LEVEL II

Research Problem Review 77-3

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WOMEN SOLDIERS IN KOREA: COMMAND CONCERNS ABOUT PREGNANCY, FACILITIES, AND OTHER ISSUES

U. S. Army

Research Institute for the Behavioral and Social Sciences

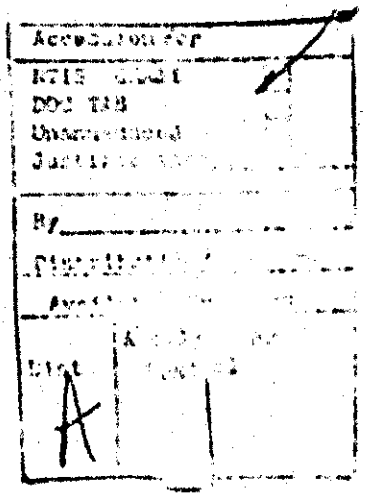
November 1977

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

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

J. E. UHLANER
Technical Director

W. C. MAUS
COL, GS
Commander



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Soldier Productivity

(16) Army Project Number 2Q762717A767

Research Problem Review 77-3

(14) ARI-RES-PROBLEM-REV-77-3

(6) WOMEN SOLDIERS IN KOREA: COMMAND CONCERNS ABOUT PREGNANCY, FACILITIES AND OTHER ISSUES

(10) Stanley F. Bolin and John S. Cowings
U.S. Army Research Institute for the Behavioral and Social Sciences

and

Lois A. Johns

Stanley F. Bolin, Chief
ARI Field Unit, Fort Hood, Texas

(12) 33

(11) November 1977

Approved By:

E. Ralph Dusek, Director
Individual Training and Performance
Research Laboratory

J. E. Uhlaner, Technical Director
U.S. Army Research Institute for
the Behavioral and Social Sciences

Research Problem Reviews are special reports to military management. They are usually prepared to meet requests for research results bearing on specific management problems. A limited distribution is made - primarily to the operating agencies directly involved.

FOREWORD

New Department of Defense policies toward greater utilization of women were established in April 1972. All military specialties were to be opened to women, except those involving direct combat or unusual physical demands. This policy had a delayed impact on the Eighth United States Army (EUSA) in Korea. From 1974 to the Spring of 1976, the number of women assigned to EUSA increased at an accelerated rate from a typical strength of some 400 to more than 1,200.

These women soldiers were assigned all over the Korean peninsula. In earlier years, women in Korea had been concentrated in a few units in the Seoul area, working together in administrative or medical fields. The new non-traditional MOS and equal opportunity policy sent women wherever they were needed by MOS, one by one. Women were assigned as company clerks and cooks, for instance, to units where such positions had been filled previously by men. EUSA has been an Army of men performing under the threat of hostile enemy action. There were many obvious problems for women soldiers and for the Eighth Army in this situation.

To identify problems of women soldiers in Korea and to determine which required specific command action and which a more general training effort, two questionnaire surveys were conducted in summer and fall of 1976 at the direction of the Chief of Staff EUSA. The Far East Field Unit of the Army Research Institute for the Behavioral and Social Sciences (ARI) was asked to develop and conduct the surveys. The request was made in view of ARI's many years experience in manpower systems management, most recently in the area of military careers for women. The surveys were made immediately after EUSA's first year of experience under the new policy. Results indicated a generally high level of satisfaction among troops and commanders of units employing women soldiers, as well as specific problem areas. ARI Research Memorandums 77-16, "Women Soldiers in Korea: Troop Viewpoints" and 77-17, "Women Soldiers in Korea: Commanders' Viewpoints" describe the surveys in detail. The present Research Problem Review summarizes and analyzes the problem areas which particularly concerned unit commanders.

Research was accomplished under Army Project 2Q762717A767, with the particular cooperation of the U.S. Army Medical Command, Korea.

J. E. UHLANER
Technical Director

WOMEN SOLDIERS IN KOREA: COMMAND CONCERNS ABOUT PREGNANCY, FACILITIES AND OTHER ISSUES

BRIEF

Requirement:

To determine how Army policy on pregnancy affected the general acceptance of women soldiers by unit commanders in the Eighth U.S. Army (EUSA) in relation to other issues. Survey research regarding women soldiers in Korea showed general satisfaction among troops and general acceptance of women soldiers by their commanders. Yet significant practical problems were associated with pregnancy and the need to provide separate facilities for women.

Procedure:

Responses to the commanders' survey included volunteered descriptions of problems experienced by commanders whose units included women soldiers. Mutually exclusive categories of command concerns were developed by sorting the comments of 108 commanders on a successive priority basis. Priority one was pregnancy (mentioned by 23 commanders). Priority two was facilities for women (20 commanders). Priority three was any other problem (20 commanders). The remainder (45 commanders) did not mention problems. The priority concerns were analyzed as a joint function of the numbers and percentages of women assigned to a commander's unit. They were sorted into units with most women (above the median in number and percent), with fewest (below both medians), and those above one median and below the other.

Findings:

Commanders with most women (more than six, representing more than 8% of unit strength) were most often concerned about pregnancy in relation to other commanders and other priority problems.

