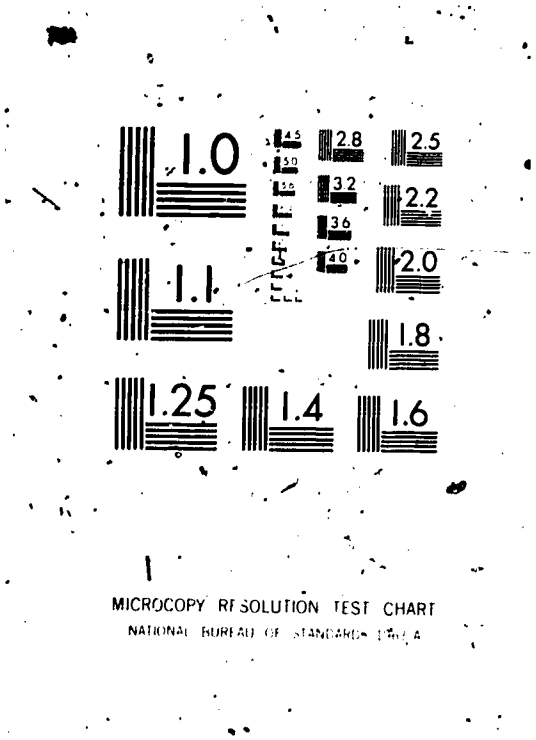
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ABSTRACT

The Racial Attitudes and Perceptions Survey (RAPS) was developed to obtain information from black and white military personnel, including reports of the frequencies of specific discriminatory behaviors and the tension levels associated with each race. The instrument was evaluated in terms of its construct validity and its reliability. Attitudes and perceptions were measured in four areas: (1) perceptions of discrimination against blacks; (2) attitude toward racial interaction; (3) feelings of reverse racism; and (4) racial climate. Evidence indicated the instrument was valid, and reliability estimates were satisfactory. Analysis across demographic variables indicated that several variables were related to RAPS results, with race being the most important. Results indicated that blacks perceived more racial discrimination than whites: both blacks and whites favored racial interactions: and more whites than blacks felt the racial climate in the military was favorable. Several recommendations are made regarding the use of the RAPS at the local and command levels. The test itself is appended. (Author/CP)

Technical Paper 338

THE RACIAL ATTITUDES AND PERCEPTIONS SURVEY (RAPS)

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An instrument was developed to obtain information from black and white military personnel about their racial attitudes and perceptions. The instrument also obtained reports of the frequencies of specific discriminatory behaviors and the tension levels associated with each. The instrument--known as the Racial Attitudes and Perceptions Survey (RAPS)--was evaluated in terms of its construct validity and its reliability. Attitudes and perceptions were measured in four areas: (1) Perceptions of Discrimination Against

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Manual for Racial Attitudes and Perceptions Survey
Racial Perceptions Inventory
Incidence of discriminatory behavior
Feelings of reverse racism
Perceptions of discrimination against blacks
Attitude toward racial interaction
Racial climate

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20. (Continued)

Blacks; (2) Attitude Toward Racial Interaction; (3) Feelings of Reverse Racism; and (4) Racial Climate. Evidence indicated the instrument provided valid measures, and reliability estimates were satisfactory. Analysis across demographic variables indicated that several variables were related to RAPS results, with race being the most important. Results indicated that (1) blacks perceived more racial discrimination than whites, (2) both blacks and whites favored racial interactions, and (3) more whites than blacks felt the racial climate in the military was favorable. The report makes several recommendations regarding the use of the RAPS at the local and command levels.

Technical Paper 338

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FOREWORD

Since 1972, the Army Research Institute for the Behavioral & Social Sciences (ARI) has been active in research on the policy, operational problems, and programs of the Army's race relations/equal opportunity (RR/EO) program. In 1973, in response to a specific requirement of the Assistant Secretary of Defense (M&RA) ARI initiated the development of the Racial Attitudes and Perceptions Survey (RAPS). The purpose of the survey was to measure racial climate at installation level, servicewide. This paper, the first of two, covers the research involved in the development of the survey instrument. The research was conducted under Army Project 2Q162108A743, "Race Harmony Promotion Programs," in the FY 1974 Work Program, as an in-house effort augmented by a contract with Human Sciences Research, Inc., under contract DAHC 19-73-C-0037.

Since 1974, the Army Equal Opportunity Research Program has been conducted at the Presidio of Monterey, Calif., Field Unit.

JOSEPH ZEIDNER
Technical Director

THE RACIAL ATTITUDES AND PERCEPTIONS SURVEY (RAPS)

BRIEF

Requirement:

To develop, validate, and determine the reliability of an instrument that can measure racial attitudes and perceptions of military personnel.

Procedure:

An experimental instrument was developed and given experimental field tryout on approximately 3,020 Army personnel. It was revised and then administered to approximately 4,000 personnel in the Army, Marine Corps, Air Force, and Navy. The resulting data were subjected to a variety of analyses, including item analysis, factor analysis, congruence analysis, correlation analysis, and analysis of variance, as appropriate. Indicators of reliability and construct validity were also obtained.

Findings:

The research produced the Racial Attitudes and Perceptions Survey (RAPS). A separate manual provides detailed instructions on RAPS administration and the interpretation and use of results. The RAPS has two major components: the Racial Perceptions Inventory (RPI) and the Incidence of Discriminatory Behaviors (IDB).

The RPI measures attitudes or perceptions on four scales: (1) Perceived Discrimination Against Blacks (PDB); (2) Attitude Toward Racial Interaction (ATI); (3) Feelings of Reverse Racism (FRR); and (4) Racial Climate (RC).

The IDB lists 42 specific discriminatory behaviors and asks respondents to rate each one on how frequently they observe that behavior occurring at their installations. The RPI is intended to measure attitudes and perceptions, and the IDB is intended to measure the frequency of occurrence of specific discriminatory behaviors.

Highlights of additional findings are summarized as follows.

- Racial attitudes and perceptions are reliably measured by the instrument on four scales. Internal consistency measures (coefficient alpha) range from .79 to .90 for whites and .74 to .92 for blacks.

- In terms of a construct validity model, the evidence obtained supports the conclusion that the RPI is a valid measure of these four dimensions.

- The RAPS instrument appears to work equally well in all four services and for blacks as well as whites (except that the response of blacks to FRR items is difficult to interpret).

- The RAPS appeared to be a highly appropriate instrument to assess racial climate at a military installation at a given time and for measuring changes in that climate over time.

Utilization of Findings:

The RAPS is used at selected Army installations to measure racial climate. The Defense Race Relations Institute (DRRI) includes the RAPS in its Phase II curriculum for Army Equal Opportunity staff personnel.

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INTRODUCTION

In the early 1970's, as the military services initiated new and more comprehensive programs aimed at improving race relations and equal opportunity, an obvious need arose for means of measuring the changes these programs were producing. How effective were the programs? To what extent did the programs achieve their intended objectives?

One of the few available measuring instruments holding promise for meeting this need was the Racial Perceptions Inventory (RPI), developed at Walter Reed Army Institute of Research (Borus, Stanton, Fiman, & Doud, 1972). The Department of Defense tasked the Department of the Army to establish the reliability and validity of the RPI for assessing race relations program effectiveness in the military services (Secretary of Defense, 1972). The Army Research Institute was given the mission by the Office of the Chief of Research and Development, Department of the Army. Accordingly, a research project was initiated to determine the reliability and validity of the RPI and to further develop it as an instrument that could measure the impact of race relations programs.

