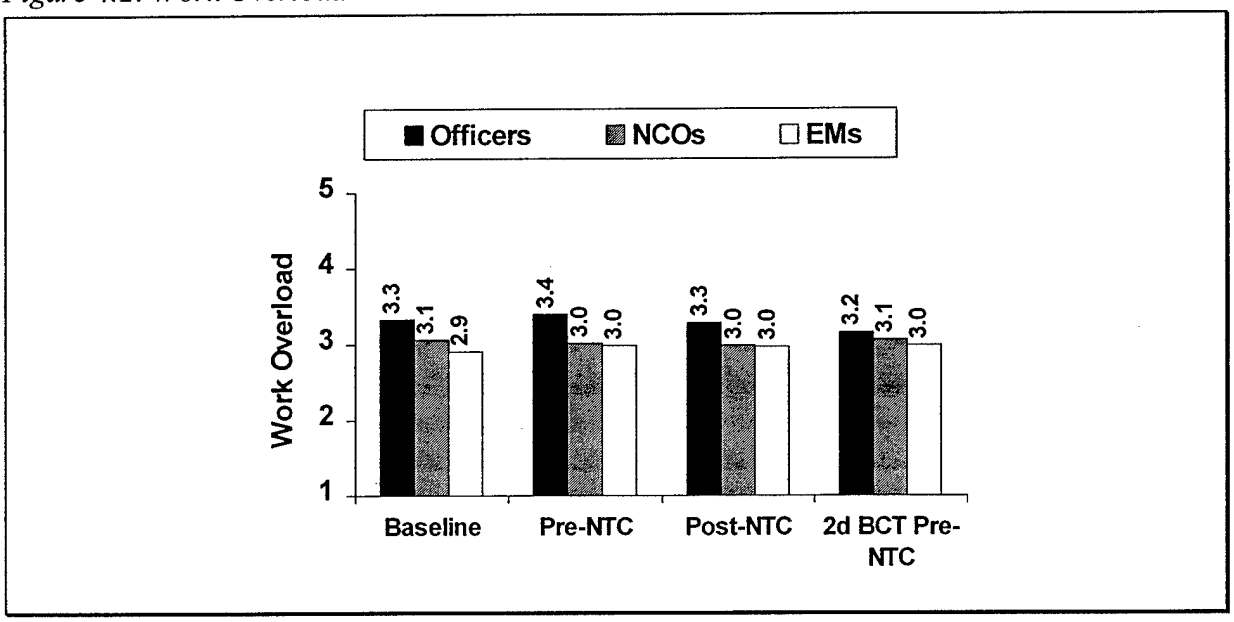
1.9. Work Overload

Although the number of hours worked tended to be high and to increase over the course of the AWE, it is not necessarily true that soldiers and leaders felt that these work hours exceeded their capabilities. In fact, interviews with soldiers and leaders indicated that most participants in the AWE felt that the workload demands, while high, were still well within the limits of their capabilities. To assess the issue of work overload more directly, we examined respondents' rated positions on the work overload scale over the course of the AWE. The work overload scale was derived from the role overload scale taken from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1983). It consists of the following three items: (1) I have so much work to do, I cannot do everything well, (2) I never seem to have enough time to get everything done, and (3) The amount of work I am asked to do is fair. The work overload scale is thought to measure the degree to which the amount of work that needs to

be accomplished is viewed as being above the capabilities of the respondents. Scale values above 3.0 indicate some degree of work overload. The scale has a reported reliability of .65 (Cammann et al., 1983); on the Baseline sample, the reliability was .54. The reliability of scale in the other two samples did not differ significantly from that in the Baseline sample.

Figure 4.2 provides mean ratings of the work overload scale over the course of the AWE for the 1BCT. Comparison data from the 2BCT are also provided. The figure shows that Officers reported low levels of work overload across all three time periods. NCOs and EMs, however, tended to report no work overload: their average scores tended to be at or below 3.0 throughout the AWE. Notice that levels of work overload for the 1BCT were not appreciably different from those reported for the 2BCT's Pre-NTC data sample. Overall, these comparison data suggest that work overload was not highly influenced by participation in the AWE.

Figure 4.2: Work Overload



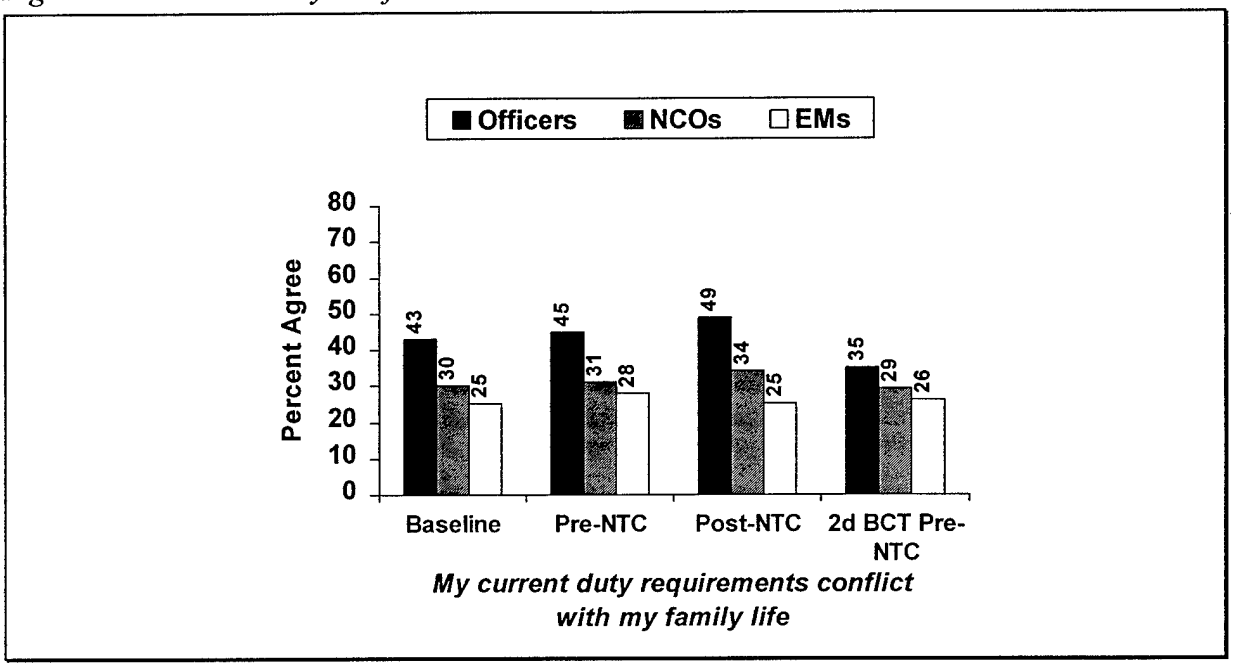
The previous analysis of work hours suggests that soldiers and leaders in the 1BCT were working very many hours per workday. The results of the analysis of the work overload scale indicates that despite the long work hours, members of the 1BCT did not reach the point where they felt that the number of hours they were working were adversely affecting their capabilities to perform their assigned work.

1.10. Work-Family Conflict

The third facet of the work environment that has major implications for organizational performance is the area of work-family conflict. In the organizational literature, work-family conflict has been linked to retention, job satisfaction, and performance. In general, high levels of work-family conflict are related to poor retention, low job satisfaction, and poor performance.

In the current assessment, work-family conflict was assessed using a single item from the survey in which respondents indicated whether they agreed or disagreed that their current duty requirements conflicted with their family life. Figure 4.3 provides the percentage of respondents who agreed or strongly agreed with the statement, broken down by rank and by assessment period. The figure shows that for Officers, work-family conflict was particularly high and that it increased over the course of the AWE. Work-family conflict was still substantial for NCOs and EMs. It increased slightly for NCOs over the AWE, but was constant for EMs.

Figure 4.3: Work Family Conflict



For comparison, the levels of work-family conflict from the 2BCT prior to its NTC rotation are also given in Figure 4.3. Notice that work-family conflict for Officers in the 1BCT was substantially greater than it was for Officers in the 2BCT, while it was similar across the 2BCT and 1BCT samples for NCOs and EMs.

Interviews with Company Commanders reinforce the survey data by also suggesting that the AWE increased the level of work-family conflict. A Company Commander reported, "The OPTEMPO was so high that a price was paid in soldiers' lives. Personally, I found it very hard on my marriage. There is now a strain in the relationship that wasn't there before. I've seen dramatic increases in alcohol, drugs, spouse abuse, an increase in animosity with soldiers ready to pick fights with each other. On the flip side however, I have really seen the unit grow over the last year." Another Company Commander stated, "A lot of family members were upset that their spouse was spending a lot of time away from them. Younger families had a harder time." A third Company Commander said, "Family anxiety was caused by the unpredictable schedules that began last summer. Plus the soldiers and families were not used to being separated for more than five days."

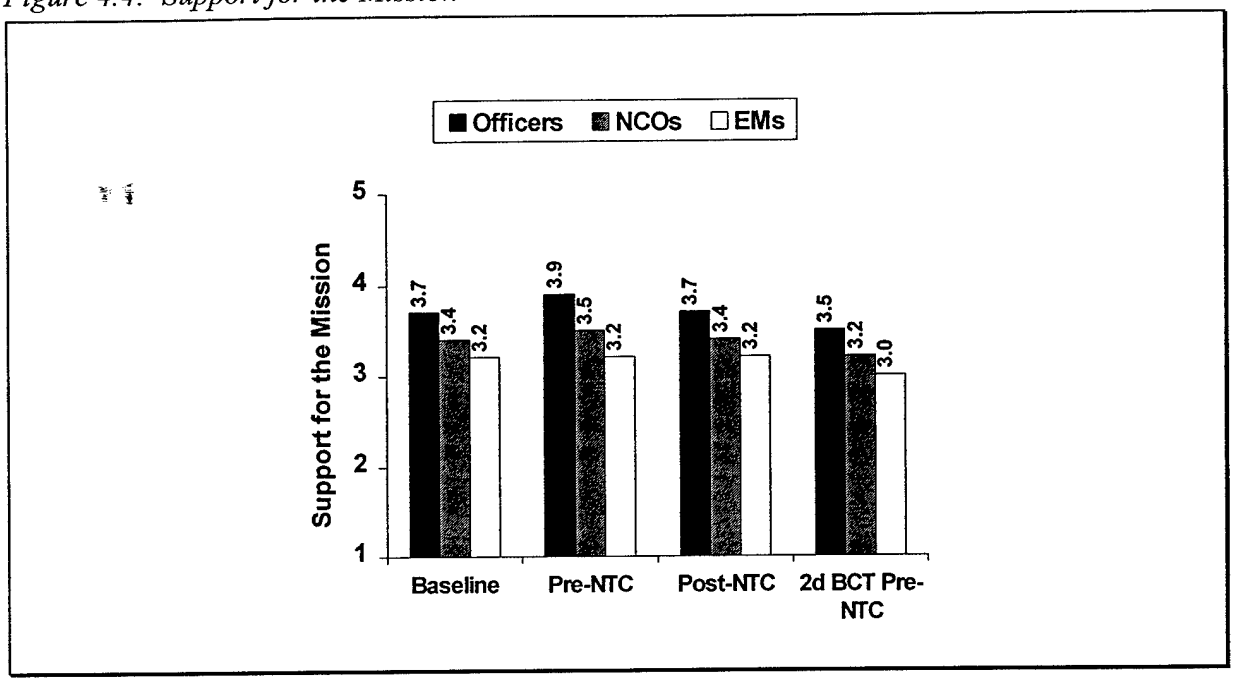
1.11. Support for the Mission

Experienced meaningfulness in one's job has long been considered an important predictor of organizational outcomes and is considered one of the core elements of influential organizational models such as the Job Characteristics Model (Hackman & Oldham, 1975). In recent military operations, experienced meaningfulness has been measured in terms of soldier support for the units' mission (Halverson & Bliese, 1996). This measure has been found to predict soldier well-being, satisfaction, commitment and several other performance related outcomes.
Evidence suggests that individuals' willingness to endure job-related hardships while still being productive is a function of experienced meaningfulness of the job. As a consequence of these types of findings, we assessed the degree to which soldiers and leaders felt that their work was important. Specifically, we used a support for the mission scale consisting of the following three items: (1) I believe in the value of our unit's mission, (2) Given my unit's mission, the amount of training we do makes sense, and (3) My unit's mission makes a real contribution to the Army as a whole. This scale was found to have acceptable reliability (Cronbach's Alpha of .66).

Figure 4.4 provides the scores of the support for the mission scale. Several observations can be made from the figure. First, the figure shows that, in general, respondents from all rank categories in the 1BCT reported positive support for the mission: scores above 3.0 indicate support, while scores below 3.0 indicate a lack of support. Second, the figure shows that support for the mission was at its highest level for the1BCT respondents in the Pre-NTC time frame. Finally, it shows that respondents from the 1BCT have greater support for their mission across all phases of the AWE than did respondents from the 2BCT during their Pre-NTC assessment.

Data collected during the interviews confirms that soldiers and leaders were supportive of the AWE mission. A First Sergeant said, "There are a lot of different mentalities in the unit all trying to work together as a team. It is hard but in the end we all pulled together to get things accomplished." A Company Commander stated, "AWE was fun, it was a challenge. I'd do it again. We accomplished the mission." A junior enlisted soldier said, "We all had a job to do so we just did it. This was a positive cause we all knew it." A Sergeant First Class stated that "Sometimes it seems that the changes are occurring too fast, but in the end all these changes will be good for us and the Army."

Figure 4.4: Support for the Mission



1.12. Summary and Conclusions

The work environment of the 1BCT showed a large increase in the number of work hours reported by soldiers and leaders over the course of the AWE. The increase in work hours was most noticeable for Officers and was associated with an increase in work-family conflict for Officers. Despite this increase in work hours, work overload levels were not universally high and did not appreciably increase over the AWE. These findings suggest that soldiers and leaders were working long hours, but that they felt that the work required was within their capabilities. One of the factors that undoubtedly helped soldiers and leaders adjust to the high levels of work hours was their belief that their units were working on a mission that had high levels of meaningfulness and value for the Army. This latter finding was reflected in the fact that support for the mission in the 1BCT was consistently higher than support for the mission in the 2BCT.

It is clearly important to determine if and how changes in the work environment impact organizational outcome variables such as psychological distress, job satisfaction, and commitment to the Army. The high and increasing levels of work hours over the course of the AWE would lead one to expect negative trends in organizational outcomes. However, the respondents' belief that the work required was within their capabilities and that the mission of the unit was important would normally be associated with positive changes in organizational outcomes. In the next section we examine the organizational outcome data.