Commanders with fewest women (six or fewer, representing 8% or less of unit strength) were most often concerned about facilities for women in relation to other commanders and other priority problems.

Commanders of units showing mixed numbers and percentages of women were most often concerned about problems other than pregnancy or facilities. The other problems included sick call, strength, isolated duty, dependents, and stereotyped sex-role behavior. Sex-role behavior inappropriate to soldiers in the chain of command was the most common concern.

Utilization of Findings:

Current policy permitting women soldiers to remain on duty during pregnancy had the greatest negative impact among commanders of units where women were most numerous. Re-examination of pregnancy policy is indicated.

Commanders with fewest women soldiers were most concerned about providing facilities for women.

A trade-off solution between problems of pregnancy and facilities might be to assign 6 to 9 women to a unit keeping the percentage between 5 and 10%. In view of the general satisfaction of troops and acceptance by commanders, the other problems may be resolved case by case with further training and experience.

WOMEN SOLDIERS IN KOREA: COMMAND CONCERNS ABOUT PREGNANCY, FACILITIES AND OTHER ISSUES

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BACKGROUND

Two questionnaire surveys were conducted during the summer and fall of 1976 at the direction of the Chief of Staff EUSA. These surveys were described in two reports under the same general title, Women Soldiers in Korea, Bolin, Johns & Covinge, 1977. One report describes troop viewpoints. The other report describes commander viewpoints regarding the expanded roles for women soldiers as those roles have been experienced in Korea. The timing of the surveys is important. They follow the first year's experience with larger numbers of women who were assigned all over Korea in both traditional and non-traditional duties for women soldiers.

This report is focused on special priority concerns of the command. The earlier reports demonstrated that there was a generally high level of satisfaction among troops and commanders of units employing women soldiers. Certain specific problem areas were identified for command-wide attention. Certain other areas appeared to require longer-term training and education efforts.

Troop Views.

Women soldiers made it clear that they wanted special attention paid to their needs at Army clubs, post exchanges and in recreation services. Women soldiers also appeared to need longer-term attention to ease the emotional and intellectual shock of confronting an oriental culture which does not generally favor changing or expanded roles for women.

There was also evidence of a kind of emotional and intellectual shock involved in the very process of living and working out the kinds of behaviors needed to realize the goals of equal opportunity for women. Stereotyped sex-role behavior was practiced by both men and women as well-learned habits prevailed against good intentions.

But women described themselves as being as well satisfied as men in similar duties in the same units. There was an apparent higher satisfaction expressed by many men serving in duties traditional for women, such as administrative/clerical, medical duties. Thus, the analysis of troop views might effect a conclusion that almost no differences exist between men and women regarding on-duty and off-duty satisfaction.

Commander Views.

The analysis of commander questionnaires showed that most commanders were satisfied with having women in their units. Taking all commanders as a group, the frequencies of mention did not suggest widely held concerns. Moreover, the problems mentioned were easily predictable sources of concern.

Physical/Medical was the most often mentioned category. The category more accurately might have been called gynecological since most comments were about pregnancy and menstrual disorders. About 26% of the commanders wrote about this area.

The requirement for separate facilities (billets and latrines) was mentioned by 24% of the commanders.

Stereotyped sex-role behavior by both men and women was seen and reported by 15% of commanders as a potential threat to good military discipline and order. This category includes emotional displays such as crying, seeking special preference as a woman, overprotection of women by men, and flirting or trading on possible sexual favors by both men and women.

About 10% of the commanders reported problems related to physical strength or isolated/hazardous duty assignments.

Over 60% of commanders failed to use their questionnaires to identify problems in writing. In view of the generally positive opinions expressed about women soldiers, this lack of comment may be taken as further evidence of general satisfaction with women soldiers. On the other hand, it may also represent the "can do" attitude of perseverance in spite of personnel obstacles. Commanders may be loath to admit in writing that they are having trouble with an assigned task; in this case, making the Equal Opportunity Treatment (EOT) policy work.

The ground truth or reality behind such interpretations cannot be simply or directly determined by questionnaires. Surveys necessarily show what people are willing and able to say about themselves and their situations at the time of survey, and under the conditions presented by the survey method. The real levels of concern may be greater or less than those indicated by the percentages of reply. However, the relative order of importance between problems and different groups of people replying to questionnaires can be inferred from differing patterns of response. Hence the value of survey research is mainly in comparative analyses of response patterns.

PRIORITY COMMAND CONCERNS

The present analysis was designed to explore the priority concerns of ZUSA regarding pregnancy, separate facilities for women and other problems mentioned by commanders. The earlier report and analysis had shown that the response categories did not vary dependably with a variety of factors such as commanders grade, unit type, experience in command of women, location of unit and time of survey. The general findings of that analysis remain true within the limits of sampling errors when the sample of 111 commanders is considered all together.

The analysis presented in this report was organized by different levels of aggregation and used a different method of content analysis designed to focus sharply on the priority problems. This analysis shows different aspects of the same phenomena. The results highlight priority concerns; they do not deny but complement the earlier overall analysis.