The major objective of the research was to establish a way of measuring changes that are a result of race relations programs. This required the development of an instrument that would reliably measure racial attitudes and perceptions. In addition, it required an assessment of the usefulness of the instrument for measuring the impact of race relations programs, specifically including training programs. Accordingly, the Racial Attitudes and Perceptions Survey (RAPS) was developed and validated.

The RAPS is a paper-and-pencil questionnaire that measures the attitudes and perceptions of military personnel on racial matters experienced in daily life (Appendix A). Its primary purpose is to provide objective information to the installation commander (or the post race relation/equal opportunity (RR/EO) Officer) to aid in the general program to reduce racial discrimination and promote racial harmony.

This report describes the development and validation of the RAPS. Assessment of RAPS' usefulness in measuring impact of race relations training is covered in another report.

DEVELOPMENT OF THE RAPS

The RAPS consists of two major parts: the Racial Perceptions Inventory (RPI) and the Incidence of Discriminatory Behaviors (IDB). This section describes the development of each part.

Racial Perceptions Inventory

Rationale. A review of the relevant sociological and psychological literature concerning the measurement of racial attitudes and perceptions indicated much research with single-item questions specifically generated for that research (Robinson, Rusk, & Head, 1973). Single-item measures are unreliable and are not a useful measuring technique. Relatively few attitude scales have been developed, and most of these are plagued by the psychometric issues of reliability and validity that reduce their usefulness. Also, most of these focus exclusively on the attitudes of whites about blacks and other minority groups and do not examine attitudes of minority groups about people of other races. For example, the Multifactor Racial Attitude Inventory (Woodmansee & Cook, 1967) consists of 10 separate subscales of various attitudes toward blacks. These scales were based entirely on a white sample and can only be used to measure the attitudes of whites toward blacks.

Little attention has been paid to measuring perceptions of racial discrimination or discriminatory behaviors. Schuman and Harding (1964) developed scales that attempt to measure prejudice toward three minority groups and the rationality with which these views are held. Those scales have significant theoretical interest related to the dynamics of prejudice, but they were not developed to assess racial climate. In addition, many of the available attitude scales were developed 10 to 20 years ago and consequently have outdated item content that is sometimes offensive to people of different races. The Ethnocentrism scale, for example, in The Authoritarian Personality (Adorno, 1950) was designed to measure a person's ideological system pertaining to groups and group relations. Although the instrument provided useful and interesting results in the past, its item content is quite outdated and its results would no longer be useful.

The goals of this project require the development of an instrument that will tap into the attitudes of blacks as well as whites and yield information about the perceptions by both blacks and whites of unequal opportunities and racial discrimination. Also, the instrument must be able to measure attitudes and perceptions as they are uniquely defined by the military environment. Concepts and terminology unique to the military must be satisfactorily included.

Instrument Development. Three instruments servef as the primary sources of an item pool for the development of an instrument consistent with the desired rationales: the original Racial Perceptions Inventory (Borus, Fiman, Stanton, & Doud, n.d.), the Navy Human Relations Questionnaire (CNA) (Stoloff, 1972), and the Enlisted Personnel Questionnaire on Race Relations in the Army (EPQ) (Nordlie & Thomas, 1974) used in previous ARI research.

In its initial form, the RPI was a series of Likert-type items primarily developed by Jonathan F. Borus and Byron G. Fiman. They administered their instrument at a number of Army posts and, through factor analysis, found that their items clustered into three scales: Attitude Toward Integration (ATI); Perceptions of Racial Discrimination (PRD), and Backlash Feelings (BF).

Even though as many as 66 items had been used as part of the RPI at various times, only 31 items fell into the three factors. It was determined that it would be necessary to develop new items to add to the 31 items which had been defined as the RPI. Particular emphasis needed to be placed on developing items for the Backlash Feelings (BF) scale, since it only consisted of six items. Because one of the major research tasks was to evaluate the RPI, it was decided to treat the 31 items that had been defined as the RPI as a major element of the questionnaire. With some minor wording changes for greater clarity, the RPI items were retained intact throughout the instrument modification and development stages so that the validity of these 31 items could be evaluated.

The other instruments were reviewed with the idea of using them to accomplish three purposes: to add items to the RPI to increase its reliability; to add items to measure other, but similar, concepts; and to add items susceptible to the kinds of changes that might occur as the result of race relations training.

The best possible source for new RPI-type items appeared to be an instrument used earlier by the Center for Naval Analyses (CNA) with Navy personnel and used in a previous study for the Army. This instrument consisted of Likert-type items similar to those used in the RPI. A factor analysis of results obtained with this instrument had shown three somewhat different factors, called Racial Climate, Perceptions of Discrimination, and Racial Generalization. The Perceptions of Discrimination items corresponded to the RPI Perceptions of Racial Discrimination scale items. The Racial Generalization items were similar to the Backlash Feelings items on the RPI. The Racial Climate items apparently had not been tapped in previous work on the RPI. These items ultimately combined to create a Racial Climate scale.

Because the available instruments had been used on different audiences and for other purposes than those in the current effort, it was necessary to review each item carefully. The goal was to eliminate excess redundancy while still asking enough relevant questions to achieve instrument reliability.

CNA items that did not duplicate RPI items were added to this section of the questionnaire. In addition, questions from the Enlisted Personnel Questionnaire (EPQ) on race relations in the Army were reviewed for possible use as RPI-type items.

Incidence of Discriminatory Behaviors

During the review of requirements for this project, it became apparent that none of the instruments was useful for assessing behavior as opposed to attitudes. Therefore it was decided that an instrument should be developed that indicated how much discriminatory behavior respondents saw around them. A list of types of discrimination that might occur on a military post was therefore prepared. This list was discussed in detail in interviews with black soldiers on a military post to add and refine the items that would ultimately constitute the IDB.

The IDB, as pretested, consisted of 44 statements in a personal, localized form, having to do with actual discriminatory acts. Respondents were asked to indicate, on a 5-point scale ranging from "very good" to "very bad," how they would feel if such an act happened. They were also asked to indicate how often (frequency) they personally "saw or heard" such acts "on this post" on a 5-point scale ranging from "never" to "very often."

Instrument Pretesting

The experimental RAPS (RPI plus the IDB) was subjected to a series of revisions, based upon administration to three small Army samples (N = 32, N = 54, and N = 114). Each sample was approximately half black and half white, with sample 3 (N = 114) including some officers with enlisted personnel. Minor changes were made to clarify wording or meaning prior to the third pretest. With regard to IDB items, the question "How does this make you feel?" was changed to "How much do you think an act of this type will lead to racial tension?" Responses formed a 4-point scale, ranging from "will not lead to racial tension" to "will always lead to racial tension."

RPI items were examined in terms of distribution of responses for blacks and whites. Those items that did not discriminate between black and white respondents, when (a) mean scores were computed (using a t test at the .01 level) or (b) when variances were compared (using the F test at the .01 level), became candidates for elimination. These items were then reviewed individually to see if the items might measure attitude change as the result of program training; if not, the items were deleted. The only exceptions to this analysis were the original 31 RPI items.

The IDB was also examined to determine if any items should be deleted. The items were divided into four groups:

1. High frequency, high tension;

2. High frequency, low tension;

3. Low frequency, high tension; and

4. Low frequency, low tension.

Items belonging to the fourth group, for both black and white respondents, became candidates for elimination. Mean scores were then computed on all items, and the mean frequency scores were multiplied by the mean tension scores. The resulting distribution of products was examined, and the items that fell one standard deviation below the mean of the distribution were also considered candidates for elimination. An experimental form of the RAPS was prepared as the basis of these revisions for use in a preliminary field tryout.