ORGANIZATIONAL OUTCOMES

In the previous section, we assessed four factors that have been shown in organizational research to be significant predictors of organizational effectiveness. In this section, we examine five indices of organizational effectiveness. These indices are: (1) Psychological Distress, (2) Job Satisfaction, (3) Army Commitment, (4) Career Intentions, and (5) Perceptions of Readiness. Our goal in this section is to determine whether these five measures of organizational effectiveness changed over the course of the AWE for the experimental 1BCT and if they produced different results for the 1BCT than they did for the conventional 2BCT.

1.13. Psychological Distress

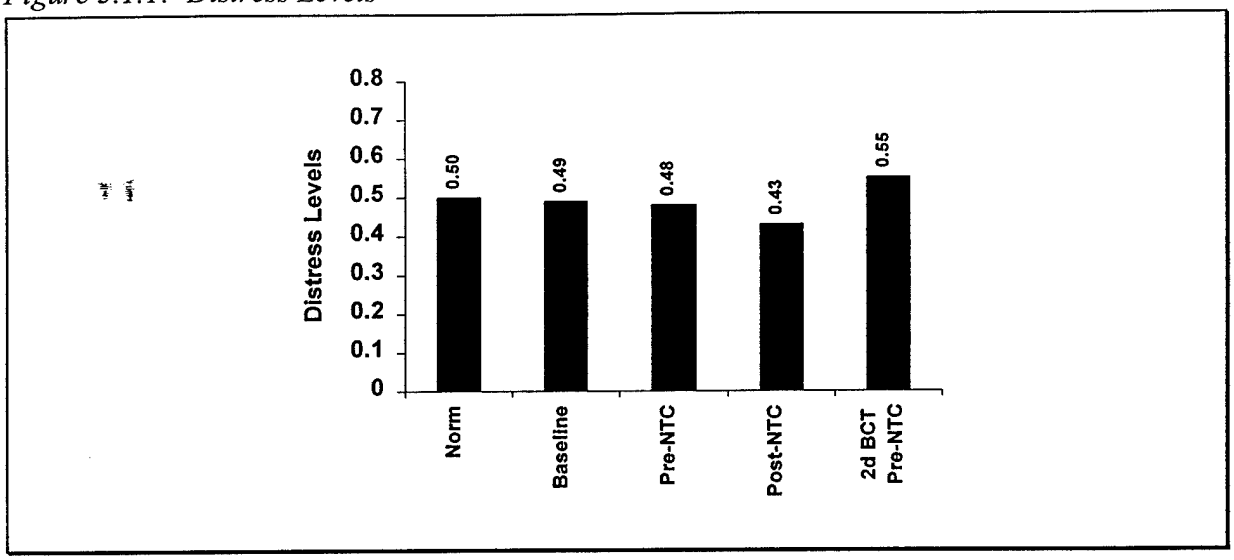
Our assessment of psychological distress was derived from the Brief Symptom Inventory (BSI, Derogatis, & Spencer, 1982). The BSI is a 53-item measure of psychological distress derived from the 90-item Symptom Checklist-Revised (SCL-90-R; Derogatis, 1977). The BSI has been used extensively in both research and clinical practice to assess psychological distress.

The BSI assesses the following nine psychological symptom dimensions: Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, Psychoticism, Obsessive-Compulsive Behavior, and Somatization. The BSI also yields three global indices of psychological distress (Derogatis & Spencer, 1982). The most widely used of these global measures is the General Severity Index (GSI). We used the GSI as a measure of the psychological distress of soldiers and leaders for this assessment.

1.13.1. Overall Psychological Distress

Figure 5.1.1 shows the GSI scores for the 1BCT over the course of the AWE. The figure shows scores from the 1BCT in comparison to garrison norms and scores from the 2BCT. Notice in the figure that the GSI scores for the 1BCT across all three-time periods were as good as or better than garrison norms. Specifically, the Baseline and Pre-NTC distress levels were nearly identical to garrison norms, and the Post-NTC distress levels were lower than those obtained earlier. Also, notice that the Pre-NTC scores from the 1BCT were lower than the Pre-NTC scores from the 2BCT. This finding for 1BCT is different from those obtained in earlier studies and from that obtained for 2BCT. Previous research has found that distress scores tend to rise above the garrison norm of .50 when the data are collected immediately before an NTC rotation.

Figure 5.1.1: Distress Levels

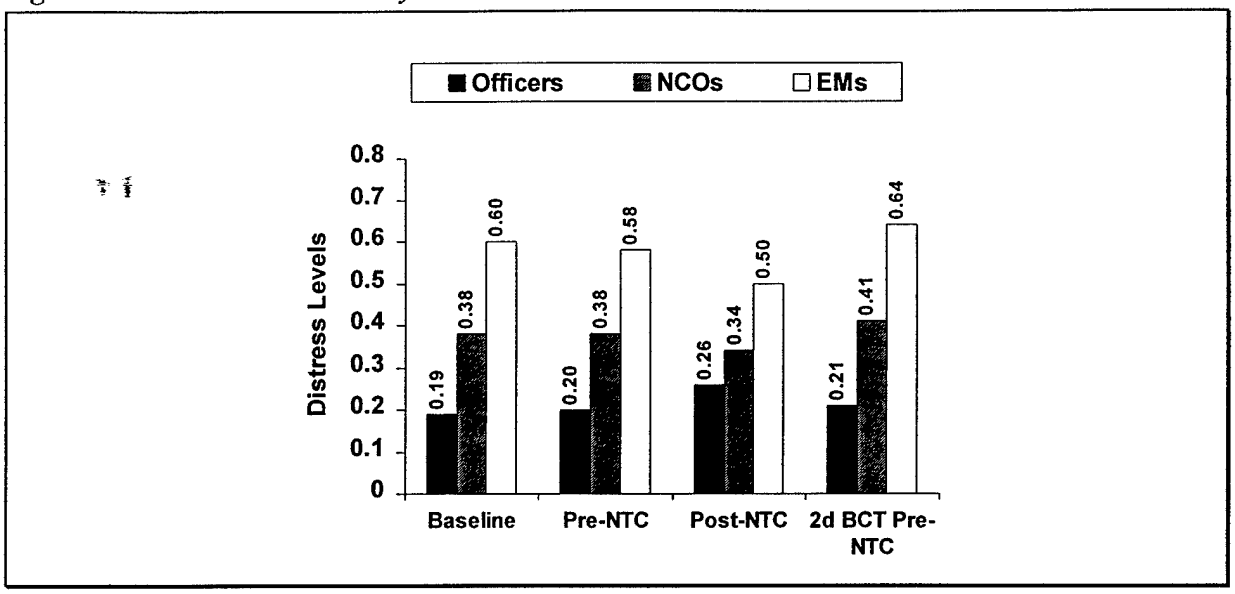


1.13.2. Psychological Distress by Rank

While the overall assessment of psychological distress indicated a slight downward trend in distress levels over assessment periods, it is valuable to examine psychological distress as a function of rank in order to detect trends that might be masked in an overall analysis. Furthermore, as we indicated in the introduction, it is important to examine human dimensions variables by rank in this study because the proportions of EMs, NCOs and Officers varied across samples. In the case of psychological distress, it has previously been shown that GSI scores vary directly with the rank of the individual (Stuart & Halverson, 1997). Figure 5.1.2 provides a breakdown of distress levels by rank.

Figure 5.1.2 shows that distress levels for EMs in the 1BCT declined considerably between the Pre-NTC sample and the Post-NTC sample. The change from an average distress level of .58 to an average distress level of .50 represents a statistically significant drop ($p < .001$). The figure also shows that distress levels decreased for NCOs and increased for Officers between the Pre-NTC sample and the Post-NTC sample. These latter differences, however, are not statistically significant ($p > .05$). Comparisons of the two Pre-NTC samples show that distress levels were higher for EMs in the 2BCT than for EMs in the 1BCT. On the other hand, Pre-NTC distress levels for NCOs and Officers in the 2BCT were quite similar to those reported by NCOs and Officers in the 1BCT. These comparisons suggest that the difference in distress levels shown in Figure 5.1.1 between 1BCT and 2BCT were due principally to differences between EMs in the two samples. The 2BCT sample contains a larger proportion of EMs (see data characteristics in the introduction) and the EMs in the 2BCT had elevated distress scores relative to those in the 1BCT.

Figure 5.1.2: Distress Levels by Rank



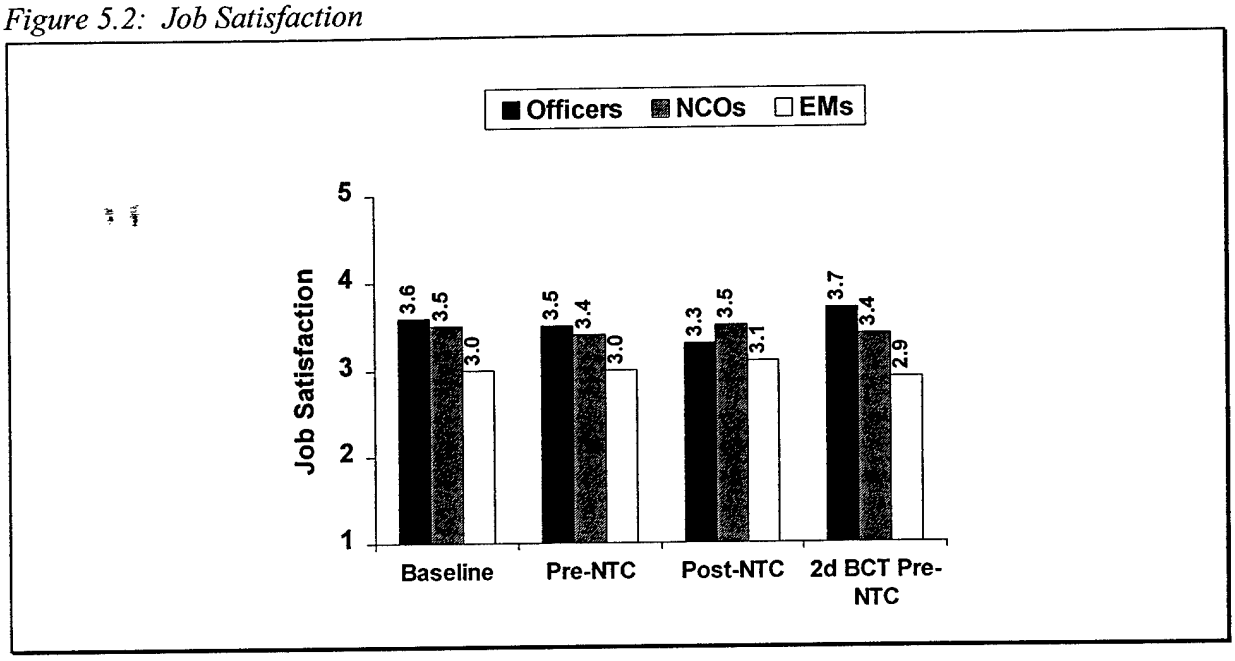
1.14. Job Satisfaction

The second index of organizational effectiveness that we assessed was job satisfaction. Job satisfaction was assessed using a modified version of the Job Diagnostic Survey General Satisfaction Scale (Hackman & Oldham, 1975). The scale contained three items: (1) I am very satisfied with my job in the Army, (2) I like my job in the Army, and (3) I am satisfied with the kind of work I do on my job. The reliability of the scale is .84.

Figure 5.2 shows levels of job satisfaction broken down by rank across the three time periods. Scores above 3.0 indicate positive job satisfaction. The figure shows that job satisfaction tended to be positive throughout the AWE for Officers and NCOs. In contrast, job satisfaction for EMs tended to be centered on 3.0 indicating neither positive nor negative job satisfaction. In addition, job satisfaction levels for soldiers and leaders in the 1BCT tended to be comparable to job satisfaction levels of soldiers and leaders in the 2BCT Pre-NTC.

Over the course of the AWE, job satisfaction for NCOs and EMs remained unchanged. Post-NTC job satisfaction levels for Officers, however, showed a drop in comparison to Baseline and Pre-NTC levels. The change from 3.6 during Baseline to 3.3 at Post-NTC represents a statistically significant change ($p < .01$). Despite this change, it is important to note that the 3.3 value still represents positive levels of job satisfaction.

Figure 5.2: Job Satisfaction

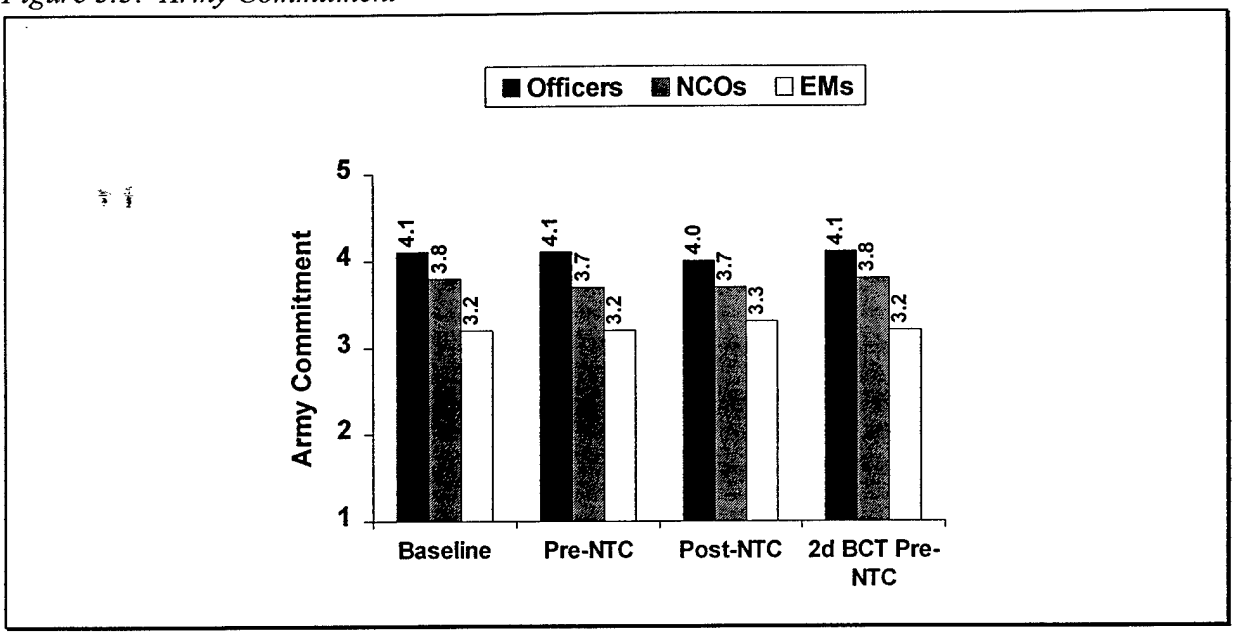


1.15. Army Commitment

The third facet of organizational effectiveness that we examined was Army Commitment. Commitment was assessed using a three-item scale derived from Mowday, Porters, and Steers (1982). The three items are: (1) I talk up the Army to my friends as a great organization, (2) I am proud to tell others that I am part of the Army, and (3) I really care about the fate of the Army. Responses to these three items were averaged together to create a Army Commitment scale. The scale has a reliability estimate of .81.