Before getting into the quantified results, the character of the command concern with pregnancy must be considered. The current policy requires that women be given full medical care when pregnant and that they not be relieved of duty consistent with the health and welfare of mother and child. In practice this policy can mean that a commander carries a pregnant women on the unit roster of personnel but cannot assign her to the full range of duties. The problems of having other soldiers compensate for lost time and effort are obvious.

Most commanders who wrote on this issue limited their comments to lost time and the morale of others who had to do extra work. Commanders did not moralize. None of them spoke to the issue of pregnancy out of wedlock. But the number of reported pregnancies seems to exceed the number expected from married soldiers. The concern with pregnancy is primarily that of excessive lost time and morale.

One special aspect of the pregnancy problem is that some commanders in ZUSA have experienced multiple pregnancies exceeding expectation based on risk or opportunity to become pregnant. One commander with a dozen women assigned reported that six were in different months of pregnancy at the same time. In view of the availability of oral contraceptives and abortion services, there was some suspicion that pregnancies represent an intentional effort to avoid the duties of a soldier. The youth and inexperience of many women soldiers also suggest confusion and carelessness at the expense of the Army.

THE EQUAL OPPORTUNITY - MISSION EFFECTIVENESS CONFLICT

Finally, we must observe that the entire area of this research is contentious and confused. There are so many crossed purposes and viewpoints that a single topic or concern is easily lost or swept away by special interests. Comparisons between policies and practices applied to men and women abound. Some of the contentiousness seems motivated by ideological interests in advancing or retarding the advance of women in the Army. But some of it has to do with a basic conflict between maintaining mission effectiveness and the goals of equal opportunity for women.

The concern of EOSA with mission effectiveness is not a theoretical matter. EOSA is concerned with a present threat and possibility of war today. One of the consequences of an increased number of women without restriction on duty (except for direct combat) was the distribution of women all over the Korean peninsula including the forward areas just behind expected battle lines.

Equal opportunity in this distribution literally created many hardships and inequities for women soldiers and commanders. Women were assigned in very small numbers . . . ones and twos . . . so requisitions for their skills were processed. The concern for separate facilities . . . billets and latrines . . . arose from equal opportunity while resources were limited to mission requirements. Other problems of loneliness and adjustment to what was formerly a man's army in Korea were accentuated for women by the lack of apparent preparation for them. The concept of a trade-off between the goals of EOT and combat mission requirements is itself a most difficult topic; working one out in the field is a basic conflict.

The brief discussion is enough to suggest the hazards of the many issues in this area of research. The rest of the report studiously avoids the wider issues and conflicts. The objective here is to present findings quantified in such a way that they may be used to clarify discussions and policy decisions. While the quantification may be less interesting than the conflict, it should have the advantage of providing some basis in fact together with methods for verifying of developing new facts.

COMMANDERS & THEIR UNITS

There were 108 commanders of units employing women in the analysis sample. This number is slightly less than the total of 111 returned questionnaires because of missing data on elements.

Commanders' Ranks.

Sampling was directed toward company commanders and others directly responsible for women soldiers. Most of the commanders were Captains (60%). There were a few Lieutenants (6%), and Warrant Officers (4%). Two sergeants were in charge of separate detachments. There were Majors (18%), Lieutenant Colonels (7%) and five Colonels. The senior officers were responsible for large units with concentrations of women soldiers. Grouped as commanders below Captain, Captain and Field Grade, these differences in rank were equally represented in the main analysis.

Acceptance of Women Soldiers.

Two-thirds of commanders reported no prior experience in command of women soldiers. This factor also balanced out in the main analysis.

Acceptance of women under current conditions in EUSA was expressed by 89% of commanders, and 81% of commanders expressed acceptance under wartime conditions. When asked about increasing or decreasing current numbers of women under wartime conditions, most commanders (56%) wanted the same numbers. However, there was a real tendency for more commanders in the northern and forward areas to opt for fewer women in wartime while more commanders in southern and rear areas opted for more women in wartime. This observed difference also balanced out in the main analysis because areas were balanced.

Geographic Locations.

Commanders' units were scattered throughout the military areas of Korea. North of Seoul, there were 21% of the units. In the Seoul-Inchon central area were 38%. Another 22% were immediately south of Seoul in the Pyongtaek area, and 19% were in the far southern areas off Taegu and Busan. In the major breakdown for analysis, units were equally represented over these broad areas. This factor had no apparent influence on the major findings.

Unit Types.

Unit types were also varied. There were line and headquarters companies, command and support sections and detachments. Classified by the official Army groupings, 65% were Combat Service Support, 26% were Combat Service and 9% were Combat units. Of course, the Combat type for woman soldiers was always a higher headquarters unit. Grouped in this way, type of unit was equally represented in the main analysis groupings.

Traditional v/s Non-Traditional Duties for Women.

Half of the commanders reported employing women in traditional duties for women. The other half reported non-traditional employment for women. This breakdown was based on MOS listed by commanders to describe duty assignments of women soldiers. The classification into traditional and non-traditional was based on Department of Army manpower tables reported by Savell, Woelfel, Collins & Bentler, 1976 (See Reference List).