PRELIMINARY FIELD TRYOUT OF THE RAPS

Objectives

At this stage of the research, the objectives were to determine the psychometric characteristics of the RAPS, to permit factor analysis and scaling, and to ascertain post, race, and grade differences.

Method

Data Collection Procedures. The data were collected at two Army overseas commands and four continental United States (CONUS) Army posts during May and June 1973. Biracial survey teams traveled to each site to administer the questionnaires. Subjects used an average of 45 minutes to complete the instrument; the time range was 25 minutes to 2 hours.

Samples. A stratified sampling design was used that required that half the subjects be black and half white, with each of these two subsamples stratified by grade in proportion to the grade percentages in the Army. Installation requirements ranged from 500 to 1,000, depending upon the population of the installation. In all, 1,345 black and 1,723 white Army personnel were administered the experimental RAPS.

Additional small samples were also collected at selected posts as test-retest samples for use in the evaluation of test-retest reliability. These personnel were required to post their social security numbers to enable matching the test and retest data. The test-retest interval was 7 weeks.

Results of Preliminary Field Tryout

Racial Perceptions Inventory. RPI items were typically Likert-type items with a 5-point scale ranging from "strongly agree" to "strongly disagree." Scales within the RPI were identified through factor analysis procedures. In conducting the factor analysis, subjects were randomly

divided into construct and cross-validation halves, with the analysis conducted separately on each group. The principal components solution with a varimax rotation was used for this analysis (Harmon, 1967). The factor analysis yielded these four factors on both groups:

1. Perceptions of Racial Discrimination (PRD),
2. Attitude Toward Integration (ATI),
3. Backlash Feelings (BF), and
4. Racial Climate (RC).

The results, along with factor loadings for the construct and cross-validation halves, are shown as Appendix B.

Once the factor analysis was completed, scale scores were calculated for each individual by summing the scores on each item falling in a factor. The correlations between these factor scores for whites are shown in the upper half and for blacks in the lower half of Table 1.[1]

Table 1

RPI Intercorrelation Matrix

Whites
(N = 1,691)

	PRD	ATI	BF	RC
PRD		0.17	0.18	-0.26
ATI	0.34		0.59	-0.41
BF	0.03	0.34		-0.38
RC	-0.49	-0.50	0.02	

Blacks
(N = 1,335)

[1] In interpreting these correlations, it is important to note that the polarity of scoring differs on each scale. On the PRD, a low score means that the individual sees a lot of discrimination. On the ATI, a low score indicates an unfavorable attitude toward integration. On the BF scale, a low score indicates the respondent agrees with backlash-type statements. And on the RC scale, a low score indicates the respondent sees a favorable racial climate.

The data show that a number of the scales are correlated. The highest correlations are between the Attitude Toward Integration and Backlash Feelings scales for whites (r = .59) and between the Attitude Toward Integration and Racial Climate scales for blacks (r = -.50). For blacks there is also a strong correlation between Perceptions of Racial Discrimination and Racial Climate (r = -.49) scales.

The reliability of these scales was evaluated in three ways. The cross-validation procedures provided one estimate of the reliability of the instrument. The coefficient of congruence (Harmon, 1967) between the two factor analysis samples was .99 for all four of the scales. This indicates that the factor loadings in the two independent samples were similar and that the responses were stable. Coefficients alpha were also computed on each of the four scales (Cronbach, 1951). These are measures of internal consistency, which are interpreted similarly to an r value. These results are shown in Table 2.

Table 2

Reliability Estimates of the RPI
(Coefficient alpha)

I.	Discrimination	.945	(30 items)
II.	[illegible]gration	.904	(16 items)
III.	Backlash	.869	(15 items)
IV.	Climate	.778	(9 items)

Note. Alpha represents the expected correlation of one test with an alternative form containing the same number of items.

In addition to evaluating the internal consistency of the instrument, the sample design allowed for a test-retest reliability estimate. In one group of subjects, the following correlations were obtained: PRD, .47; ATI, .56; BF, .56; and RC, .45.

The test-retest coefficients were only moderately high correlations, but the internal consistency measures were very strong. These were seen as better estimates of the reliability of the instrument because of the many extraneous variables that act to affect test-retest subjects during a 7-week period (Nunnally, 1967).

Following the initial analysis of data to identify response patterns, the scales were examined for racial, post, and grade differences. Table 3 shows that the RPI detected major differences in responses for blacks and whites. Note also major differences in the variability of the data by race. Table 4 shows major differences in responses by grade and, to a lesser extent, by post.

Indicators of Discriminatory Behavior (IDB). The IDB was not intended to be a scale as the RPI had proven to be, and therefore, factor analysis procedures were not appropriate. Two other types of analyses were used. First, based on the content of individual items, indexes of acts of discrimination and of reports of verbal slurs and insults were developed. Scores for each index were computed and correlated with the RPI scales. Second, the individual items were categorized into quadrains, based on the responses to the frequency and tension responses: low tension, low frequency; low tension, high frequency; high tension, low frequency; and high tension, high frequency.

Table 5 shows the correlations between IDB scores and the RPI scales. For whites, strong correlations between the RPI Backlash scale and the IDB items indicated whites were the victims of discrimination and insults. Those items in which blacks were seen by whites as the victims of discrimination had their highest correlations with the RPI Perceptions of Racial Discrimination scale. For blacks, the RPI Perceptions of Racial Discrimination scale had its highest correlations with the IDB items that describe discrimination against blacks. Also, items that described discrimination and insults against whites were more likely to be associated with a black's attitude toward integration than his or her score on the RPI Backlash Feelings scale.

The second type of analysis performed on the IDB examined items in terms of both frequency of occurrence and degree of tension associated with each. For whites, high tension and high frequency items were as follows:

1. I hear whites on this post using expressions such as "work like a nigger," "free, white, and 21," etc.

2. I see blacks on this post asking that they be treated better than whites.

3. I hear whites on this post refer to blacks as "nigger," "coon," etc.

4. I hear whites at this post making insulting remarks about the hair styles, music, or food preference of blacks.

5. I hear blacks on this post refer to whites in such terms as "honky," "rabbit," or "beast."

Table 3

Black-White Differences on RPI Scales

	Blacks (N = 1,326)			Whites (N = 1,686)				
	$\bar{x}$	S^2	S.D.	$\bar{x}$	S^2	S.D.	F test of S^2	t test of means
PRD	79.58	322.94	17.97	105.56	69.64	8.34	4.64**	-48.68**
ATI	60.66	98.88	9.94	59.33	94.54	9.72	1.05	+ 3.69**
BF	53.02	44.03	6.64	45.22	91.83	9.58	2.09**	+25.16**
RC	25.31	34.19	5.85	24.17	27.00	5.20	1.27**	+ 5.70**

**Significant at .01.

Table 4

ANOVA Results for RPI Scales

Variable		F values	
		Whites	Blacks
Perceptions of Racial Discrimination	Post	3.95**	6.34**
	Grade	24.16**	16.49**
Attitude Toward Integration	Post	6.13**	1.47
	Grade	27.63**	107.73**
Backlash Feelings	Post	6.11**	4.12**
	Grade	9.44**	4.64**
Racial Climate	Post	2.56*	3.30*
	Grade	72.84**	44.69**

*Significant at .05.
**Significant at .01.