Figure 5.3 shows levels of Army commitment over the course of the AWE. The figure indicates that levels of commitment varied as a function of rank. Officers had the highest levels of commitment, followed by NCOs and EMs. Notice that levels of commitment remained relatively unchanged throughout the AWE, and that levels of commitment for the 2BCT Pre-NTC sample were nearly identical to the levels of commitment in the 1BCT.

Figure 5.3: Army Commitment



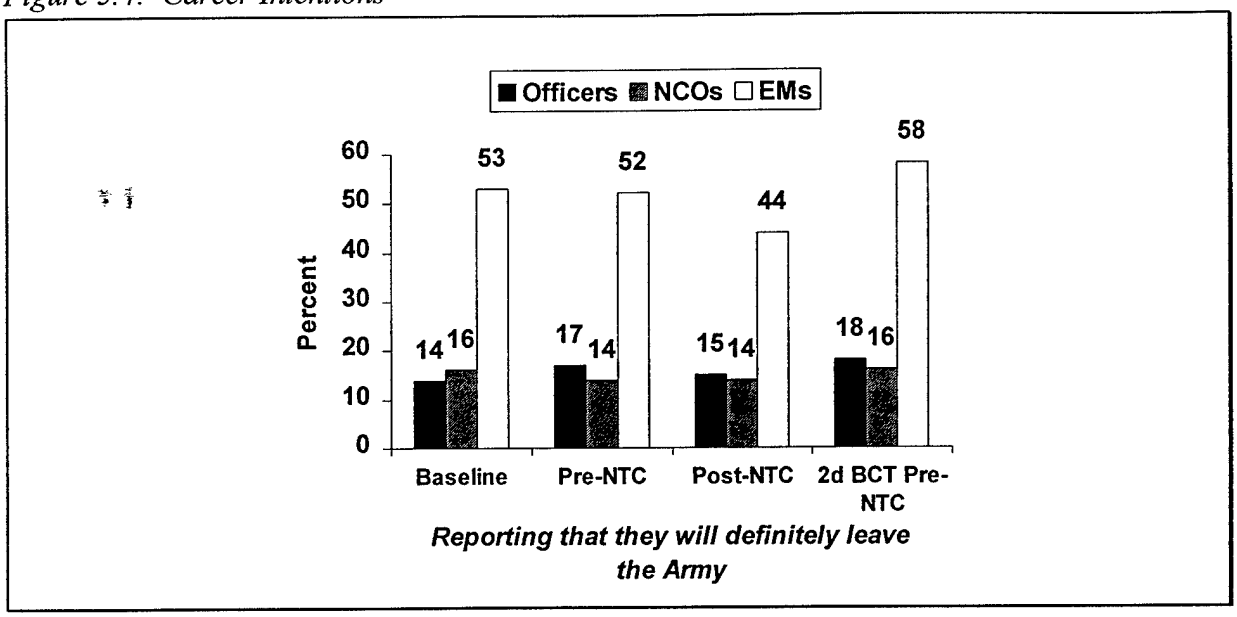
1.16. Career Intentions

The fourth measure of organizational effectiveness examined was Career Intentions. This factor was assessed by asking soldiers and leaders whether or not they intended to leave the Army upon completion of their present obligation. If a respondent indicated that he or she intended to leave the response was coded as a "1"; if the response indicated an intention to stay in the Army it was coded as "0".

Figure 5.4 provides the mean responses to the career intention scale arranged by rank. The mean response represents the percentage of soldiers and leaders that intend to leave the Army after their present obligation. For example, at Baseline 14 percent of the Officers indicated that they definitely intended to leave the Army after their current obligation.

The most noticeable aspect of Figure 5.4 is that EMs in the Post-NTC sample showed a substantial decline in their intentions to leave the Army. The percentage of EMs reporting that they intended to leave dropped from 52 percent in the Pre-NTC sample to 44 percent in the Post-NTC sample. Figure 5.4 also shows that the percentages of soldiers and leaders reporting that they intended to leave the Army were lower for the 1BCT than for the 2BCT Pre-NTC.

Figure 5.4: Career Intentions



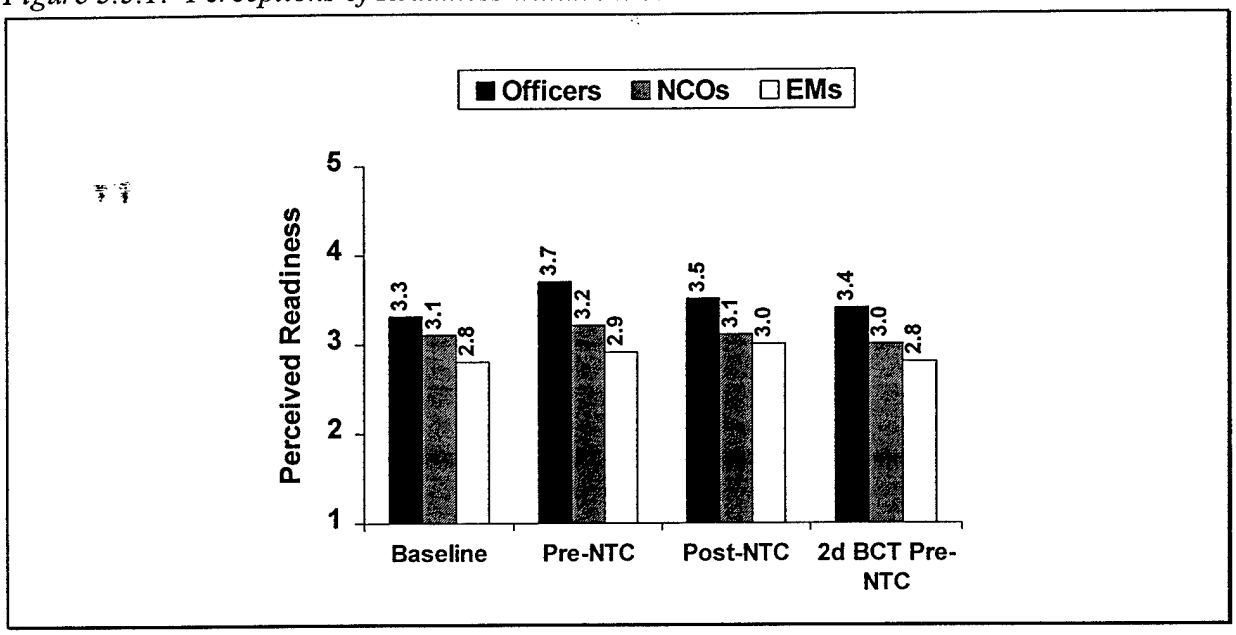
1.17. Perceptions of Readiness

The perception of unit readiness was the final organizational effectiveness outcome that was assessed. Perceptions of readiness were assessed using a four-item scale developed at WRAIR. Using this scale, soldiers and leaders were asked to indicate the degree to which they agreed or disagreed with the following statements: (1) I think my unit would do a better job in combat than most U.S. Army units, (2) I think the level of training in this company is high, (3) I have real confidence my unit's ability to perform its mission, and (4) If we went to war tomorrow, I would feel good about going with my unit. These items were averaged to create a readiness scale. The reliability of the scale was .83. Readiness was first analyzed in terms of overall readiness in the 1BCT and then it was analyzed in terms of readiness at the company level.

1.17.1. Readiness Within the 1BCT as a Whole

Figure 5.5.1 shows perceptions of readiness across the three time periods of the AWE. Notice that perceptions of readiness for Officers and NCOs were positive (above 3.0) throughout the AWE. Also, notice that perceptions of readiness for Officers peaked in the Pre-NTC sample. The 3.7 value on the readiness scale for the Pre-NTC sample was significantly higher than both the Baseline value of 3.3 ($p < .001$) and the Post-NTC value of 3.5 ($p < .05$). Overall, perceptions of readiness in the 1BCT were comparable to perceptions of readiness in the 2BCT Pre-NTC sample with the exception of the peak in readiness for Officers during the Pre-NTC sample.

Figure 5.5.1: Perceptions of Readiness within the 1BCT



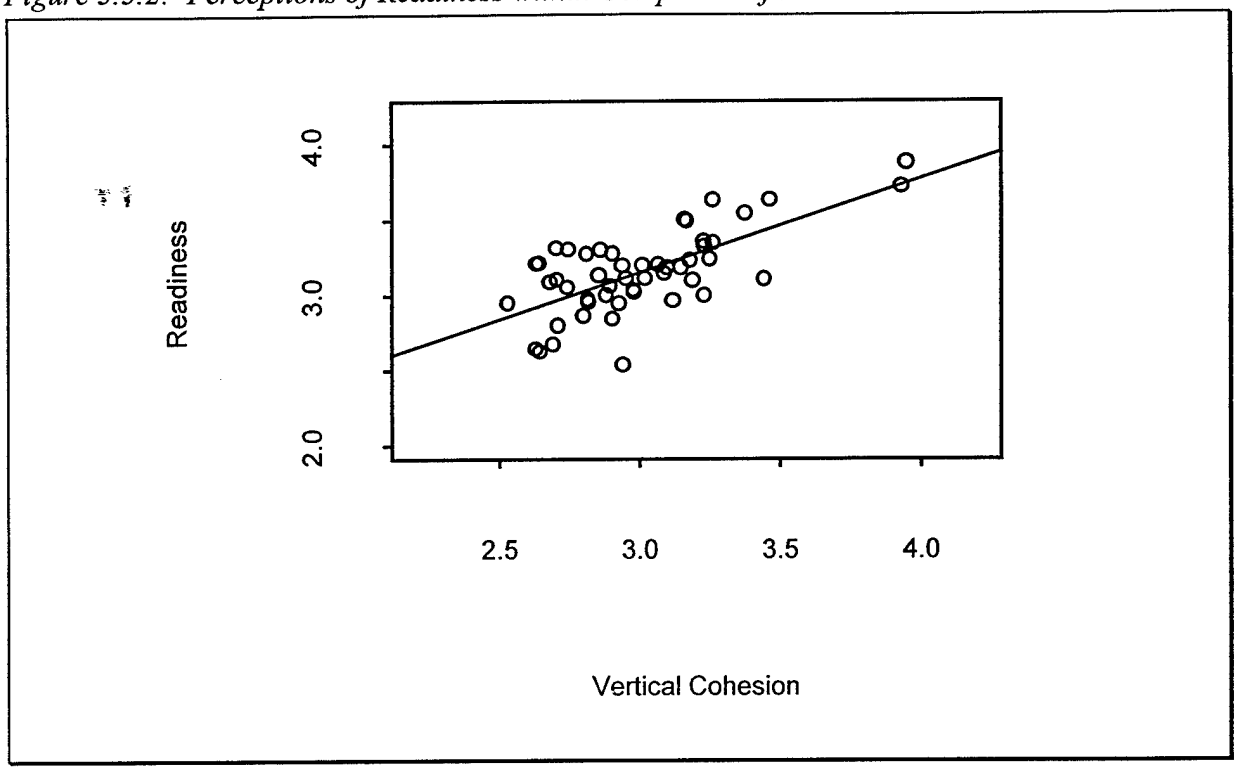
1.17.2. Readiness at the Company Level

More extensive analyses of the 1BCT data revealed that perceptions of readiness varied significantly at the Company level: some Companies reported high levels of perceived readiness while other Companies reported relatively low levels of perceived readiness. As a means of modeling this variation, we examined several factors that were expected to be related to Company-level readiness. These analyses revealed that one of the strongest predictors of Company-level readiness was the perception of vertical cohesion within the unit. Vertical cohesion was assessed by asking soldiers and leaders to rate the competence and consideration of both their NCOs and Officers. The vertical cohesion scale was developed at WRAIR and is a twelve-item scale with a reliability of .92.

Figure 5.5.2 shows the relationship between average level of perceived vertical cohesion within a Company and the average level of perceived readiness within the Company for the Baseline sample. The scatter plot shows that some Companies rated their readiness quite negatively (well below 3.0) while other Companies rated their readiness highly (close to 4.0). Notice that perceptions of leadership (vertical cohesion) varied from low (approximately 2.5) to very high (close to 4.0). It was shown that the correlation between the two variables is statistically significant (r=.68 , $p < .001$). The Pre-NTC and Post-NTC samples showed similar relationships between vertical cohesion and perceived readiness.

As has been previously shown (Bliese & Halverson, 1996; Halverson, et al., 1995), the data shown in Figure 5.5.2 demonstrates the importance of Company-level leadership in determining organizational effectiveness. It also shows that significant company-level variation often exists on important variables of interest.

Figure 5.5.2: Perceptions of Readiness within Companies of the 1BCT



1.18. Summary and Conclusions

In this section we examined five indices of organizational effectiveness. Our goal was to determine whether the measures of organizational effectiveness changed over the course of the AWE for the experimental 1BCT and if they produced different results for the 1BCT than they did for the conventional 2BCT. The results provided no evidence of negative trends in the five indices of organizational effectiveness across the Baseline, Pre-NTC, and Post-NTC samples. Furthermore, the indices of organizational effectiveness were similar to or slightly better than identical measures from the 2BCT. As a whole, these results provide no evidence in support of the idea that the technology implementation process negatively impacted the organizational effectiveness outcome of the TF XXI AWE. Instead, these results suggest that soldiers and leaders appear to have adjusted well to the increased work demands placed upon them because of their participation in the TF XXI AWE. Indeed, distress levels and intentions to leave the Army decreased significantly between Pre-and Post-NTC samples for EMs in the 1BCT. Distress levels and intentions to leave the Army were lower for EMs in the experimental 1BCT than they were for EMs in the conventional 2BCT. Taken together, these results suggest that for EMs the presumed adjustment to the rigors of the experiment had some over-riding positive after effects.

In the next section of this report, we examine more directly the perceptions of soldiers and leaders toward TF XXI and how these perceptions may have changed over the course of the AWE.

PERCEPTIONS OF TF XXI

In this part of the report, we present results that describe the perceptions of soldiers and leaders toward the Army-wide Force XXI program as it was implemented in TF XXI at Fort Hood, Texas. There were two sections in the survey instrument specifically designed to assess perceptions of the TF XXI program. In the first section, all respondents were asked to indicate their perceptions of the potential long-term impacts on the Army of the advanced technology. In the second section, only those soldiers and leaders who had actually been issued new equipment were asked to respond to a series of items concerning their perceptions of that new equipment and the EXFOR (Experimental Force) program at Fort Hood, as well as the impact of their participation in the EXFOR program.