Most traditional MOS in Korea were in administrative, clerical and medical areas. Most non-traditional MOS in Korea were in law enforcement and mechanical/technical areas. With some exceptions, units employing women traditionally were headquarters of any kind plus personnel, finance, postal, and medical units. Non-traditional employment was frequent in Military Police, maintenance, signal and transportation units. But the exceptions are important since a non-traditional type of unit does not necessarily mean a non-traditional duty. Nor is the reverse true. Traditional unit types may not mean traditional duty. This distinction is important since differences in the main analysis were associated with differences in traditional/non-traditional MOS assignments. These differences appeared to show how traditional and non-traditional duties varied with the numbers and percentages of women assigned to units.

Time of Survey & Location During the Alert.

About half of the commanders were surveyed before the EUSA alert of August 1976. Following the killings at Panmunjom, the command was on alert for about one month. Most survey returns before the alert came from the northern and central areas of Korea. After the alert, returns came in from the southern and central areas. This mixing of time and place made it technically impossible to sort out the impact of either the alert or location relative to the expected northern battle lines. There were too few commanders to make the necessary comparisons. However, analysis of the time-place breakdown as a source of error has shown that the major findings were sufficiently consistent to override variations associated with time and place.

This conclusion regarding major findings does not mean that the alert had no impact. Differences were observed in the results, both quantitative and qualitative. The whole survey must be considered as conditioned, for better or worse, by the alert. The analytic fact remains that the general patterns of observed differences survived the poor design of this "natural" experiment.

SORTING PRIORITY CONCERNS

Figure 1 shows how commanders written comments were sorted out in priority order. First each questionnaire was read and coded for as many areas of concern as each commander mentioned. Since the questionnaire did not give the commanders any categories but asked commanders to describe their problems, a mention was more than a check mark or a word or two. When commanders wrote about problems, they were usually careful to make themselves understood. Many of the commanders who appear in the "no written concerns" column also wrote but they did not describe problems.

The areas of concern need little explanation. Pregnancy means lost duty time and lowered morale problems when women require maternity care or have abortions. Menstrual problems were excluded from this area and included in the medical or sick call area at priority 5. The priority is low because of low frequency of mention.

Separate facilities means billets and latrines for women.

Sex-role behavior means any traditional, stereotyped behavior which one might expect between men and women as contrasted with either the norms of military behavior or the desired norms of equal opportunity for men and women. There might be much discussion of the merits of military norms and feminist norms of behavior, but there is no need for it here. Commanders were very clear in describing this behavior as threatening to good military order and discipline. Among the commanders counted here, the definition is simple. It is a matter of threatening the Army's ability to get things done in a military way without preference for any one and with discipline for all.

Duty limitations is the area of concern with physical strength and isolated or hazardous duty.

The remaining "other" at priority 6 was a small variety of mixed concerns. Dependents were mentioned in the sense of minor children and of married couples as soldiers. Training in specific skills such as weapons and general preparation for duty in Korea were included here.

Mutually Exclusive Groups With Common Concerns.

The method of successive sorting by priority concerns produced useful information about the nature of commanders' concerns. This method forced the creation of mutually exclusive groups in the sense that a person was a member of one and only one group. It also forced the identification of maximum sized groups with at least one area of concern in common if sorting followed the order of maximum to minimum frequency of mention. The appearance of zeros in the upper right corner was the result of the method and simply showed that the groups sorted out were non-overlapping with respect to higher priority concerns. No one in the second group mentioned pregnancy and no one in the third group mentioned pregnancy or facilities.

Priority Concern Areas →		Percentages of Concerned Commanders Within Priority Sortings			
		1 P	2 P	3-6 O	No Written Concerns
1. Pregnancy	P	100%	0%	0%	0%
2. Separate Facilities . .	P	13%	100%	0%	0%
3. Sex-Role Behavior . . .	O	13%	5%	65%	0%
4. Duty Limitations . . .	O	17%	15%	20%	0%
5. Medical	O	9%	10%	10%	0%
6. Other	O	30%	10%	20%	0%
Number of Commanders		23	20	20	45

Figure 1. How Commanders Were Sorted By Priority Concerns

The 100% figures were also built into the method; they merely showed that each successive group had at least one thing in common. Column 3-6, identified by O for Other, had only 65% at the top because it represented a forced composite of sortings through priorities 3 to 6. This third group was forced into existence because meaningful analysis could not be performed on the much smaller numbers of commanders in the lower priorities. The complete sorting process is shown in Table 1 of the Technical Supplement.

But the method did not determine the actual number of commanders per group or the percentages below the underlined figures. These percentages show how often and where these groups of commanders had common concerns. These percentages cannot be added because some commanders wrote about more than one area. But a commander was counted only once per area so they can be compared as percentages of written concern between areas and between groups. These small percentages mean that these groups had some common or shared interests between groups but the overlap was small in absolute terms. Only two to four commanders in each group of 20 to 21 wrote about problems in common.

Commanders showed remarkable single-mindedness within these groups about pregnancy and facilities. But plainly, commanders wrote about other problems but not as much nor as commonly.