Table 5

Correlations Between IDB Scores and RPI Scales

Item	PRD	ATI	BF	RC
Whites				
Discrimination against whites	-0.21	-0.39	-0.46	0.38
Discrimination against blacks	-0.38	-0.17	-0.18	0.27
Insults against whites	-0.15	-0.28	-0.40	0.28
Insults against blacks	-0.31	-0.13	-0.24	0.24
Blacks				
Discrimination against blacks	-0.64	-0.41	-0.02	0.50
Discrimination against whites	-0.23	-0.41	-0.25	0.28
Insults against blacks	-0.45	-0.23	-0.04	0.31
Insults against whites	-0.25	-0.18	-0.19	0.20

6. I see blacks getting away with breaking rules that I am punished for.

7. I see whites around here asking that they be treated better than blacks.

8. I hear whites on this post refer to blacks as "boy."

9. I see blacks on this post getting together in certain situations to harass or exclude me from facilities open to all.

For blacks, high tension and high frequency items were as follows:

1. White supervisors on this post judge my work in a different way than they do for whites.

2. I see white supervisors pass blacks over for training opportunities for which they are qualified.

3. White supervisors at this post give me less credit for good performance than they give white soldiers.

4. I hear blacks on this post refer to whites in such terms as "honky," "rabbit," or "beast."

5. I see whites getting away with breaking rules that I am punished for.

6. I hear whites on this post refer to blacks as "boy."

The differences in items selected by blacks and whites as being high frequency, high tension items suggested that the individual items were doing a good job of discriminating between individuals with different perceptions.

Tests were also made to determine if the IDB detected post and grade differences. Since the IDB indexes were not comparable across race,[2] the comparisons were made by race across post and grade (Table 6). As on the RPI, the IDB generally identified differences in responses by post and grade. Grade again appeared to be the major variable of interest.

Conclusion

The analysis of the RPI and the IDB in the preliminary phase of the study strongly indicated that the RPI was a reliable and sensitive measure of perceptions of racial discrimination, attitudes toward integration, backlash feelings, and racial climate, and that the IDB was a reliable measure of incidences of discriminatory behavior. Consequently, it was concluded that the RAPS, with minor modification, had sufficient psychometric rigor to be administered across all the services as a final field test.

[2] IDB indexes consist of different items and numbers of items for blacks and whites; therefore, the index scores are not comparable as they would be if the same items were used for each group.

Table 6

IDB Results

Race	F values for posts	F values for grades
White		
Discrimination against whites	3.09*	72.97**
Discrimination against blacks	2.76*	47.04**
Insults against whites	5.07*	55.16**
Insults against blacks	2.99*	27.32**
Black		
Discrimination against whites	1.23	46.46**
Discrimination against blacks	6.21**	86.32**
Insults against whites	3.62*	9.88**
Insults against blacks	1.80	14.52**

*Significant at .05.
**Significant at .01.

INTERSERVICE FIELD TEST OF THE RAPS

Objectives

The objectives of this phase of the research were as follows:

1. To determine the reliability of the RAPS for each of the military services.
2. To establish the validity of the Racial Perceptions Inventory (RPI) section of the RAPS.
3. To examine the relationships between racial attitudes and perceptions and selected demographic variables.

Method

Description of the RAPS. As developed after the preliminary field tryout, the Racial Perceptions Inventory consisted of items to which subjects were asked to respond on a 5-point scale ranging from "agree

strongly" to "disagree strongly." These items measured attitudes and perceptions in four conceptual areas:

1. Perceived Discrimination Against Blacks (PDB),
2. Attitude Toward Racial Interaction (ATI),
3. Feelings of Reverse Racism (FRR),
4. Racial Climate (RC).

A second section, consisting of statements about specific discriminatory acts that might occur on or near military installations, was the "Incidence of Discriminatory Behaviors" (IDB). Subjects were asked to indicate whether they thought each act would lead to racial tension, how frequently they actually saw or heard such acts occurring "on this installation."

The final instrument used in the field test included

Section I:	Demographic Questions	13 items
Section II:	The Racial Perceptions Inventory (RPI) ..	73 items
Section III:	Incidence of Discriminatory Behaviors (IDB) Tension Questions	42 items
Section IV:	Incidence of Discriminatory Behaviors (IDB) Frequency Questions	42 items
Section V:	Questions on Job Satisfaction, Experience in Race Relations Training	11 items
		181

Description of the Sample. For this field test, a sample of 125 permanently assigned personnel was requested at each of 36 installations throughout the Department of Defense. These installations are listed in Table 7. It became apparent during the preliminary field tryout that it was extremely difficult to obtain a 50-50 sample of black and white personnel, particularly at the higher ranks. Since the Army has the largest representation of blacks of all the services, it was assumed that this difficulty would be increased for other services that have proportionately fewer black personnel. Accordingly, the samples for this field test were to be proportionate by grade but were to reflect an overall distribution which was 75% white and 25% black. The shortfall (15% service A, 40% service B, 30% service C, and 37% service D) was considerable and necessitated the use of the total sample for most of the analysis. The total of 3,404 usable cases obtained was 22.1% black and 77.9% white.

Results and Discussion

Racial Perceptions Inventory

1. Scale Development. The first step in the development of the RPI scales was to generate item distributions by race. The distributions were inspected to determine whether or not items should be omitted from further analyses, based on low response rates or lack of response variation. The results indicated that although there were highly significant differences between blacks and whites on item responses, the responses were normally distributed in general, and the nonresponse to any one item did not exceed 6%. Therefore, all items were submitted to factor analysis. Nonresponses to individual items were recoded to the modal value, based on the population estimate for each race separately. Subjects who failed to respond to at least 90% of the items were eliminated from further analysis.

The items on the RPI were submitted to factor analysis[3] in order to identify subsets of items which grouped together. Factor analyses were run on the total sample and for blacks and whites separately.

Constructs similar to those obtained in previous analyses emerged from the factor analysis: Perceived Discrimination Against Blacks (PDB); Attitude Toward Racial Interaction (ATI); Feelings of Reverse Racism (FRR); and Racial Climate (RC).

a. Perceived Discrimination Against Blacks (PDB)--The perception of the amount of racial discrimination in the treatment of black personnel in specific areas of military life, such as supervisory treatment, opportunities for advancement, and military justice. Examples of statements in this group are: "Whites get away with breaking rules that blacks are punished for," and "In my unit, blacks get worse jobs and details than whites."

b. Attitude Toward Racial Interaction (ATI)--The attitude of being favorably or unfavorably oriented toward interaction of people of different races in the military and society in general. Example of statements in this group are: "In my opinion, blacks and whites should work in separate groups," and "I would prefer to live in quarters that are mixed racially."

c. Feelings of Reverse Racism (FRR)--The perception and attitude that whites are feeling threatened or fearful of blacks, and that black personnel are treated more favorably than white personnel. Examples of statements in this group are "Blacks give

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[3]Principal components solution with a varimax rotation was used for this analysis. See H. H. Harmon., Modern Factor Analysis. Chicago, Ill.: University of Chicago Press, 1967.

Table 7

Sample Locations

ARMY

Army Base Command, Japan
25th Infantry Division Support Command, Hawaii
101st Airmobile Division, Fort Campbell, Ky.
Fort Richardson, Alaska
Fort Benning, Ga.
Quartermaster School, Fort Lee, Va.
Engineer School, Fort Belvoir, Va.
Basic Combat Training, Fort Ord, Calif.
Ordnance School, Aberdeen Proving Ground, Md.

AIR FORCE

Randolph AFB, Tex.
MacDill AFB, Fla.
Basic Military Training, Lackland AFB, Tex.
Ellsworth AFB, S.D.
Bitburg AB, Germany
Sembach AB, Germany
McClellan AFB, Calif.
NCO Leadership School, MacDill AFB, Fla.
NCO Academy, Langley AFB, Va.
Squadron Officer School, Maxwell AFB, Ala.