The results regarding perceptions of TF XXI are organized and presented below in three major sections. First, we examine soldier and leader familiarity with the Force XXI program and their perceptions of how it will impact Army capabilities. Second, we examine soldier and leader perceptions of issues related to the new equipment, training, their jobs, and the impact of their participation in the EXFOR program. Finally, we examine the perceptions of respondents toward the long-term impact of the Army-wide Force XXI program on Army personnel issues. As with earlier parts of this report, we focus on changes in perceptions over the course of the TF XXI AWE, and we examine how perceptions vary as a function of rank.

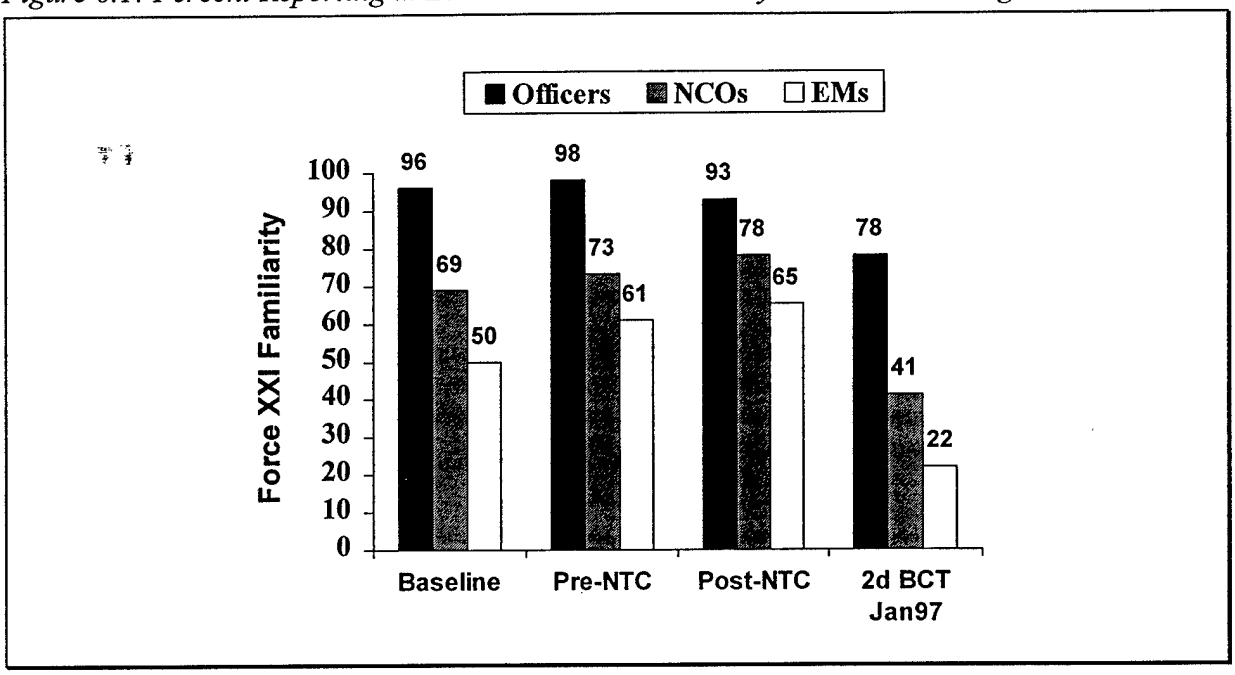
1.19. Familiarity with Force XXI and Its Impact on Army Capabilities

We first determined how familiar soldiers and leaders were with the Force XXI program at Fort Hood. Respondents were asked to indicate how familiar they were with the Army's EXFOR program at Fort Hood using one of following five response categories: None, A little bit, A moderate amount, Quite a bit, and Extremely.

Figure 6.1 shows the percentage reporting that they were at least moderately familiar with the EXFOR program. Notice that while most soldiers and leaders in the experimental task force were at least moderately familiar with the EXFOR program, the level of familiarity varied as a function of the respondent's rank and the assessment period. Officers' familiarity with the EXFOR program was reasonably stable (at about 95%) and consistently higher than for NCOs and EMs. The reported level of familiarity was higher for NCOs than EMs and increased for both these groups over the three data collection periods (from 69 to 78% and from 50 to 65 %, respectively). By way of comparison, data collected in January 1997 Officers, NCOs, and EMs in the non-experimental 2BCT showed that only 78, 41, and 22 percent, respectively, indicated they were at least moderately familiar with the EXFOR program.[1]

[1] The January 1997 data collection period (corresponding in time to the TF XXI Pre-NTC data collection period) is used to compare familiarity with the Force XXI program by members of the experimental 1BCT and the non-experimental 2BCT. By this time period in the EXFOR program, members of both BCTs had been given the opportunity to gain at least some familiarity with the new equipment. Members of the 1BCT acquired familiarity directly as a result of their experience as members of TF XXI. Members of the 2BCT acquired familiarity more vicariously through their participation as members of the opposing force and as observers/controllers during TF XXI training, as well as through informal discussions that occurred with members of the 1BCT.

Figure 6.1: Percent Reporting at Least Moderate Familiarity with EXFOR Program



Since familiarity with Force XXI by 1BCT respondents generally increased over the AWE, it would be valuable to examine how their perceptions toward Force XXI changed as they become more familiar with the program. Consequently, we examined their responses to four items concerning Army capabilities. The items asserted that the long-term impact of advanced technology would increase: (1) the Army's ability to find and destroy the enemy, (2) the speed at which decisions would be made and executed, (3) the Army's ability to provide combat service support (CSS) to the force, and (4) the Army's ability to survive in the battlefield. The results obtained with these four survey items are summarized in Figure 6.1.2.

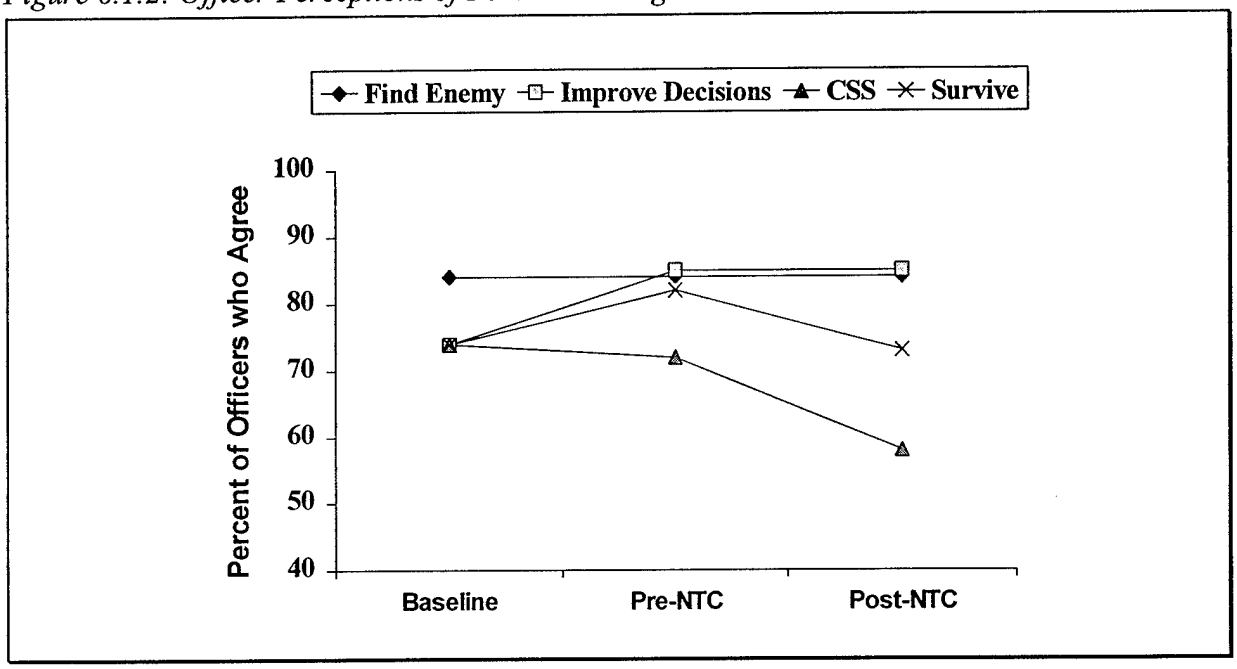
On average, the majority of respondents agreed with the positive assertion made by each of these items, regardless of the assessment period or the respondents' rank. There were, however, interesting variations in both absolute and relative levels of agreement. For NCOs and EMs, the overall level of agreement with these four survey items did not vary as a function of assessment period. On average, 52 percent of the EMs and 61 percent of the NCOs agreed or strongly agreed with each of these statements.

In contrast, while the majority of Officers agreed with each of the four items, they showed some noticeable variation in their responses to the items. Officers agreed that the new technology would increase the Army's ability to find and destroy the enemy (Item 1) 84 percent of the time over all three assessment periods. The percentage of Officers who agreed with Item 2 (improve decision making) increased over the course of the AWE from 74 percent at Baseline to 85 percent at Pre-NTC and Post-NTC. For Item 3 (improve CSS), Officers showed a pronounced downward trend from 74 percent agreement at Baseline to 72 percent at Pre-NTC, and to 58

percent in the Post-NTC sample. Finally, with Item 4 (improve ability to survive), Officers reported an increase from Baseline (74%) to Pre-NTC (82%) followed by a return to baseline levels at Post-NTC (73%).

Taken together, responses to the item on familiarity and the four items on long-term benefits to the Army indicate that both soldiers and leaders knew about the EXFOR program at Fort Hood and believed that the new technology associated with the program would enhance the ability of the Army to successfully perform its mission. The fact that Officers' levels of agreement with some of the promised benefits of the program varied over time is apparently the result of their mixed levels of experience with different new technologies or with different uses of the same technologies.

Figure 6.1.2: Officer Perceptions of Force XXI Program



1.20. Perceptions of New Equipment, Training, and Participation

Only respondents who had been issued new high technology equipment as part of the EXFOR program[2] were asked to respond to a series of survey items covering: (1) their perceptions of that equipment, (2) the training they received on that equipment, (3) the impact of the new equipment on their jobs, and (4) the extent to which their participation in the EXFOR program might have had any positive impacts on them or their units. Succeeding sections of this report present the results obtained from responses to these surveys items.

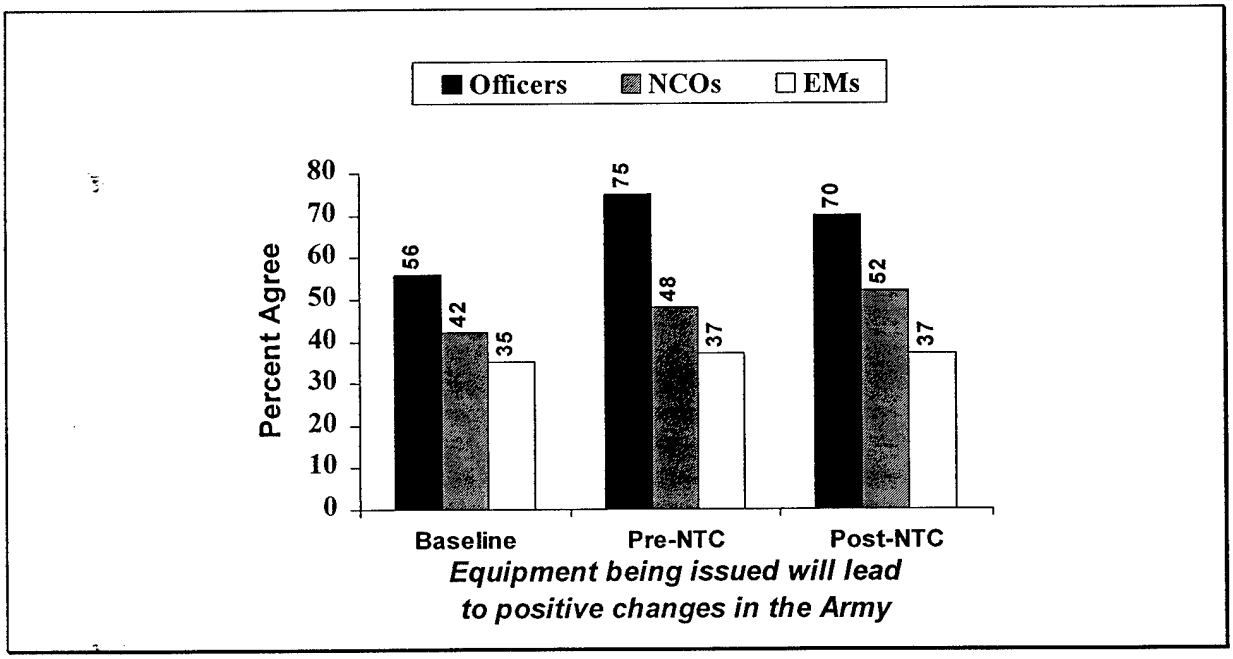
[2] On the average but varying slightly as a function of assessment phase, about 68 percent of the EMs, 72 percent of the NCOs, and 87 percent of the Officers indicate they or their units had been issued new Force XXI equipment. Since members of the 2BCT had not been issued equipment associated with TF XXI nor had they participated directly in the TF XXI program, their perceptions toward that equipment, training, or to the program were not evaluated for comparison with the data from the 1BCT.

1.20.1. EXFOR Equipment

Two survey items directly but generically addressed respondents' perceptions of the TF XXI equipment. The percentage of respondents who agreed that the new equipment was reliable increased as a function of both rank and assessment phase. The percentage of Officers, NCOs and EMs who agreed that the equipment was reliable increased from 6, 16, and 12 percent, respectively, in the Baseline Phase, and to 35, 32, and 21 percent, respectively, in the Post-NTC Phase. While there was a general increase in the perceptions of equipment reliability, the absolute values remained low even at the Post-NTC phase. This suggests that respondents felt that equipment reliability was a major concern. These concerns about system reliability were reflected in an item that asked whether the new equipment would have to be significantly improved over the next few years. The percentage of Officers, NCOs and EMs who agreed with this item was 86, 69, and 59, respectively, and did not vary over assessment periods.