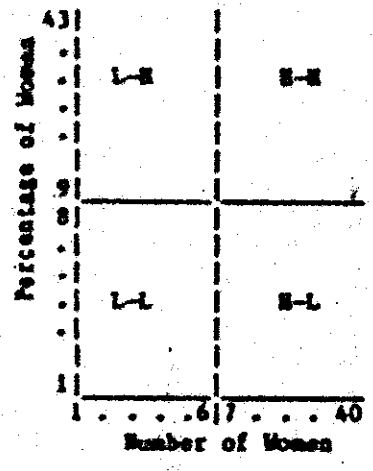
It was tempting to consider the third or Other group was equivalent to a pure "Sex-Role Behavior" group, but it was not. Almost every one of the seven commanders in the group who did not write about sex-roles chose to write about his own pet interest. We may think of the Other group as dominated by sex-role concerns but it also included one-third mixed and minority viewpoints.

Finally, these observations of single-mindedness mean that commanders did <u>not</u> express a general bias against women soldiers in Korea. They have expressed rather specific concerns which were not common to substantial numbers of other commanders. This implication should be noted carefully since it sets the stage for different solutions for commanders dealing with different concerns.

SORTING UNITS BY WOMEN ASSIGNED

Figure 2 shows how commander's units were sorted out by numbers and percentages of women soldiers assigned. Both numbers and percentages were based on commander's reports of the number of women assigned at the time of survey.

Numbers of women ranged from one to 40. More than two-thirds of units ranged from three to 12 women. Six women was the approximate, whole number, median; 54% of units had one to six women and 46% had more than six women.



Unit Quad	Averages of Units Within Quadrants: Number of Women	% of Women	Size of Unit, Men+Women	Number of Units
H-H	14	17%	82	35
L-L	3	4%	75	40
H-L	10	5%	200	15
L-H	4	14%	29	18

Figure 2. How Units Were Sorted by Numbers & Percentages of Women.

Percentages of women per unit were calculated from total numbers of assigned men and women. Percentages of women ranged from less than 1% to 43%. Of course, the highest percentage appeared in a small-sized unit. More than two-thirds of the units fell in the range of three to 16%. The approximate, whole number, median was 8%; 51% of units had less than 9% women while 49% had more than 8% women.

Quadrant Breakdown.

The distribution of units was cut into quadrants by slicing through it at the medians as shown in Figure 2. The resulting four groups were labeled as follows:

H-H = High-High, above median both ways. These units as group had the largest numbers of women soldiers relative to all women soldiers in EUSA. Since the analysis sample did not contain all commanders, it was not possible to say exactly how many or what proportion of total EUSA strength in women was contained in this quadrant. However, it was estimated from the sample that one-half to two-thirds of all women soldiers in the command were assigned to units in this quadrant.

L-L = Low-Low, below both medians. These units had the lowest relative and absolute numbers of women. About one-seventh of all EUSA women soldiers may have been assigned to units in this quadrant.

H-L = High-Low, above median number and below median percentage. Approximately one-sixth of all women in the command may have been assigned to units in this quadrant.

L-H = Low-High, below median in number and above median in percentage. About one-tenth of all EUSA women may have been assigned to units in this quadrant.

The average numbers, percentages and unit strengths are shown in Figure 2 merely to describe units within each quadrant. There was much variability between units around these illustrative averages. Because rounded whole number figures are presented here, readers should be very cautious about doing arithmetic to extrapolate from these statistics. Finally, caution is in order in generalizing or drawing narrowly pointed conclusions from these figures. These figures represent EUSA experience only during the summer and fall of 1976. An unknown but presumably small number of units are missing from the sample.

For the purpose of examining commander concerns as a function of of women assigned, no finer breakdown of these units was technically feasible. In any finer breakdown, the number of units would be too small to draw reasonably secure inferences. The numbers of units in the two mixed quadrants (above one median and below the other) were below practical analytic tolerances. In the detailed tables of the Technical Supplement, these two groups were sometimes pooled to be certain that small numbers did not invalidate statistical tests.

Comparability of the Quadrants.

The possibility that these quadrant groupings were markedly different in other ways was carefully examined. In the description of the commanders and units, it was noted that all but one survey factor had no observable influence on the main findings. What that statement means can now be clarified: all other known factors, save one, were randomly distributed within these quadrant groups. Therefore, differences in commanders' concerns associated with these quadrants cannot be accounted for by such factors as commanders' grade, experience in command of women, unit type, or, most importantly perhaps, the time-place factor generated by the alert.

The factor which was not equally represented is discussed in the next section in connection with command concerns.