NAVY

Subic Bay Naval Station, Philippines
U.S.S. Inchon
Naval Air Station, Imperial Beach, Calif.
U.S.S. Enterprise
Recruit Training Center, San Diego, Calif.
Navy Supply School, Athens, Ga.
Navy Technical Training Center, Memphis, Tenn.
Navy Postgraduate School, Monterey, Calif.
Naval Training Center, San Diego, Calif.

MARINE CORPS

3d Marine Division, Okinawa
1st Marine Aircraft Wing, Iwakuni, Japan
Headquarters, USMC
2d Marine Division, Camp Lejeune, N.C.
Marine Corps Recruit Depot, San Diego, Calif.
Marine Corps Recruit Depot, Parris Island, S.C.
3d Marine Division, Camp Pendleton, Calif.

whites good reason to distrust blacks," and "Blacks get extra advantages on this installation."

d. Racial Climate (RC)--The perception and attitude concerning the quality of race relations in a specific service and the level of commitment of each service to racial harmony. Examples of statements in this group are "Race relations in my service are good," and "My service is firmly committed to the principle of equal opportunity."

Item factor loadings for the total sample and for blacks and whites separately are presented in Appendix C. In this study .40 was used as a criterion for the factor analysis of the total sample, whereas .35 served as a criterion for the separate factor analyses by race where the sample sizes were considerably smaller. In addition, the selected items demonstrated similar applicability for both blacks and whites, so that comparisons could be made directly across the scale scores by race. Finally, items not indicating a clear association to one scale were omitted from scoring.

Overall, the factor loadings were similar for both blacks and whites, with the exception of three items: 63, 69, and 70. These items had relatively high loadings on the PDB scale for the combined sample. However, an inspection of the separate analyses by race indicated that for whites the items had low loadings (.15, .26, and .11) on the PDB, and for blacks the items had loadings of -.44, -.53, and -.52. The content of the items seemed, on a logical basis, to account for the differences found. For blacks, the items appeared to be a direct measure of PDB. However, for whites they seemed to be more of a reflection of backlash. In fact, these items had relatively high loadings on the reverse racism scale for whites. These items were eliminated from the analysis. Two additional items (25 and 53) were also omitted from scoring, since moderate loadings occurred on more than one scale and were difficult to interpret.

As a final step in measuring the degree of factor similarity, coefficients of congruence were computed for each scale to verify that the structures were similar for blacks and whites. The coefficients can range from -1 to 1, where values approaching ±1 indicate a high degree of similarity and values approaching 0 indicate a low relationship. The coefficients from this analysis were relatively high, ranging from .97 to .99. Thus, a highly similar basic factor structure emerged for both blacks and whites. Scales indicating the highest agreement were PDB and RC. Coefficients of congruence (factor similarity) were as follows.

PDB	ATI	FRR	RC
.97	.99	.98	.98

Total scores on each factor or scale were calculated by summing the responses on each item, reversing the direction of those items where the response alternatives were reversed. These scores were calculated by utilizing a unit weighting scheme to take less advantage of the sample

error variance (Horn, 1965). Scale scores were calculated so that higher PDB scores meant the respondent perceived more discrimination. Higher ATI scores mean more favorable attitudes toward racial interaction, whereas high FRR scores indicate agreement with reverse racism-type statements. A high RC scale score means a favorable view of the racial climate. Scale scores were all transformed for reporting purposes, so that the maximum possible was 100 and the minimum possible was 20, with a midpoint of 60. The transformation involved adjusting the scores by the total number of items on a scale, so that the data could be presented in comparable units.

Item-total scale score correlations were then generated for the total sample and for blacks and whites separately. Inspection of the correlations further supported dropping items 63, 69, and 70. After dropping these items as part of the scale score for PDB, item-total correlations were recalculated. The range of item-total correlations for each of the scales was PDB (.51 to .76); ATI (.46 to .78); FRR (.48 to .70); and RC (.49 to .64). The results of this analysis suggested that the item-total score correlations were of sufficient size to obtain satisfactory reliability estimates.

2. Reliability. The next step of the analysis was to compute internal consistency reliability estimates, using coefficient alpha. Alpha is based on the average correlation among items and the number of items on a scale. It represents the expected correlation of one test with alternative forms containing the same number of items (Cronbach, 1951). Table 8 gives the alpha coefficients for black and white respondents separately. Alphas were also calculated for each service to determine if the scales were reliable subsets of items for each service.

The alpha coefficients across the various subsamples indicate a high degree of internal consistency of items for all scales, with a range of .74 to .95. The alpha coefficients for each service are based on the total service sample of blacks and whites and are generally similar. Also, the alpha coefficients for blacks and whites are quite similar, with the exception of the FRR scale. The ambiguity surrounding the FRR scale for blacks is supported by the relatively low reliability on this scale for blacks.

Generally, coefficient alpha, as a measure of internal consistency, provides the most basic estimate of scale reliability, since the major source of measurement error is associated with the sampling of content (Nunnally, 1967). Other types of reliability estimates do not consider as many sources of error and are more susceptible to external response influences. However, it was of some interest to determine the extent to which scales consistently measure attitudes over time; i.e., retest reliability. This estimate of reliability suffers from a number of defects, such as the effects of subjects recalling responses from an earlier administration when responding to a second administration and the generalization of response styles across administrations. Also, for scales measuring perceptions of the environment, as in the RPI, low retest reliability

Table 8

Alpha Coefficients for RPI Scales

Sample	N	Scales PDB	ATI	FRR	RC
Black	753	.92	.87	.74	.81
White	2,652	.89	.90	.90	.79
Service A	1,059	.89	.90	.88	.84
Service B	467	.92	.91	.88	.78
Service C	728	.93	.90	.87	.80
Service D	1,180	.95	.88	.88	.80

may be due to real changes in the environment over time or to a lack of reliability.

In spite of acknowledged weaknesses in the concept, the retest reliability was considered useful in gaging the stability of the RPI scales over time. To measure the retest reliability, the same subjects were administered the RPI twice, with 6 to 9 weeks between administrations. These subjects were untrained, so as not to confound the results by the effects of training. Table 9 gives the retest coefficients product-moment correlations separately for blacks and whites. The retest coefficients range from .66 to .76, and .69 to .76 for blacks and whites, respectively. There appeared to be little variation among the scales or difference by race, with all coefficients moderately high.

3. Validity of RPI Scales. The most effective model to use in developing scales is a predictive validity model, where individual items are selected for their ability to predict some future external, behavioral criterion. For the RPI, individual items would be related to future behavioral indicators of racial climate, and items successful in predicting or discriminating favorable and unfavorable racial climates would be selected. However, resources were not available to develop such behavioral indicators of the racial climate. Therefore, the model used to develop the scales of the RPI was essentially a construct validity model. After internal item analysis, using factor analytic techniques to isolate internally consistent subjects of items, a number of analyses were

Table 9

Retest Reliability Coefficients

Scale	Blacks (N = 108)	Whites (N = 351)
PDB	.73	.69
ATI	.76	.72
FRR	.66	.76
RC	.76	.72

undertaken to demonstrate that the scales indeed measure what they purport to--that is, that they have construct validity. These analyses essentially develop a type of nomological network (Cronbach & Meehl, 1955) to provide ample evidence that the scales are measuring the hypothesized constructs.

4. Correlations of the RPI Scales. Table 10 presents the correlations among the scale scores. The PDB scale correlated substantially in a negative direction with RC for both blacks and whites. It seems that the greater the perception of amount of racial discrimination against blacks, the lower the quality of racial climate. This result is consistent with the meaning of the constructs of the scales. Similarly, the FRR scale was negatively correlated with RC for whites; i.e., high feelings of reverse racism were associated with a poor quality of race relations in the service. This relationship did not exist for blacks. However, there were difficulties in interpreting the FRR scale for blacks.