Another item in this section of the survey assessed whether respondents felt that the new equipment issued to units at Fort Hood would lead to significant positive changes in the Army. Figure 6.2.1 shows the results obtained for this item. Notice that the percentage of EMs indicating agreement with this statement was relatively constant over the three phases (approximately 36%). For NCOs and Officers, however, it was higher than for EMs at Baseline (42 and 56%, respectively) and increased over assessment periods (to about 50 and 72%, respectively). It is important to note that the percentage of respondents who agreed with this statement is much lower than the percentage of respondents who agreed that the Force XXI program would have long-term benefit to the Army (see previous section). This difference most likely reflects the respondents' belief that the currently available prototype systems will be improved over the long-term course of the Force XXI program.

Figure 6.2.1: Perceptions of Issued Equipment



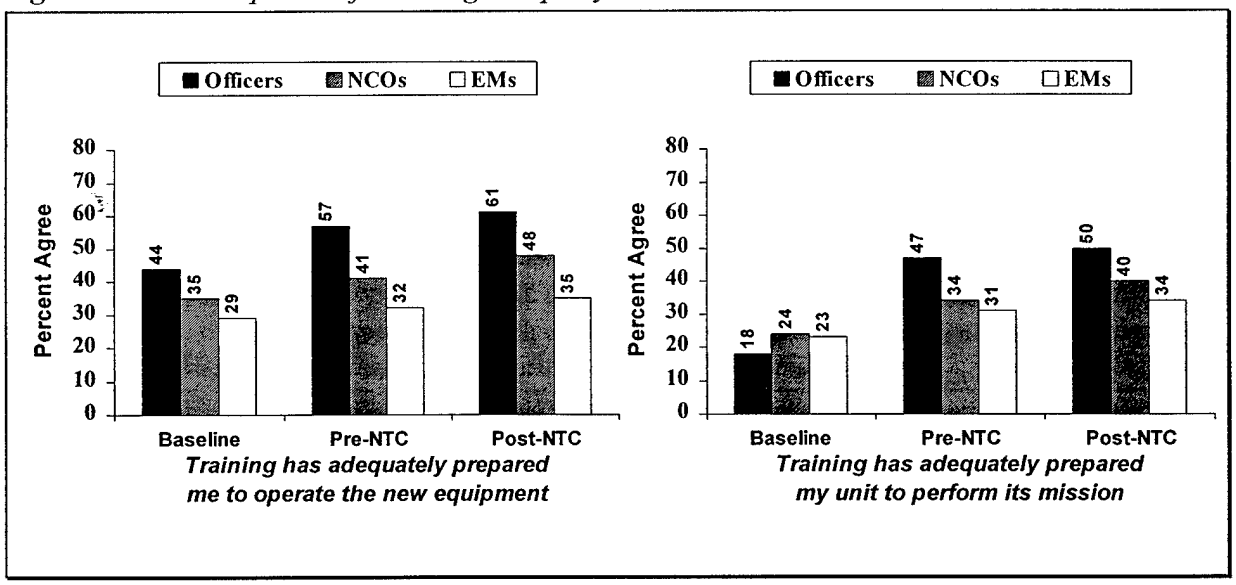
1.20.2. Adequacy of Training on the New Equipment

Three items addressed the adequacy of training received on the new equipment. The first item addressed the adequacy of the training for operating the new equipment. The second addressed the adequacy of training for unit-level performance with the equipment. The third addressed the adequacy of training for maintaining the new equipment.

Figure 6.2.2 shows the percentage of respondents who agree that training was adequate for operator and unit-level performance. Notice that the percent that agreed with these statements increased as a function of rank and phase of the assessment. However, Officers showed a greater increase in agreement over the course of the AWE than NCOs, and NCOs showed a greater increase in agreement than EMs. It is also important to note that the increase in the perceptions of training adequacy was greatest between the Baseline and Pre-NTC assessment periods, especially for unit training. Finally, the data in these two figures show that training was perceived to be more adequate for individual training than for unit-level training by all rank categories and at all three assessment periods.

Taken together, these results for the adequacy of operator and unit training clearly reflect the influence of the ramp up for the NTC rotation. Operator training began immediately and continued throughout the AWE. Unit-level training began in earnest only in the two to three month period prior to the Pre-NTC assessment. The adequacy of all training was most likely adversely affected by other mission considerations during the NTC rotation itself.

Figure 6.2.2: Perceptions of Training Adequacy



The overall perception of the adequacy of new equipment maintenance training also increased over the three assessment periods (from 25% to 31%). However, the absolute levels of perceived

adequacy for maintenance training was generally not as high as it was for operator and unit-level training, and there were no systematic differences in responses by rank. This data on maintenance training in all likelihood reflects the realities of new equipment training. In short, maintenance training was generally not provided to the soldiers and leaders in the task force; contractor support was used to address problems that occurred during operations and to provide necessary maintenance support.

Regarding maintenance support, an average of 39 percent of the respondents agreed with a statement in the survey that assessed whether an expert was available to help if questions arose about the new equipment. The level of endorsement for this item varied as a function of rank (57%, 45% and 34% for Officers, NCOs and EMs, respectively). While essentially constant over phases for EMs and NCOs, it increased from 36 to 65 percent for Officers between Baseline and Pre-NTC Phases of the study and then dropped back to 58 percent at the Post-NTC assessment. The latter effect probably reflects the increased difficulty of providing civilian experts to address equipment problems while the units were at NTC.

1.20.3. Impact of New Technology on the Jobs of Soldiers and Leaders

Five items addressed directly the impact of the new equipment on the jobs of soldiers and leaders. Three items specifically addressed whether the new technology affected characteristics of the job. The other two items assessed whether the new equipment was perceived as enhancing job performance and job satisfaction.

Figure 6.2.3 shows that most respondents agreed that the new equipment would directly affect the characteristics of their jobs (1) by increasing the amount of information they would have to handle, (2) by increasing the complexity of their jobs, and (3) by giving them more responsibility. However, in each assessment period a greater percentage of Officers than NCOs or EMs indicated that the new equipment would increase the amount of information they would have to handle and the complexity of their job. A greater percentage of NCOs than EMs agreed with these two items. There was a similar but much smaller differences due to rank for the third item that asserted the new equipment would increase job responsibility.

Across assessment phases and ranks, the highest levels of agreement on how the new equipment would change jobs occurred in terms of increases in information handling requirements. For Officers, the second highest level of agreement occurred for increases in job complexity, and the third was for increases in job responsibility. The order of these two potential changes in job characteristics was reversed for NCOs and EMs: more NCOs and EMs agreed that their job responsibility would increase than that their jobs would become more complicated.

It is important to note that while always relatively high, there was a decrease over assessment periods in the percentage of respondents agreeing that the new equipment would cause changes in these particular job characteristics. Hence, continuing involvement in the EXFOR program is associated with a smaller percentage of respondents indicating that their jobs would require more information handling, would become more complicated, and would give them more

responsibility. The decrease in impact on job characteristics over the AWE was greatest for information handing and least for job responsibility.

Figure 6.2.3: Impact of New Technology on Job Characteristics

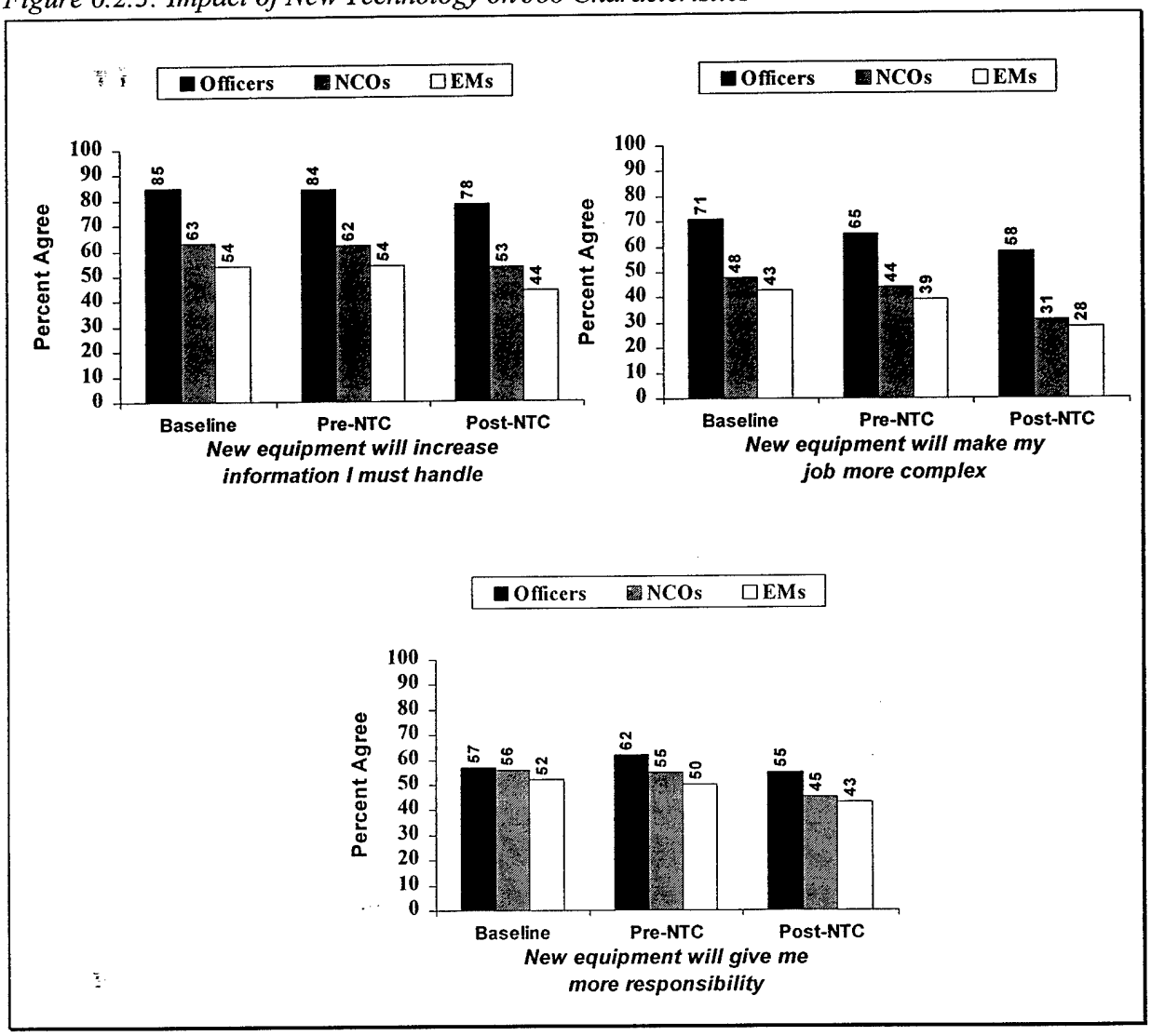
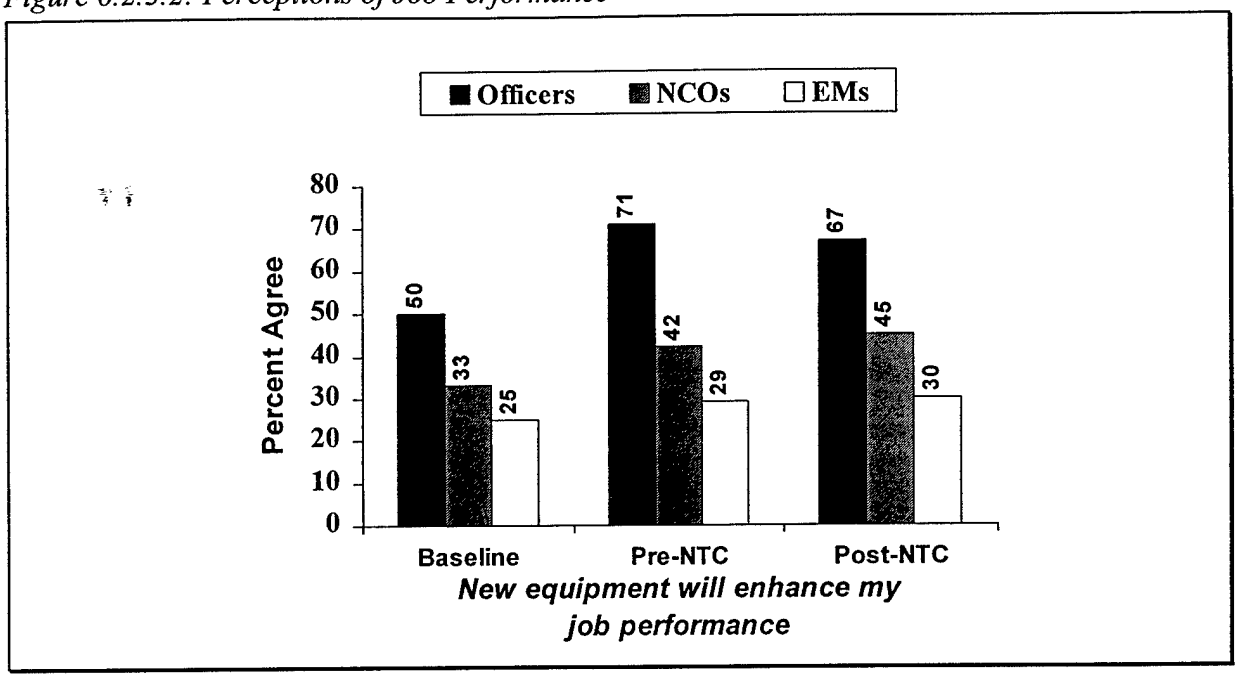


Figure 6.2.3.2 shows the percentage of soldiers and leaders who agreed with the item concerning the potential impact of the new equipment on job performance. Notice that a greater percent of NCOs than EMs and an overwhelming majority of Officers agreed that the new equipment would enhance their job performance. The levels of endorsement for this item tended to increase over phases of the assessment for all ranks of respondents. The increase from the Baseline levels to the Pre-NTC levels is particularly dramatic for Officers.