COMMANDER CONCERNS BY WOMEN ASSIGNED

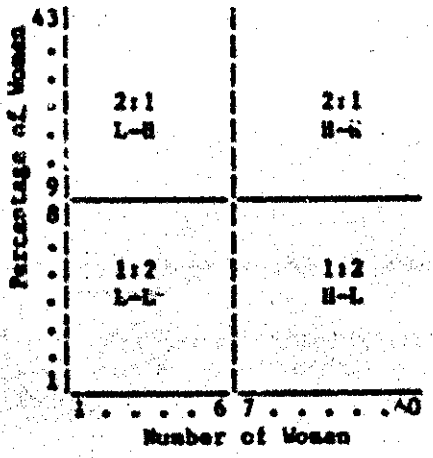
Figure 3 shows how commander concerns differed by the number and percentages of women assigned within each quadrant. The underlined figures show dependable peaks forming a ridge of most frequent concern among commanders. The valley on either side was also dependably low. The ridge of "No Written Concern" appears to have a small dip or saddle at 20% but that observation as well as the small peak at 27% (H-L quadrant) was considered unstable because of the small numbers. The firmest conclusion can be drawn by considering the mixed quadrants (H-L and L-H) together in which case the small peak is flattened and the small valley is filled.

Traditional v/s Non-Traditional Employment.

The one other factor not fairly matched within these quadrants should now be considered. This factor was the traditional v/s non-traditional employment of women soldiers. Almost exactly half of the commanders reported employing their assigned women in traditional MOS for women. Traditional MOS for women in Korea were mainly administrative, clerical and medical. The other half of the commanders reported non-traditional MOS, which in Korea were most often military police, other kinds of law enforcement, and mechanical/technical duties. But the proportions for units grouped by quadrants were distinctly and very dependably different from a flat 1:1 ratio.

There was an extremely improbable pattern of ratios. Ratio was defined as the number of units reporting traditional employment to the number reporting non-traditional employment, Trad:Non-T.

In the quadrant breakdown, the ratios were as follows:



These ratios showed interesting relationships with assignment of women. Units with higher percentages of women tended to be traditional employers. Units with lower percentages tended to be non-traditional employers. Viewed over all units, the numbers of women assigned were unrelated to type of employment by units.

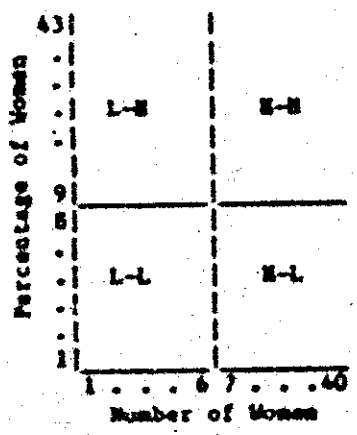
But the ratios were so balanced that they sharpened comparisons of commander concerns in Figure 3. The top and bottom rows, H-H and L-H, were well matched by predominant employment and the two middle rows, L-L and H-L, were well matched by a different kind of employment. But these comparisons lead to the same general conclusions because the two bottom rows show the same peak of concern with problems other than pregnancy or facilities. The net result was increased confidence in the findings. The pattern of concerns held up over variations in the employment of women.

CONCLUSIONS

Commanders' written concerns displayed an orderly pattern of relationships with the numbers and percentages of women assigned to their units.

Commanders who had larger numbers and larger percentages of women assigned were more often concerned about pregnancy relative to other problems and other commanders.

Commanders who had smaller numbers and smaller percentages of women assigned to their units were more often concerned about facilities for women relative to other problems and other commanders.



Unit Quad	Percentages of Commanders Within Quadrants: Priority Concerns — Pregnancy	Facilities	Other	No Written Concern
H-H	37%	6%	14%	43%
L-L	12%	40%	3%	45%
H-L	27%	13%	40%	20%
L-H	6%	0%	44%	50%

Figure 1. How Commander Concerns Differed by Number & Percentage of Women.

Commanders who had high numbers but low percentages of women and commanders who had high percentages but low numbers of women showed similar patterns of concern. These commanders were more often concerned about a variety of problems other than pregnancy or facilities for women. Most of these commanders were concerned about sex-role behaviors which they described as threatening to good military order and discipline.

Commanders who did not write expressing problems in the utilization of women were randomly represented regardless of the numbers or percentages of women assigned to their units.

IMPLICATIONS

That as many as 37% of commanders of units employing the greatest numbers of women wrote about pregnancy as a serious source of lost-time and lowered morale, implies a need to re-examine the policy of maintaining pregnant women on duty.

That facilities for women were needed is considered a problem that does not require survey research, but the findings imply a possible solution without or with less construction cost. Assigning women in small numbers between, say, 6 and 9 per unit while keeping the percentage of women down between 5% and 10% might simplify facilities without accentuating the pregnancy problem found in larger units. There was some suggestion that pregnancy is not entirely related to larger numbers of women on an actuarial basis but could reflect a morale and motivational situation requiring smaller numbers and more attention to the needs of women as they endeavor to realize the goals of equal opportunity in the Army.

Women soldiers were doing well and were well accepted in general by commanders, but the problems stood out sharply against these good relations. More preparation for women and selective assignment rather than routine and scattered assignment is recommended to reduce the conflict between EOT and mission effectiveness.