For both blacks and whites, ATI correlated negatively with FRR, suggesting the understandable association of positive attitudes about racial interactions with a low level of reverse racism feelings. The moderately negative relationship between ATI and PDB may suggest a cognitive consistency in attitudes and perceptions. People who prefer racial interactions also tend to see a lower amount of discrimination, which would be necessary for the success of an integrated living system. ATI and RC were positively related, so that people who favored racial interactions also perceived a higher quality racial climate.

Generally, the relationships were in the directions that would be hypothesized, based on the meaning of the underlying constructs of each scale. With the exception of the FRR scale, the scales seemed to be

Table 10

Correlations of RPI Scale Scores

Scale	PDB	ATI	FRR	RC
		Blacks (N = 753)		
PDB	1.00	-.37	-.04	-.53
ATI		1.00	-.26	.45
FRR			1.00	.02
RC				1.00
		Whites (N = 2,651)		
PDB	1.00	-.20	-.09	-.44
ATI		1.00	-.54	.41
FRR			1.00	-.29
RC				1.00

equally relevant for blacks and whites. The correlations differed in magnitude for blacks and whites, but not in directions. Also, the correlations were sufficiently modest to imply that the scales were measuring related, yet different constructs.

5. Correlations of the RPI Scales with Other Variables. To provide further evidence for the construct validity of the RPI scales, an attempt was made to assess racial attitudes by asking subjects to indicate their feelings about meeting members of various organizations that had relatively clear racial goals. It was hypothesized, for example, that people with a favorable orientation toward racial interactions would have less positive feelings about meeting a member of the Ku Klux Klan (KKK) than those with unfavorable orientations toward racial interactions. This hypothesis was, for whites, strongly supported by the data. The correlations between ATI and feelings about meeting a member of the KKK and other relevant correlations are presented in Table 11. Significance levels of the correlation coefficients are not presented, because with

Table 11

Correlations of the RPI Scales with Other Variables

	PDB		ATI		FRR		RC	
	Black	White	Black	White	Black	White	Black	White
Feelings about meeting a white KKK member	-.14	-.03	.09	-.43	.13	.29	.04	-.21
Feelings about meeting a black NAACP member	.10	.06	.03	.33	-.10	-.27	.05	.18
Feelings about meeting a white CORE member	-.03	.09	.25	.35	-.09	-.27	.20	.13
Feelings about meeting a black militant organization member	.25	.07	-.30	.05	-.05	-.17	-.24	.00
IDB summary scores								
Frequency of black discrimination (FB)	.67	.43	-.29	-.13	-.06	.21	-.48	-.30
Frequency of white discrimination (FW)	.29	.18	-.31	-.35	.29	.52	-.27	-.40

Note: White N = 2,389; Black N = 674.

such a large number of subjects most correlations are statistically significant. The discussion concerns those relationships that relate to the construct validity of the scales.

The ATI scale would be expected to provide the highest magnitude of relationships, and the FRR scale the next highest. These two scales are most clearly attitudinal scales, whereas the PDB and RC scales, to a greater extent, measure perceptions of the environment and are less concerned with an attitude or predispositional set. The pattern of correlations tends to support this hypothesis, particularly for whites. Those whites who had positive feelings about meeting members of the NAACP and

CORE also tended to favor racial interactions and to express less reverse racism feeling. There appeared to be little relationship for whites between ATI and feelings about a member of a black militant organization. Apparently the goal of such an organization was not so clearly defined in relation to a goal of greater racial interactions.

For blacks, this same pattern seemed present, to a lesser extent; however, blacks considered the NAACP the organization whose goals were ambiguously perceived. ATI was correlated positively with feelings about a member of CORE, as expected, and negatively with feelings about a member of a black militant organization. Apparently, blacks in the sample did not perceive the goals of a black militant organization as consistent with a goal of increased racial interactions.

The lack of relationships between ATI and black feelings about KKK and NAACP members probably pointed to an inconsistent perception of the goals of these organizations or a differential dynamic related to the potential encounter with members of these organizations. Some blacks with high ATI scores may relish the opportunity to confront a person with such antithetical beliefs, while others may be repulsed by such contact. Some may perceive the NAACP as an effective change agent, whereas others may characterize it as an ineffectual refuge for "Uncle Tom" types of blacks. In any event, the pattern of assoolations clearly supports the constructs being assessed by the RPI scales, with the exception of the FRR Scale for blacks. The low correlations on that scale clearly show the difficulties in interpreting it as it relates to blacks.

Another relationship, not included in the table but related to construct validity, was the association between the scale scores and knowledge about race relations issues. Previous research has demonstrated that knowledge may serve as an unobtrusive measure of attitude concerning civil rights activities (Fiman, Stanton, & Borus, 1972). Knowledge was hypothesized as positively related to the ATI score and to a lesser extent negatively related to the FRR score. In a sample of 576 people who received both the RAPS and a questionnaire dealing with knowledge of race relations issues, knowledge correlated .31 with ATI and -.19 with FRR, both correlations significant at the .001 level. Greater knowledge is associated with favorable orientation toward increased racial interactions and lower feelings of reverse racism. Thus, the constructs underlying the RPI scales again appear reinforced.

6. Criterion Group Analysis. Another analysis provided further evidence for the underlying constructs of the RPI scales. Two groups of subjects were identified as criterion groups that varied along a dimension that hypothetically related to the scale constructs. The two criterion groups were selected on the basis of their involvement in and commitment to high-quality race relations in the military. Subjects in Group 1 were instructors in the race relations training schools, field instructors for race relations training at the unit level, or students in courses designed to make them instructors in the area of race relations. In almost all cases these subjects volunteered to be in those

programs, and presumably this voluntary involvement represented a tangible commitment to racial harmony. Group 2 was composed of subjects who had not behaviorally demonstrated any interest or commitment in race relations but were similar in other relevant variables to the subjects in Group 1. All subjects in both groups were from the same service and have been in the military over 3 years.

With respect to the constructs of the RPI scales, the following a priori hypotheses were made.

Hypothesis 1: PDB. Subjects involved in the area of race relations will perceive more discrimination against blacks than other subjects. Work in the area of race relations sensitizes people to the more subtle indicators of discrimination and enhances their awareness of such indicators.

Hypothesis 2: ATI. Subjects committed to racial harmony will be more favorably oriented toward racial interactions. This difference may be somewhat lower for blacks because of some disagreement among blacks about the advantages of other ways toward successful racial coexistence.

Hypothesis 3: FRR. Subjects in the race relations area will indicate less reverse racism feeling than other subjects. This difference may not hold for blacks because of the weakness in the FRR scale for blacks.

Hypothesis 4: RC. Subjects in the race relations area will have a slightly lower perception of the racial climate. Familiarity with the area of race relations tends to breed a sense of frustration in attempting to deal with such a pervasive, massive phenomenon and a well-developed acuity for perceiving discrimination. Subjects concerned with race relations are more aware of the extensive service commitment to racial harmony but at the same time are more aware of the lack of service involvement in other areas they see as critical.

The results for the criterion group analysis are presented in Table 12. The results supported the hypotheses based on the constructs for each of the RPI scales. All differences except those for black ATI scores were in the hypothesized direction. For example, both blacks and whites who worked in the area of race relations perceived more discrimination against blacks. Differences in the RC scale were not statistically significant but did reflect the tentativeness and ambiguity associated with the contrasting assumptions surrounding the hypotheses. We expected a lower difference for blacks on ATI scores, but the results

Table 12

Mean Scale Scores for Criterion Group Comparisons

Scale	High involvement in race area, Group 1	Low involvement in race area, Group 2	Significance level of differences
PDB			
White	57.60	49.29	.001
Black	67.35	62.67	.05
ATI			
White	81.49	74.49	.001
Black	81.62	82.07	n.s.
FRR			
White	49.28	59.67	.001
Black	48.15	44.11	n.s.
RC			
White	70.87	73.30	n.s.
Black	70.37	72.48	n.s.