Figure 6.2.3.2: Perceptions of Job Performance



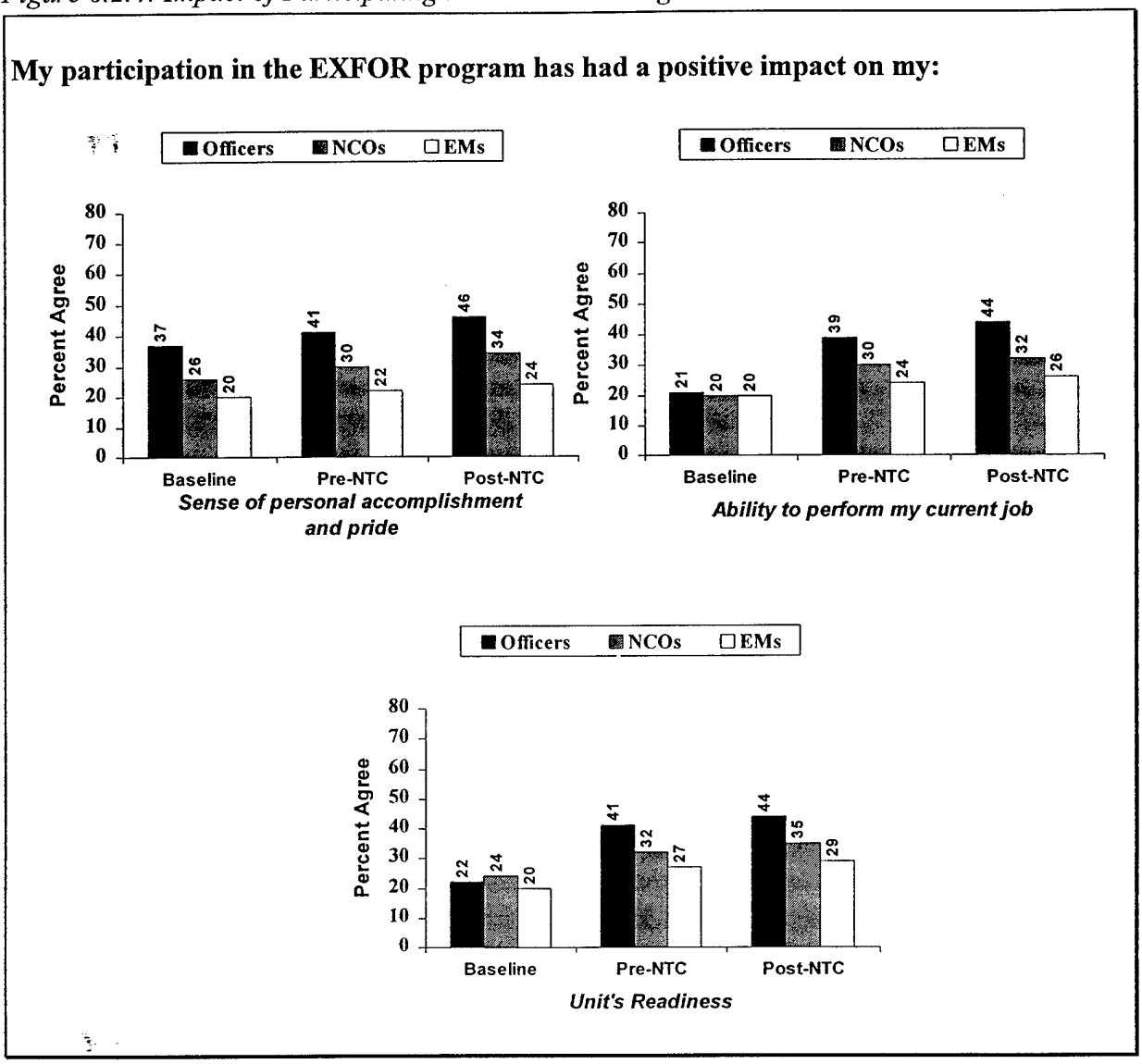
The generally positive responses to the item on job performance stand in stark contrast with those obtained for the last item in this section of the survey. This last item, which asserted that the new equipment would increase the respondent's satisfaction with his or her current job, produced the lowest absolute levels of agreement of any item in this section of the survey. Over assessment phases, agreement levels for this item were only 16, 20, and 23 percent respectively, for EMs, NCOs, and Officers. There was, at best, only a very slight increase in the percentage of agreement to this item over phases.

Two interpretations of these data for the impact of new equipment on job satisfaction are possible. On the one hand, it has already been noted and shown in Figure 5.2.1 (in the Organizational Outcome section) that respondents generally have high levels of job satisfaction. Perhaps it is unreasonable to believe that the new equipment and the potential for enhanced levels of performance would produce still further increases in job satisfaction. On the other hand, the results may simply indicate that respondents expect to perform better with the new equipment, but that they do not necessarily believe that the new equipment will make them more satisfied with their jobs.

1.20.4. Impact of Participating in the EXFOR Program

Several items assessed directly the potential impact of participation in the EXFOR program at Fort Hood on the respondent or his unit. The lead in to each of these items asserted that participation in the program had a positive impact. The results obtained with three of these items exhibited large absolute and relative effects. These three items addressed personal sense of accomplishment and pride; ability to perform current job; and unit's readiness to operate. The percentage of respondents agreeing with each of these items is shown in Figure 6.2.4.

Figure 6.2.4: Impact of Participating in the EXFOR Program



It may be seen that the percentage of respondents agreeing with each of these items varies directly as a function of rank and assessment phase. Overall, EMs show the least amount of agreement with these statements and show the smallest change over assessment phases (over all three items and all three assessment phases the average levels of agreement was 24%). During Baseline assessments, only about 23 percent of NCOs indicate agreement with these items but their levels of agreement increased to 34 percent over the subsequent assessment phases. Officers generally agreed more with each of these statements and show more variation in their responses to the three items than NCOs. Over all three phases, Officers agreed 41 percent with the item addressing a sense of accomplishment and pride versus about 34 percent with the other two items. Officers also substantially increased their levels of agreement to all three items over the course of the AWE, from an average level of agreement of 27 percent to nearly 45 percent.

In summary, the results exhibited in Figure 6.2.4 show that as a result of their continuing participation in the EXFOR program at Fort Hood, NCOs and, even more so, Officers experienced an increased sense of personal accomplishment and pride with being part of the program. This increasing sense of pride among NCOs and Officers with being part of the EXFOR program is especially significant when compared to the results described above that showed no increase in job satisfaction resulting from the new equipment per se. Over the course of the AWE, Officers and NCOs also indicate that they increasingly believed that their participation in the program would have a positive impact on their ability to perform their current jobs and on their units' readiness to perform their missions.

1.20.5. Summary of the Perceptions of New Equipment, Training, Job Impacts, and Participation

Most respondents indicate that they recognize that the new equipment is not as reliable as ultimately necessary, but also that it was getting better and leading to positive changes for the Army, even over the short-term duration of the AWE. In part, this latter set of perceptions was probably due to actual improvements that were being made to some items of new equipment over the course of the AWE. In part, these perceptions of the respondents were also the result of the continuing training provided to them on how to operate and use the information that was gained from the new equipment.

The respondents generally agreed that the individual operator training and unit-level training they received was adequate or at least becoming more adequate. The levels of agreement to these training items began at rather modest levels in the Baseline assessment period but increased considerably by the Post-NTC assessment period. However, the respondents also generally agreed that the nature of their jobs would change as a result of the new equipment. They indicated their jobs would require handling more information, would become more complex, and would give them greater levels of responsibility. The percentage of respondents agreeing that these changes would occur in their jobs began at a quite high level at the Baseline assessment, and, while still high at the Post-NTC assessment, the level of agreement decreased steadily over the AWE.

While the nature of their jobs were perceived to change in what some would consider to be a negative manner, the respondents also generally agreed that their levels of performance would increase. This perception of enhanced performance with the new equipment began at low levels in the Baseline sample and increased steadily over the AWE. Finally, over the course of the AWE there was an ever increasing number of respondents indicating they believed their participation in the EXFOR program would increase their sense of pride at being part of it, would increase their job performance, and increase the readiness of their units.

In short, virtually all of the items used to assess the perceptions of soldiers and leaders toward their TF XXI experiences indicated that as they became more familiar with the new equipment, they appeared to be less threatened by it, and appreciated the positive impact it would have on them, their units, and the Army as a whole. The one item in the survey, which did not produce results in conformity with this otherwise common trend, was the item that proposed the new equipment would increase their levels of job satisfaction. This item gained very low levels of

endorsement at every assessment period. It is not clear in these perception data if this lack of endorsement was due to the fact that their job satisfaction levels were already so high that there was little room for improvement in this index, or if collateral aspects of new technology insertion process (e.g., high levels of work hours and work-family conflict) counteracted or negated the expected increases in job satisfaction.

1.21. Perceptions of the Long-Term Impact of Force XXI on Army Personnel Issues

Eight survey items were concerned with long-term impacts of the Force XXI program on Army personnel issues. Three of these items address long-term personal and training impacts; three items address issues related to the Army's need to retain qualified soldiers and leaders, and two items address recruitment issues. The following paragraphs address the results obtained for these three categories of long-term impacts.

1.21.1. Long-Term Personal and Training Impacts

Three statements asserted that the long-term impact of the Force XXI program would: (1) allow soldiers more personal time to spend with families and friends; (2) reduce the time required for field training, and (3) require more extensive training of soldiers of all grades and ranks. The results clearly show that only a small percentage of respondents agreed with the first two of these statements (a large majority disagree with the items) and a very large majority agreed with the third. These effects were relatively constant over the three assessment periods but did vary as a function of the respondent's rank category. For Officers, NCOs and EMs, respectively, the results are as follows: (1) for more personal time for family and friends, 6, 12, and 14 percent agree (and 70, 59, and 54% disagree); (2) for reduce time for field training, 6, 16, and 18 percent agree (and 82, 56, and 52% disagree); and (3) for more extensive training, 92, 75, and 63 percent agree.

1.21.2. Long-Term Impacts on Retention

Three items asserted that the long-term impact of TF XXI would: (1) provide soldiers with more opportunities to enhance their Army careers; (2) give soldiers skills that help them get good jobs after they leave the Army; and (3) encourage soldiers to stay in the Army until retirement. A large number of respondents agreed with each of the first two items. The respondents generally reported that Force XXI would be good for their job opportunities (whether in or out of the Army). However, while the percentage of agreement for the first item (i.e., good for Army careers) was equal and constant over assessment periods for NCOs and EMs (38%), Officers agreed with the item more than the enlisted personnel and increasingly so over successive assessment periods (41, 46, and 52%, respectively). For the second item (i.e., good for post-Army jobs), there were no differences in levels of agreement as a function of assessment phase. There also was no difference between NCOs and EMs (39%), but Officers agreed more than either category of enlisted personnel (61%). For the third item, there was no effect of assessment phase or for rank category. Overall, very few respondents (13%) agreed and a large number (42%) disagreed with the assertion that Force XXI would encourage soldiers to stay in the Army.

1.21.3. Recruitment Impacts

Two items stated that the long-term impact of the Army-wide Force XXI program would: (1) make it more important for the Army to recruit high quality soldiers, and (2) make it easier for the Army to recruit high quality soldiers. The obtained levels of agreement with these two items were stable over assessment periods. There was general agreement with the first item that varied as a function of rank (46, 52, and 78% agreement for EMs, NCOs, and Officers, respectively). On the other hand, there was a high level of equivocation for the second item, especially for EMs and NCOs, who did not differ in there levels of agreement and disagreements (23 and 26%, respectively). Officers were less equivocal, agreeing with the statement twice as much as they disagreed with it (32 and 16%, respectively).

1.21.4. Summary of Perceptions of Long-Term Impacts on Army-wide Personnel Issues

Clearly, the soldiers and leaders of TF XXI expressed the belief that the Force XXI program would lead to increase training requirements across the Army but, at a minimum, no improvements in personal or family time. The respondents generally, and Officers in particular, also indicated that the Force XXI program would open up new jobs and new career opportunities for soldiers, both within the Army and after separation from the Army. These respondents also stood together in rejecting the notion that Force XXI would create an environment that would keep soldiers in the Army until they retired. Finally, while these respondents generally perceived an increased need to recruit high quality soldiers, they did not generally accept the proposition that the new technology would make it easier to get these high quality soldiers.

Taken together, the responses obtained to these items strongly suggest that special attention should be directed toward the impact of Force XXI technology on Army-wide personnel programs and policies. The respondents perceived that the new knowledge, skills, and attitudes acquired by soldiers and leaders may enhance Army careers, but they also perceive that these same attributes will increase career opportunities in the civilian sector. Furthermore, perhaps because of the perceived need for more extensive training with no increase in family time, there is a general perception that there will be no increase incentive for soldiers and leaders to stay in the Army or for new high quality personnel to be open to recruitment into the Army.

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Appendix A

4th Infantry Division Survey

Walter Reed Army Institute of Research
Washington, DC 20307-5100
and the
U.S. Army Research Institute
for the Behavioral and Social Sciences
5001 Eisenhower Avenue
Alexandria, VA 22333-5600

1. PURPOSE

The U.S. Army is currently involved in a force modernization program with the 4th Infantry Division(4ID). This program may create unanticipated positive and negative effects on soldiers and their families. In order to identify and measure the impact of these possible effects, the Walter Reed Army Institute of Research (WRAIR) and the U.S. Army Research Institute (ARI) are conducting a survey of 4th ID soldiers. The purpose of this survey is to gather information about soldiers' perceptions of the possible effects of the modernization program in the 4th ID.

2. PRIVACY

Under NO CIRCUMSTANCES will any information identifying individuals be released to anyone. The staff of the WRAIR and ARI will combine your answers with those of many others to report how different groups perceive the possible efects of the modernization program in the 4th ID.

Your participation in this survey is voluntary, and you will not be penalized should you decide not to respond. You may skip any questions to which you object, but please answer questions honestly.

3. DISCLOSURE

I consent to the use of my answers by the staff of the Walter Reed Army Institute of Research and the U.S. Army Research Institute to compile statistics of group data. I understand that I have the right to withdraw my consent to participate in this study at any time.

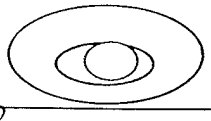
_____Name (Print) _____Date

_____Signature

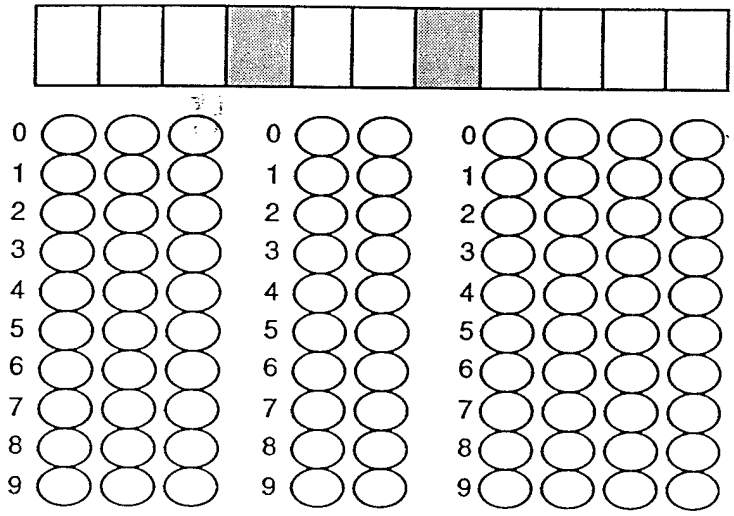
4. AUTHORITY

10 United States Code ections 136 and 5; U.S.C. 552a; Executive Order 9397

Please use a #2 pencil and fill in the bubble which corresponds to your answer. Please be sure to fill in the middle of the bubble like the example below.
You do not need to fill in the whole bubble.
PROPER MARK:



SOCIAL SECURITY NUMBER Please write the numbers in the boxes and fill in the bubbles below.