WOMEN SOLDIERS IN KOREA: COMMAND CONCERNS ABOUT PREGNANCY, FACILITIES AND OTHER ISSUES

TECHNICAL SUPPLEMENT

INTRODUCTION

The questionnaires and survey sampling procedures were fully described in the companion reports: Women Soldiers in Korea: Troop Viewpoints, Nolin, Johns & Cowings, 1977 and Women Soldiers in Korea: Commander's Viewpoints, Cowings, Nolin & Johns, 1977.

The foregoing text has presented much more information about the process of research than is customary or in most cases desirable in ARI reports. The controversial nature of the topic dictates this arrangement of material. The simplest summary is in the Brief. The analytic process was described in fairly simple terms in the main text.

This supplement is limited to presenting analytic tables which back up the full text. These tables have been annotated to provide technical detail.

ANALYTIC TECHNIQUES

Chi-square was used throughout the analyses shown in Tables 3 to 12. Cells were pooled whenever necessary to avoid the use of small expected values. Probabilities were shown for each Chi-square to assist in evaluating the randomness of commander and unit characteristics among quadrant groups. In these tables the quadrants were identified as I-IV categories.

Table 1. How Commanders Were Sorted By Concerns

Areas of Command Concern	Number of Comments	Sorting Priority (1)	(2)	(3)	(4)	(5)	(6)	Σ Columns 3-6	No Comment
		P	P	SR	DL	M	O		
Pregnancy . . P	23	[23]	0	0	0	0	0	0	0
Separate Facilities . P	23	3	[20]	0	0	0	0	0	0
Sex-Role Behavior . . SR	17	3	1	[13]	0	0	0	13	0
Duty Limitations . DL	11	4	3	2	[2]	0	0	5	0
Medical . . . M	6	2	2	1	0	[1]	0	2	0
Other . . . . O	13	7	2	0	0	0	[4]	4	0
Number of Commanders	108	23	20	13	2	1	4	20	45

Notes. Diagonal entries show numbers of commanders, [n], who wrote about each area of concern but did not comment about higher priority areas. Numbers below the diagonal show frequencies of comment in lower priority areas by commanders in each column. Some commanders fell in more than one area so frequencies of comment do not add to [n].

Pooling of columns 3 to 6 to form a composite "other" category with n = 20 is shown in column 7.

Table 2. Joint Distribution of Units by Number and Percentage of Women

Percentage of Women	Number of Women: 2	3 6	7 12	13 40	Total
43 17	0	$\bar{T}$=4.5 $\bar{X}$=21.8 6 $\bar{a}$=21	$\bar{T}$=9.7 $\bar{X}$=26.6 8 $\bar{a}$=36	$\bar{T}$=18.0 $\bar{X}$=30.0 2 $\bar{a}$=40	16%
16 9	0	$\bar{T}$=4.1 $\bar{X}$=10.8 11 $\bar{a}$=38	$\bar{T}$=9.3 $\bar{X}$=12.4 11 $\bar{a}$=75	$\bar{T}$=21.5 $\bar{X}$=12.0 11 $\bar{a}$=179	33%
8 3	$\bar{T}$=1.6 $\bar{X}$=5.1 8 $\bar{a}$=31	$\bar{T}$=4.7 $\bar{X}$=5.4 17 $\bar{a}$=87	$\bar{T}$=9.2 $\bar{X}$=5.3 11 $\bar{a}$=174	$\bar{T}$=16.5 $\bar{X}$=5.5 2 $\bar{a}$=264	38%
2 1	$\bar{T}$=1.5 $\bar{X}$=1.4 9 — a=107	$\bar{T}$=3.7 $\bar{X}$=2.0 3 — a=185	$\bar{T}$=10.0 $\bar{X}$=2.0 1 — a=500	0	13%
Total	17%	37%	31%	15%	100%=105 Units

Notes. Intervals were selected to produce most nearly equal proportions in marginal distributions.

Central figures are percentages of units which add to total percentages. $\bar{T}$ is average number of women per cell. $\bar{X}$ is average % of women per cell. $\bar{a}$ is average unit size (men + women) per cell.

Table 3. Command Priority Concerns by Frequency & Percentage of Women Soldiers in the Commander's Unit

	Frequencies Concern					% By Row Concern			
f-%	P	F	O	N	$\sum_{col}$	P	F	O	N
H-H	13	2	5	15	35	37.1	5.7	14.3	42.9
H-L	4	2	6	3	15	26.7	13.3	40.0	20.0
L-H	1	0	8	9	18	5.6	0.0	44.4	50.0
L-L	5	16	1	18	40	12.5	40.0	2.5	45.0
	23	20	20	45	108	21.3	18.5	18.5	41.7
				Pooling Off-Diagonal Cells					
H-H	13	2	5	15	35	37.1	5.7	14.3	42.9
(H-L) + (L-H)	5	2	14	12	33	15.2	6.1	42.4	36.4
L-L	5	16	1	18	40	12.5	40.0	2.5	45.0
	23	20	20	45	108	21.3	18.5	18.5	41.7
X^2	6.0	15.9	16.1	0.2		$\sum X^2 = 38.27$			
P	0.95	0.99	0.99			P = 0.99			
df	2	2	2	0		df = 6			

Note. Concern categories are P = Pregnancy, F = Facilities, O = Other, N = None. -% categories are based on medians of frequencies and percentages of women in units sampled. fH means more than 6 women. %H means more than 8% women. f-% categories were pooled to increase small expected frequencies in computation of X^2.