Note. Group 1 whites, N = 154; Group 2 whites, N = 83; Group 1 blacks, N = 156; Group 2 blacks, N = 35.

showed no difference at all. With this minor exception, the overall results did support the original hypotheses.

The previous analyses provide evidence that the RPI scales do measure the concepts that they were intended to measure. The patterns of the results support the construct validity of the scales, in that the hypothesized relationship continued to appear in a variety of situations with a number of different variables. This network of associations and accumulation of evidence clearly indicated the construct validity of the RPI scales.

7. Relationships of Demographic Variables with RPI Scales. The demographic variables in the questionnaire were correlated with the four RPI scales. One attitudinal variable, "job satisfaction," was included in this set. Job satisfaction score was the sum of four questions dealing

dealing with satisfaction with the individual's military job (RAPS, Section V, questions 1-4).

The correlation patterns given in Table 13 were similar for blacks and whites. Blacks tended to have higher relationships than whites with those variables correlating with the ATI scale. Age, Rank, and Time in Service were all fairly colinear and show similar relationships across the RPI scales. The average intercorrelations among these variables was .73 for whites and .75 for blacks. Older, higher ranked soldiers and those with more time in service perceived less discrimination, had more

Table 13

Correlation of Demographic Variables with RPI Scales by Race

	PDB		ATI		FRR		RC	
Variable	White	Black	White	Black	White	Black	White	Black
Age	-.18	-.13	.16	.47	-.12	-.12	.36	.33
Rank	-.11	-.13	.24	.44	-.16	-.11	.33	.36
Time in Service	-.20	-.16	.10	.44	-.09	-.10	.37	.38
Education	.01	.04	.24	.24	-.15	-.17	.19	.07
Career Intent	-.17	-.15	.13	.43	-.10	-.09	.37	.37
Racial Composition of Neighborhood	-.01	-.01	.10	.00	-.05	.01	-.06	-.10
Close Personal Contact	-.07	-.07	.14	.13	-.06	-.09	-.05	.00
Off-duty Contact	.01	-.15	.19	.30	-.13	-.07	.04	.20
Drafted	.03	.08	-.02	-.11	.02	.10	-.04	-.10
Job Satisfaction	-.21	-.34	.20	.48	-.15	-.02	.46	.51

Note. With the large samples used in this analysis, very small correlations are significant. At the P .005 correlations of .10 are significant for blacks (N = 674) and .05 for whites (N = 2,300).

positive attitudes toward racial interaction, felt less reverse racism and had more positive attitudes toward the racial climate in the service. The relationships were higher for blacks, ranging from .44 to .47, than for whites, .10 to .14. As pointed out previously, the relationships may in part be due more to a selection process than to Age, Rank, or Time in Service. In this case, career-oriented individuals may see the service in a more positive way. That is, they may perceive less discrimination, a more positive racial climate, feel less reverse racism, and have more positive attitudes toward interaction.

Respondents with higher education had more positive ATI, less FRR, and more positive attitudes on RC. In part, the Education variable may be a reflection of age, since it correlated .33 and .38 for whites and blacks, respectively, although one might expect the more educated to be better informed and aware of racial issues.

Career Intent had similar relationships with the RPI scales as did Age, Rank, and Time in Service, and correlated .66 with Age for both blacks and whites. It was probably in large part another measure of these variables, since those who have reenlisted are older and, by reenlistment, have indicated a commitment to a career in the military.

The variable Racial Composition of Neighborhood had low relationships with the scales. For whites, there was a slight tendency for those who lived in racially mixed neighborhoods to have higher ATI (.10) scores. For blacks, there was a negative relationship with RC (-.10).

The amount of Close Personal Contact with people of other races was moderately correlated with the ATI scale. More contact was associated with more positive attitudes. Blacks (.13) and whites (.14) had similar correlations.

Black respondents with more Off-duty Contact with people of other races had lower PDB, higher ATI and higher RC scores. For whites, those with more contact had higher ATI scores and lower FRR scores. These results were in an expected direction, where both blacks and whites who had more positive attitudes tended to interact with each other during off-duty hours.

The variable Drafted had very low relationships with the RPI scales. Blacks who were drafted tended slightly to perceive more discrimination against blacks, to have less favorable ATI scores, to have higher FRR scores, and to have less positive RC scores. This variable may be a measure of career orientation.

The Job Satisfaction variable was highly related to the career intent variable, with correlations of .62 for whites and .55 for blacks. It was also highly related to Age, Rank, and Time in Service. For whites the correlations of Job Satisfaction with Age, Rank, and Time in Service were .54, .51, and .54. For blacks the correlations were .53, .47, and .53. The correlational pattern of job satisfaction with the RPI scales

was similar for both blacks and whites. Respondents indicating high job satisfaction perceived less discrimination, with the correlations slightly higher for blacks (-.34) than whites (-.21). Although higher job satisfaction was associated with positive ATI scores for both races, the relationship was much stronger for blacks (.48) than whites (.20). On the FRR scale, there was a slight correlation for whites only, where higher job satisfaction was associated with less reverse racism feelings (-.15). As one might expect, more positive attitudes toward racial climate were expressed by respondents indicating high job satisfaction. The correlation was slightly higher for blacks (.51) than whites (.46).

To some extent, Age, Rank, Time in Service, Career Intent, and Job Satisfaction variables represented a continuum of overlapping concepts, because individuals with a high career orientation obviously become increasingly older, hold higher rank, and have more active duty time. To a lesser extent, job satisfaction is not a necessary condition of career intent, although one would expect people to leave the service if they were not satisfied. Taken together, individuals with a career intent perceived less discrimination, had more positive attitudes toward racial interaction, expressed less reverse racism feeling, and had more positive attitudes toward racial interaction and the racial climate in the military. The pattern was similar for blacks and whites. The Education variable demonstrated similar relationships with the RPI scales, with the exception of the near-zero relationships with the PDB.

Amount of contact with people of other races either before or during military service demonstrated slight relationships with the RPI scale. In general, individuals with more contact perceived less discrimination, had more positive attitudes toward racial interactions, and expressed less reverse racism feeling. The only meaningful relationship with RC was for blacks. More off-duty contact with other races was related to more positive attitudes on racial climate. The variable Drafted had low correlations with the RPI scales. This finding is probably not meaningful for the total sample, since not all services used the draft, and it is not used today.

Incidence of Discriminatory Behaviors

An objective of race relations programs is to develop attitudes that promote racial harmony. Measurement of these attitudes, therefore, is the primary focus of the RPI. Another general objective of race relations and equal opportunity programs is to reduce and eventually eliminate all forms of racially discriminatory behaviors. The IDB was developed to measure the frequency of occurrence of such behaviors within any particular unit. It is important to be clear about this difference between the two measures. RPI scale scores tell something about an individual's attitudes and perceptions, whereas IDB frequency scores tell about what that individual sees in the organizational milieu in which he exists. IDB frequency questions are always asked relative to a specific

installation or unit. By averaging scores on each item for that particular installation, one obtains a measure applicable to that installation.