Please indicate **YOUR UNIT:**

Battalion/Squadron _____

Company/Battery/Troop: _____

Platoon: _____

Section/Squad/ Crew: _____

Primary MOS/SSI:

Are the majority of your duties **related to your primary MOS?**

- yes
- no

In the last 3 years, how often have you **deployed for 3 months or more?**

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8 or more

ETHNIC GROUP :

- White
- African American
- Hispanic
- Asian
- Multi-racial
- Other

RANK/GRADE:

- E 1 2 3 4 5 6 7 8 9
- O 1 2 3 4 5 6 7 8 9
- WO 1 2 3 4 5

What is your current **MARITAL STATUS?**

- Single
- Married
- Legally Separated
- Divorced
- Other

How long have you been **in your current unit?**

- 0-3 months
- 4-6 months
- 7-12 months
- 13-18 months
- 19-24 months
- More than 2 years

GENDER:

- Male
- Female

Highest level of **CIVILIAN EDUCATION?**

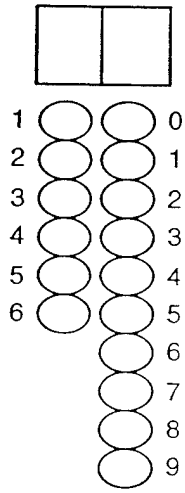
- Some High School
- High School Diploma/GED
- Vocational/Technical Diploma
- Associates Degree
- College Graduate (4 years)
- Graduate Degree

Did you previously **DEPLOY TO:**

YES

- Vietnam
- Grenada (Urgent Fury)
- Panama (Just Cause)
- Persian Gulf Region (ODS)
- Florida (Hurricane Andrew)
- Somalia (Restore Hope)
- Haiti (Uphold Democracy)
- Kuwait (Vigilant Warrior)
- Macadonia (Able Sentry)
- Bosnia (Joint Endeavor)
- Other _____

AGE (last birthday):



Number of **CHILDREN** living at home:

0 1 2 3 4 5+

Which of the following best describes your current NCO or Warrant/0fficer position?

◯ Does not apply

NCO Position

◯ SGM/CSM
◯ 1SG
◯ Platoon Sergeant
◯ Staff NCO
◯ Squad Leader
◯ Other position (specify)_____

Officer Position

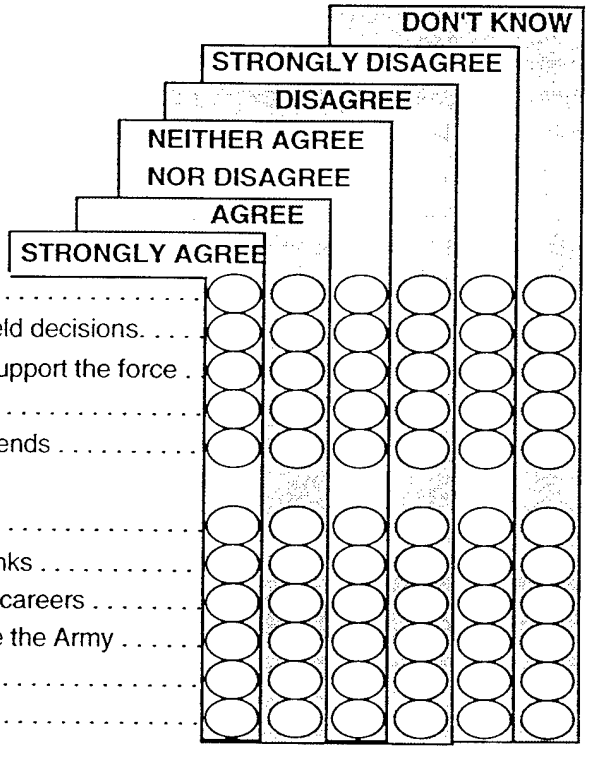
◯ Commander
◯ Executive Officer
◯ Staff Officer
◯ Platoon Leader
◯ Other Position (specify)_____

The terms "Force XXI", "Task Force XXI", "Experimental Force" and "EXFOR" are often used interchangably. In this survey, these terms refer to the Army program for putting new advanced (computer based) equipment and systems into Army units and forces.

How familiar are you with the Army's EXFOR program at Fort Hood?

◯ Not at all ◯ A little bit ◯ A moderate amount ◯ Quite a bit ◯ Extremely

Please use the scale on the right side of the page to indicate the extent to which you agree or disagree with the following statements about the EXFOR program.



The LONG-TERM impact of the advanced technology associated with EXFOR will:

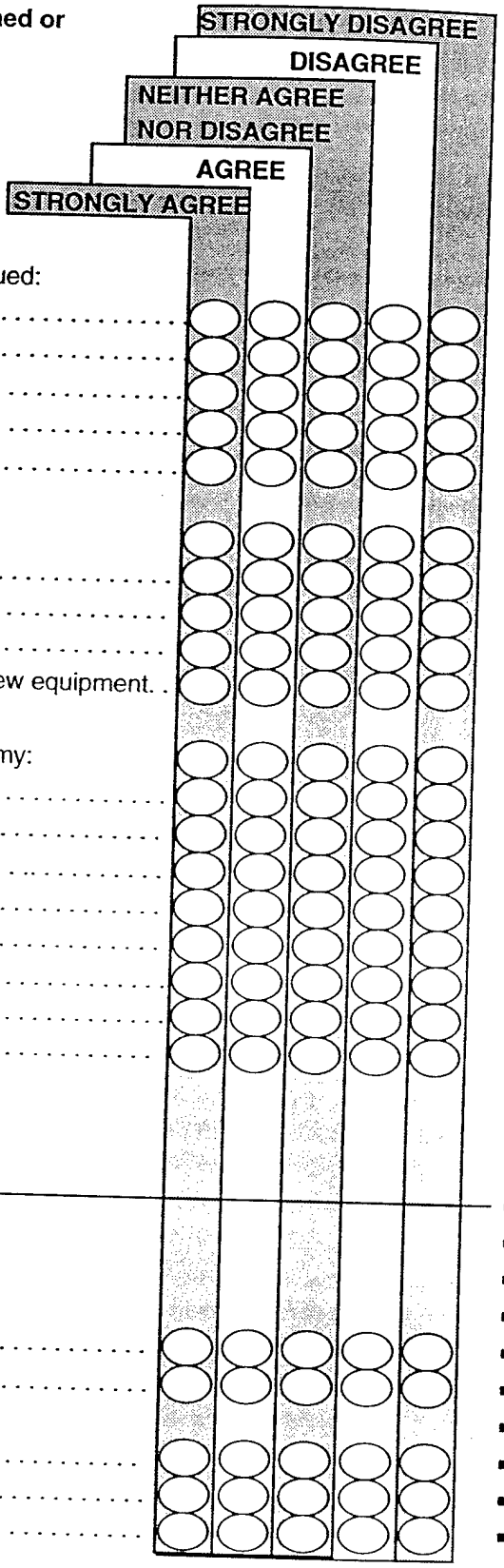
Increase the Army's ability to find and destroy the enemy . . . . . ◯ ◯ ◯ ◯ ◯ ◯
Increase the speed at which we can make and execute battlefield decisions. . . . ◯ ◯ ◯ ◯ ◯ ◯
Improve the Army's ability to provide supplies and services to support the force . ◯ ◯ ◯ ◯ ◯ ◯
Increase the Army's ability to survive on the battlefield. . . . . ◯ ◯ ◯ ◯ ◯ ◯
Allow soldiers more personal time to spend with families and friends . . . . . ◯ ◯ ◯ ◯ ◯ ◯

Reduce the time required for field training. . . . . ◯ ◯ ◯ ◯ ◯ ◯
Require more extensive training of soldiers of all grades and ranks . . . . . ◯ ◯ ◯ ◯ ◯ ◯
Provide soldiers with more opportunities to enhance their Army careers . . . . . ◯ ◯ ◯ ◯ ◯ ◯
Give soldiers skills that help them get good jobs after they leave the Army . . . . . ◯ ◯ ◯ ◯ ◯ ◯
Encourage soldiers to stay in the Army until retirement . . . . . ◯ ◯ ◯ ◯ ◯ ◯
Make it easier for the Army to recruit high quality soldiers . . . . . ◯ ◯ ◯ ◯ ◯ ◯

As part of the EXFOR program, have you or your unit been issued new advanced (computer-based) equipment?

◯ **YES** → fill out only questions in **Section A** (next page)
◯ **NO** → fill out only questions in **Section B** (next page)

The term "UNIT" as used in this survey refers to the company, battery, or troop (line, support, or headquarters) to which you are assigned or in which you perform the majority of your work.



Section A

The new advanced technology equipment that I/my unit has been issued:

- Is reliable
- Will enhance my performance
- Will lead to a significant positive change in the Army
- Has increased my satisfaction with my current job
- Will need to be significantly improved over the next few years.

The training I and my unit have received on this equipment has:

- Adequately prepared me to operate the new equipment
- Adequately prepared me to maintain the new equipment
- Adequately prepared my unit to perform its mission

There is an expert available to help me if I have questions about the new equipment.

My participation in the EXFOR program has had a positive impact on my:

- Sense of personal accomplishment and pride
- Personal satisfaction with being a member of the active Army
- Ability to perform my current job
- Belief that the Army can plan and control its future
- Working relationships with other members of my unit
- Unit's cohesiveness.
- Unit's readiness to plan, conduct, or support combat operations
- Unit's relationship with other units in this division

GO TO THE NEXT PAGE

Section B

I am satisfied with the equipment my unit has to accomplish its mission.

I am pleased that my unit is NOT getting new EXFOR equipment.

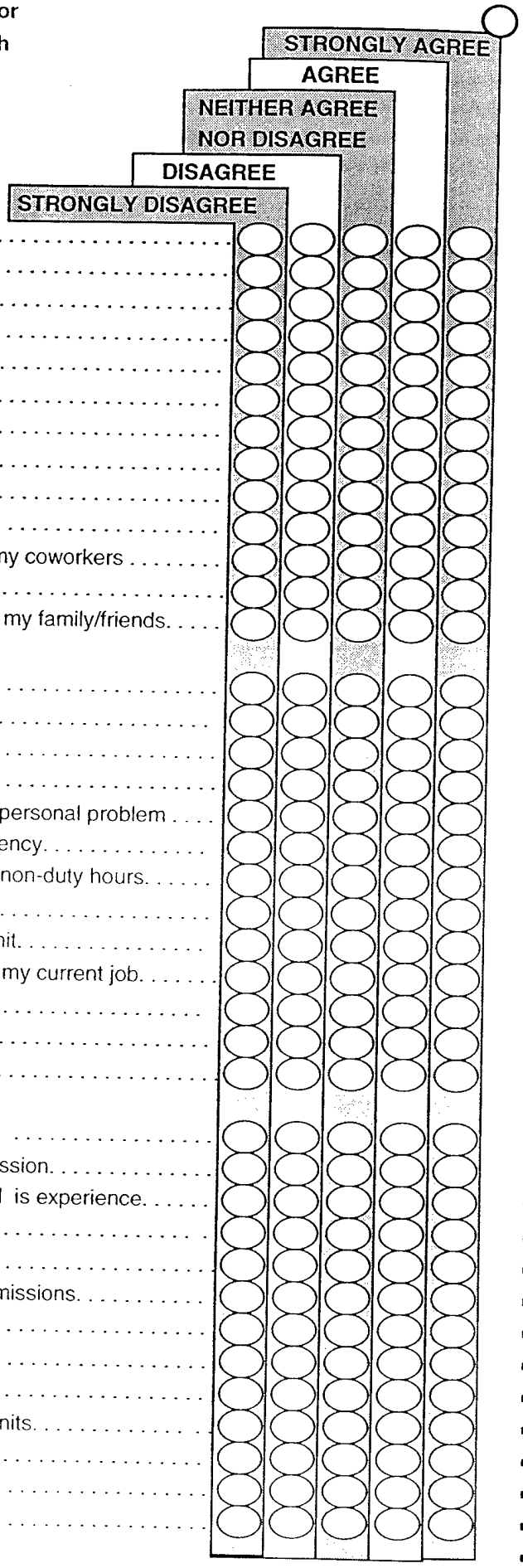
The fact that other units are getting new EXFOR equipment has:

- Lowered my unit's readiness.
- Lowered morale within my unit.
- Negatively affected relationships among units.

GO TO THE NEXT PAGE

The term "UNIT" as used below refers to the company (line or support or HHC/HHB) to which you are assigned or in which you perform the majority of your work.

Please use the following scale to tell us how much you AGREE or DISAGREE with the statements below.

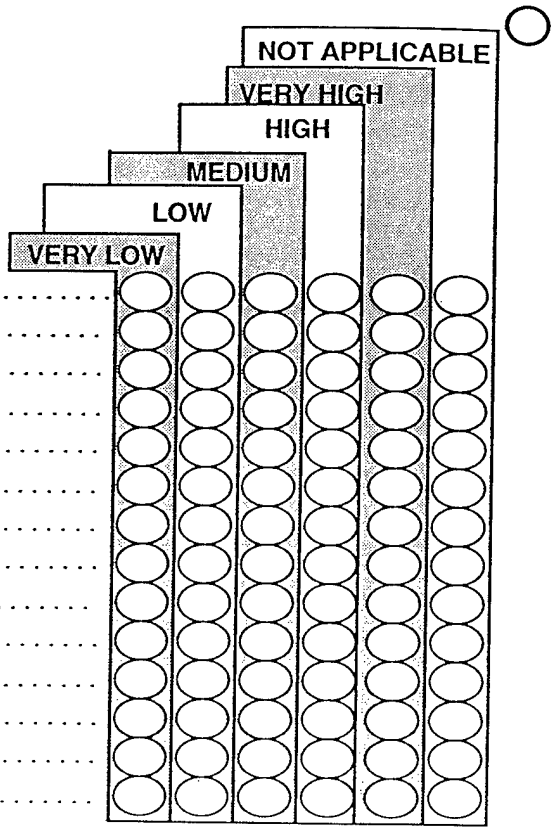


I understand my unit's current mission.
The amount of work I am asked to do is fair.
I never seem to have enough time to get everything done.
What I do helps accomplish my unit's mission.
Given my unit's mission, the amount of training we do makes sense.
I know exactly what is expected of me on my job.
I am very satisfied with my job in the Army.
I have real confidence in my unit's ability to perform its mission.
I am proud to tell others that I am part of the Army.
I did not experience any problems adjusting to my current job.
I feel confident that my skills and abilities equal or exceed those of my coworkers
I am satisfied with the kind of work I do on my job.
I believe that the leaders in my unit allow enough time to spend with my family/friends.