Table 4. Time-Place Differences Within f-X Categories

f-X Cat	Time Place	Frequencies Concern P	F	OO	N	Σ	X By Row Concern P	F	O	N
H-H	BNC	6	2	3	9	20	30.0	10.0	15.0	45.0
	ASC	7	0	2	6	15	46.7	0.0	13.3	40.0
		13	2	5	15	35	37.1	5.7	14.3	42.9
	X^2 = 1.24 P = 0.46 df = 2									
(H-L) + (L-H)	BNC	1	2	8	8	19	5.3	10.5	42.1	42.1
	ASC	4	0	6	4	14	28.6	0.0	42.9	28.6
		5	2	14	12	33	15.2	6.1	42.4	36.4
	X^2 = 1.00 P = 0.39 df = 2									
L-L	BNC	2	10	0	5	17	11.8	58.8	0.0	29.4
	ASC	3	6	1	13	23	13.0	26.1	4.3	56.5
		5	16	1	18	40	12.5	40.0	2.5	45.0
	X^2 = 4.23 P = 0.88 df = 2									
	$\sum X^2$ = 6.47 P = 0.63 df = 6									

Note. X^2 tests were computed separately within f-X categories. Two smallest expected percentages by priority concern were combined within each category to increase small expected frequencies in X^2 computation.

Table 5. Unit Type Percentages by f-% Categories

	Unit Type			
f-%	Combat	Combat Service	Combat Service Support	N=100%
H-H	2.9	28.6	68.6	35
L-L	5.0	30.0	65.0	40
H-L	40.0	20.0	40.0	15
L-H	5.6	16.7	77.8	18
Total	9.3	25.9	64.8	108

$\chi^2 = 8.39$ P = 0.92 df = 4

Table 6. MOS Type Percentages for Women by f-% Categories

	MOS Type		
f-%	Traditional	Non-Traditional	N=100%
H-H	65.7	34.3	35
L-L	32.5	67.5	40
H-L	33.3	66.7	15
L-H	66.7	33.3	18
Total	49.1	50.9	108

$\chi^2 = 12.02$ P = 0.99 df = 3

Table 7. Military Area Percentages by f-X Categories

	Military Area						
f-X	I	II	III	V	VI	VII	N=100%
H-H	17.1	-	40.0	14.3	22.9	5.7	35
L-L	22.5	-	42.5	2.5	20.0	12.5	40
H-L	26.7	6.7	26.7	6.7	33.3	-	15
L-H	16.7	-	33.3	33.3	16.7	-	18
Total	20.4	0.93	38.0	12.0	22.2	6.5	108

$X^2 = 2.56$ P = 0.14 df = 6

Table 8. Time-Place Percentages by f-X Categories

	Time-Place		
f-X	Before Alert - North & Central	After Alert - South & Central	N=100%
H-H	57.1	42.9	35
L-L	42.5	57.5	40
H-L	60.0	40.0	15
L-H	55.6	44.4	18
Total	51.9	48.1	108

$X^2 = 2.28$ P = 0.48 df = 3

Table 9. Commander's Rank Percentages by f-X Categories

f-X	Commander's Rank							N=100%
	SGT	WO	1LT	CPT	MAJ	LTC	COL	
H-H	2.9	5.7	5.7	57.1	20.0	2.9	5.7	35
L-L	2.5	-	5.0	67.5	15.0	7.5	2.5	40
H-L	-	-	-	66.7	13.3	13.3	6.7	15
L-H	-	11.1	11.1	44.4	16.7	11.1	5.6	18
Total	1.9	3.7	5.6	60.2	16.7	7.4	4.6	108

$\chi^2 = 6.13$ P= 0.59 df = 6

Table 10. Experience in Command of Women Soldiers, Percentages by f-X Categories

f-X	Command of Women Soldiers		N=100%
	Prior Experience	No Prior Experience	
H-H	34.3	65.7	35
L-L	27.5	72.5	40
H-L	26.7	73.3	15
L-H	50.0	50.0	18
Total	33.3	66.7	108

$X^2 = 3.16$ P = 0.63 df = 3

Table 11. Acceptance of Women Soldiers Under Current Conditions, Percentages by f-X Categories

f-X	Acceptance of Women Soldiers Under Current Conditions: For	Against	Numbers
H-H	91.4	8.6	35
L-L	94.7	5.3	38
H-L	60.0	40.0	15
L-H	94.4	5.6	18
Total	88.7	11.3	106

X^2 = Indeterminate

Table 12. Acceptance of Women Soldiers Under Wartime Conditions, Percentages by f-X Categories

f-X	Acceptance of Women Soldiers Under Wartime Conditions: For	Against	Numbers
H-H	75.0	25.0	32
L-L	83.3	16.7	40
H-L	78.6	21.4	14
L-H	88.2	11.8	17
Total	80.8	19.2	99

$X^2 = 1.55$ $P = 0.33$ $df = 3$

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