I believe in the value of our unit's mission.
I talk up the Army to my friends as a great organization
Most of my tasks are clearly defined.
My closest relationships are with soldiers in my unit.
There are soldiers in my unit that I can go to for help when I have a personal problem
There are soldiers in my unit that would lend me money in an emergency.
There are soldiers in my unit that I choose to spend time with during non-duty hours.
There are soldiers in my unit that I would consider my friends.
If we went to war tomorrow, I would feel good about going with my unit.
Based on my experiences, I am confident I can successfully perform my current job.
I know what I have to do to perform my job.
I like my job in the Army
I really care about the fate of the Army.

Housing on or around this post is acceptable.
I feel that what I am doing is important for accomplishing my unit's mission.
I have all the technical knowledge I need to perform my job, all I need is experience.
I have so much work to do, I cannot do everything well.
My unit is regularly briefed by our leaders about our missions.
My leaders regularly brief our unit on what we have achieved on our missions.
My leaders keep us informed about our missions.
I think the level of training in my unit is high.
I am making a real contribution to accomplishing my unit's mission.
I think my unit would do a better job in combat than most U.S. Army units.
My current job is well within the scope of my abilities.
My unit's mission makes a real contribution to the Army as a whole.
My chain of command really cares about families in my unit.

Think about your life right now and rate how much TROUBLE OR CONCERN is caused by:



Marital or relationship problems.
Your child or children.
Financial problems.
Medical problems of your family or close friend.
Recent birth of a child.
Not knowing how long your work day will be.
Changes in your work environment.
Amount of time spent away from your family.
Amount of sleep you get.
Number of hours you work.
Personal health matters.
Possibility that you will fail on your job.
Promotion opportunities.
My or my spouse's pregnancy.

Please use the following scale to tell us how much you AGREE or DISAGREE with the statements below:

1=Strongly Disagree	2=Disagree	3=Neither Disagree or Agree	4= Agree	5=Strongly Agree

The officers in my unit . . .

	1	2	3	4	5	Does not Apply
establish clear work objectives						
are interested in my personal welfare						
delegate work effectively						
let soldiers know when they have done a good job						
avoid micromanaging soldiers' work						
are interested in what I think and how I feel about things						

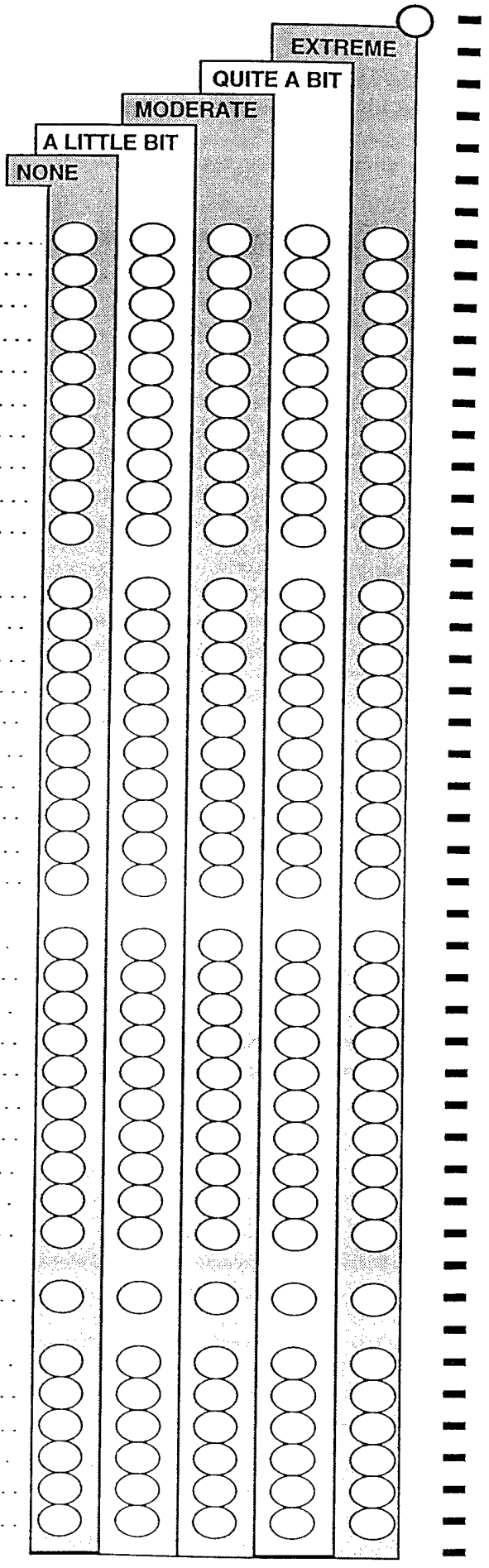
The NCOs in my unit . . .

	1	2	3	4	5
establish clear work objectives					
are interested in my personal welfare					
delegate work effectively					
let soldiers know when they have done a good job					
avoid micromanaging soldiers' work					
are interested in what I think and how I feel about things					

I believe that . . .

	1	2	3	4	5
My unit leaders help families get Army MWR family support.					
My unit has an active Family Support Group (FSG)					
4th I.D. leaders show concern for families					
I feel satisfied that my marriage is going well.					
My current duty requirements conflict with my family life					

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select the bubble that best describes how much DISCOMFORT that problem has caused you DURING THE PAST WEEK.



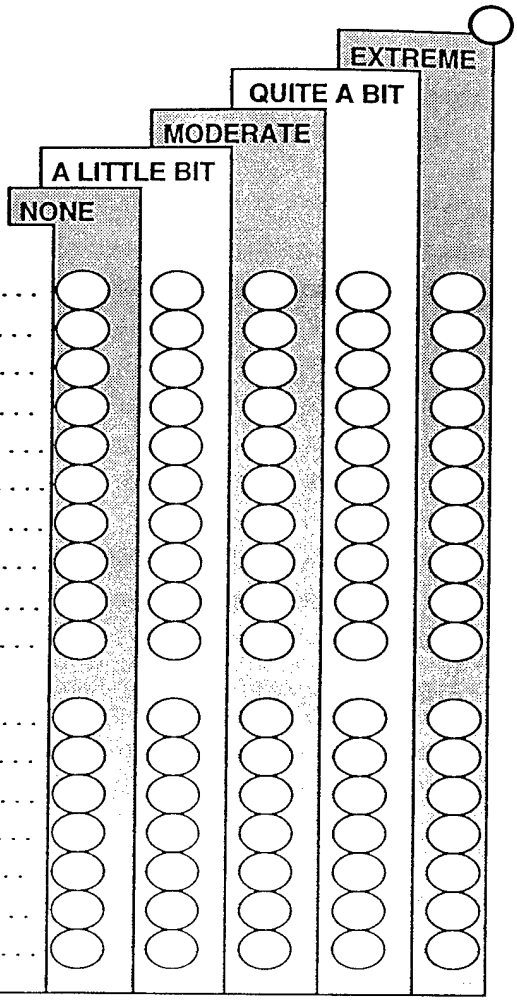
Nervousness or shakiness inside
Faintness or dizziness
The idea that someone else can control your thoughts
Feeling others are to blame for most of your troubles
Trouble remembering things
Feeling easily annoyed or irritated
Pains in the heart or chest
Feeling afraid in open spaces
Thoughts of ending your life
Feeling that most people cannot be trusted

Poor appetite
Suddenly scared for no reason
Temper outbursts that you could not control
Feeling lonely even when you are with people
Feeling blocked in getting things done
Feeling lonely
Feeling no interest in things
Feeling blue
Feeling fearful
Your feelings being easily hurt

Feeling that people are unfriendly or dislike you
Feeling inferior to others
Nausea or upset stomach
Feeling that you are watched or talked about by others
Trouble falling asleep
Having to check or double-check what you do
Difficulty making decisions
Feeling afraid to travel
Trouble getting your breath
Hot or cold spells
Having to avoid certain things, places or activities because they frighten you

Your mind going blank
Numbness or tingling in parts of your body
The idea that you should be punished for your sins
Feeling hopeless about the future
Trouble concentrating
Feeling weak in parts of your body

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select the bubble that best describes how much DISCOMFORT that problem has caused you DURING THE PAST WEEK.



Feeling tense or keyed up
Thoughts of death or dying
Having urges to beat, injure or harm someone
Sleep that is restless or disturbed
Having urges to break or smash things
Feeling very self-conscious with others
Feeling uneasy in crowds
Never feeling close to another person
Spells of terror or panic
Getting into frequent arguments

Feeling nervous when you are alone
Others not giving you proper credit for your achievements
Feeling so restless you couldn't sit still
Feelings of worthlessness
Feeling that people will take advantage of you if you let them
Feelings of guilt
The idea that something is wrong with your mind

How many weekends a month do you usually work?

None
1
2
3
4

How many days do you usually work in a week?

4
5
6
7

On average, how many HOURS A DAY have you worked in the PAST WEEK?

7 or less
8
9
10
11
12
13
14
15
16
17
18 or more

On average, how many HOURS A NIGHT have you slept in the PAST WEEK?

1 or less
2
3
4
5
6
7
8 or more

How many alcoholic drinks (1 =1 beer, 1 glass of wine, 1 shot) do you have in a typical WORK DAY?

0
1-2
3-4
5-6
7-8
More than 8

On average, how many cigarettes do you smoke PER DAY?

None
1-5
6-10
11-15
16-20
21-25
26-30
31-34
35-40
More than 40

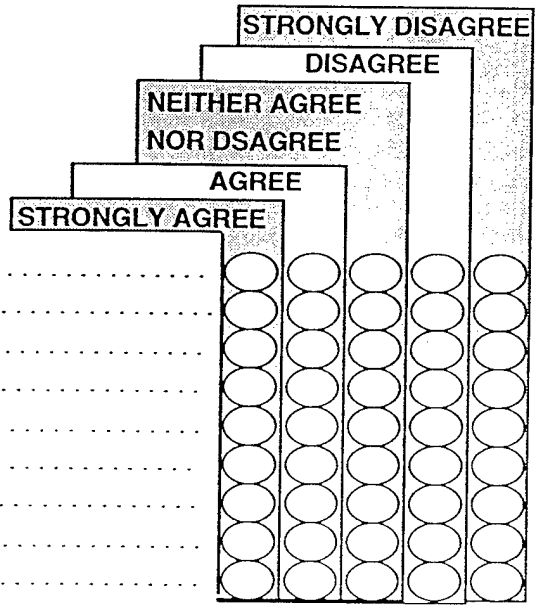
How many alcoholic drinks do you have on a typical WEEKEND DAY?

0
1-2
3-4
5-6
7-8
More than 8

Which of the following describes your active duty Army Career intentions:

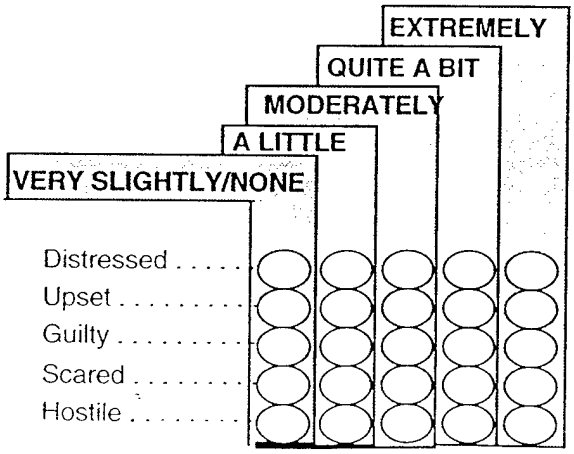
- PROBABLY stay in until retirement
- DEFINITELY stay in until retirement
- PROBABLY stay in beyond my present obligation, but not necessarily to retirement
- DEFINITELY stay in beyond my present obligation, but not necessarily to retirement
- DEFINITELY leave upon completion of my present obligation

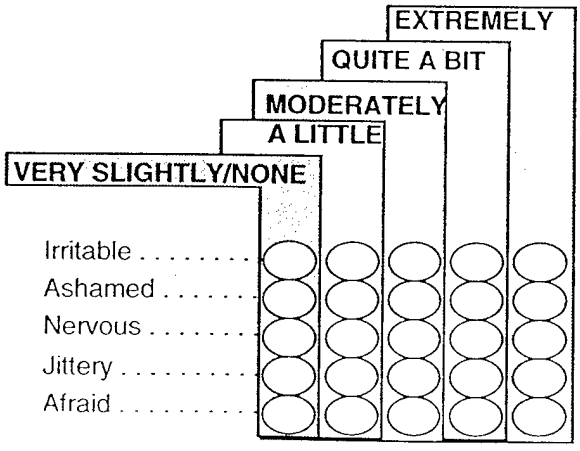
Please use the scale on the right side of the paper to answer the following questions.



I fear reporting a mistake more than making one. . . . . .
My leaders sincerely want to know what is wrong . . . . . .
Private prayer helps me face life . . . . . .
My unit is a "zero defects" organization . . . . . .
Army values are crystal clear to me . . . . . .
My leaders expect only good news . . . . . .
Participation in religious services is important to me . . . . . .
I am satisfied with the current level of trust in this unit . . . . . .
I can count on my unit chaplain to be there for me and my family . . . . . .

This scale consists of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past week.





Please indicate if you experienced the following physical health symptoms over the PAST MONTH? If YES, how often?

	NO	YES		
		A Little	Often	Very Often
Head colds	○	○	○	○
Sinus troubles	○	○	○	○
Sore throat	○	○	○	○
Constipation	○	○	○	○
Headaches	○	○	○	○
Back problems	○	○	○	○
Allergies	○	○	○	○
Skin rash	○	○	○	○
Cough	○	○	○	○
Chills/Fever	○	○	○	○
Diarrhea	○	○	○	○
Aching joints and bones	○	○	○	○
Stomach intestinal upset	○	○	○	○
Eye/ear/nose problems	○	○	○	○
Muscle aches or cramps	○	○	○	○
Hoarseness	○	○	○	○
Dizziness	○	○	○	○
Weight loss/gain	○	○	○	○
Menstrual difficulties (women only)	○	○	○	○
Urinary infections	○	○	○	○
Sweaty/wet/clammy hands	○	○	○	○
Muscle twitching/trembling	○	○	○	○
Rapid heartbeat (not exercising)	○	○	○	○
Shortness of breath (not exercising)	○	○	○	○

Other (please write in): _____

Please use this space to write your POSITIVE and NEGATIVE comments about your current assignment. Use the back of this page if needed. (Please ignore the DO NOT WRITE ON THIS SIDE instruction.)

Thank you for your time!