There is then a critical difference between the RPI scale scores and the IDB frequency scores. The RPI is aimed at measuring general attitudes and perceptions, whereas the IDB is aimed at measuring the frequency of occurrence of specific behaviors on any particular installation. RPI scores, therefore, reflect characteristics of the individual and IDB scores reflect characteristics of the installation.

The IDB was envisioned primarily as a diagnostic tool for installation commanders and as a measure of total program effectiveness over time. It is obviously not an appropriate measure of training effects, because its questions ask about the behavior of people who cannot be presumed to have gone through the same training programs as the subjects being surveyed. To the extent that the long-run program goal is elimination of racially discriminatory behaviors, the IDB is, at least theoretically, more appropriate as an assessment tool than the RPI, inasmuch as it focuses directly on behavior. However, further research would be necessary to verify this assumption.

Since the IDB was developed to describe the incidence of behaviors on an individual installation, analysis for this report was difficult. It was not possible to describe the findings across 42 items for each installation separately for two reasons. First, there are simply too many installations and too many items. Second, the results only have meaning when they can be related to the individual characteristics of the installation--information most useful to a local commander.

Nevertheless, it seemed appropriate to describe results in more general terms, and so the data were combined and results given in terms of all of the installation samples obtained. Caution should be exercised in interpreting these composite findings, because they do not reflect conditions at any real installation. For example, if one installation has frequent occurrences of some behavior and another installation has no such occurrences, then the averaging misrepresents both. The combined data do give a general idea about occurrences of such behaviors at military installations and show differences in how blacks and whites judge potential for racial tension and indicate frequency of discriminatory behaviors. Appendix D lists the mean scores for black and white personnel for each item, based on the total sample.

1. IDB Summary Scores. Although the original intent of the IDB was to maintain the integrity of the specific items, an attempt was made at scaling the IDB, based on the subjects' judgments of potential racial tension. Certain items could conceivably cluster together to form interpretable scales, such as behaviors associated with supervisors or behaviors relating to educational or occupational opportunities. The scaling attempt used factor analysis, done separately by race because of the previously demonstrated interaction of race with other attitudinal and perceptual variables.

Both factor analyses yielded very large first factors that accounted for most of the available variance. Subsequent factors were composed of only a few items with low factor loadings and were essentially uninterpretable. There appeared to be substantial intercorrelations among all the items, suggesting that the discriminatory acts are consistently related to a unitary concept of racial tension. Therefore, it seemed useful to combine the responses to items that reflect discrimination against a specific race in order to develop a broad, summary indicator of discriminatory behaviors against blacks and whites. Two summary scores were created by summing separately the frequency responses to those items that reflect discrimination against whites and blacks. The summary score of the frequency of behaviors directed against blacks (FB) included 24 items, and the summary score that reflects discriminatory behaviors against whites (FW) was composed of 18 items.

To insure that the separate items of the summary score were consistently interrelated, internal consistency reliability estimates were calculated for each summary score for blacks and whites. Table 14 shows the alpha coefficients for the two IDB summary scores by race. All coefficients are quite high, indicating substantial internal consistency of the summary scores.

Table 15 shows the intercorrelations of the two summary scores with the RPI scales, and presents further evidence of the construct validity of these scales. For example, one would hypothesize that high scores on frequency of discriminatory acts against blacks would correlate with a high score on PDB.

Table 14

Alpha Coefficients for IDB Summary Scores

Scale	Alpha coefficient
Blacks	
Frequency of black discrimination (FB)	.92
Frequency of white discrimination (FW)	.94
Whites	
Frequency of black discrimination (FB)	.90
Frequency of white discrimination (FW)	.91

Note. White N = 1,988; black N = 552.

Table 15

Correlations of IDB Summary Scores With RPI Scales

Scale	PDB		ATI		FRR		RC	
	Black	White	Black	White	Black	White	Black	White
Frequency of black discrimination (FB)	.67	.43	-.29	-.13	-.06	.21	-.48	-.30
Frequency of white discrimination (FW)	.29	.18	-.31	-.35	.29	.52	-.27	-.40

Note. White N = 2,389; black N = 674.

2. Frequency of Occurrence of Discriminatory Behaviors. The different types of behaviors examined in the IDB items have been categorized into four groups. These are not scales, but merely collections of items with similar content. The four groupings and examples of the types of items in each are as follows:

- Harassment

  2. I hear whites on this installation making insulting remarks about the hairstyles, music, or food preferences of blacks.

  28. I hear blacks on this installation refer to whites in such terms as "honky," "rabbit," or "beast."

- System Treatment

  4. I see whites who work in offices like finance, disbursement, or transportation providing whites with better service than they provide blacks.

  6. I see whites assigned to less desirable living quarters than blacks of the same grade.

- Self-Segregation

  1. Whites on my job stick together.

  18. During off-duty hours, I see blacks spending time with just blacks.

- Supervisor Treatment

5. I see white supervisors looking more closely at the work of blacks than at the work of whites.

11. I see black supervisors pass whites over for training opportunities for which they are qualified.

The items on the IDB were initially examined to see if there were significant differences in the responses of blacks and whites. The results showed significant differences on all items except one (.01 level).[4] Items on which there were the largest differences are shown in Table 16. Each of these items represented discrimination by whites against blacks. Three of the items were supervisory treatment items and one was a system treatment item. In each case, more blacks than whites reported the items occurring "often" or "very often." Both blacks and whites selected the self-segregation items as occurring most frequently. These were

18. During off-duty hours, I see blacks spending time with just blacks.

29. During off-duty hours, I see whites spending time with just whites.

1. Whites on my job stick together.

23. Blacks on my job stick together.

Further analysis indicated that there were other acts occurring on which whites and blacks do not necessarily agree. For whites, other items occurring most frequently were

2. I hear whites on this installation making insulting remarks about the hairstyles, music, or food preferences of blacks.

9. I hear whites telling racist jokes about blacks.

35. I hear whites on this installation refer to blacks as "nigger," "coon," etc.

3. I see blacks on this installation asking that they be treated better than whites.

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[4]Chi-square tests were made for black-white differences on all items. The item for which there were no differences was Item 12, which read, "I see whites receiving discriminatory treatment at military facilities (such as the exchange, commissary, or service club)."

Table 16

IDB Black-White Differences on Reports of Frequency

Item	Whites (%)	Blacks (%)	
8. I see white supervisors passing blacks over for training opportunities for which they are qualified.			
Never	62.1	18.0	
Seldom	26.4	21.1	
Sometimes	11.0	30.7	χ^2 = 861.89**
Often	2.0	21.7	
Very often	0.5	8.4	
24. I see whites getting away with breaking rules that blacks are punished for.			
Never	58.1	18.1	
Seldom	28.7	22.7	
Sometimes	11.1	32.1	χ^2 = 813.44**
Often	1.6	16.2	
Very often	0.5	10.9	
7. I see white supervisors giving blacks less credit for good performance than they give to whites.			
Never	52.3	16.0	
Seldom	31.4	22.1	
Sometimes	13.6	35.1	χ^2 = 745.49**
Often	2.3	19.2	
Very often	0.4	7.5	
17. I see white supervisors paying more attention to the requests and suggestions of whites than they do to those of blacks.			
Never	55.7	19.3	
Seldom	30.9	24.5	
Sometimes	10.9	29.3	χ^2 = 724.13**
Often	2.0	19.0	
Very often	0.5	8.0	

**Significant at the .01 level.

Chi-square base on actual frequencies rather than percentages.
White N = 2,587; black N = 728.

These tended to be harassment-type items. Whites in the military apparently felt that there was name calling and other types of racial slurs. Item 3 appears to be a backlash-type item.

Other items which blacks felt were occurring most frequently were

20. I hear whites at this installation refer to blacks as "those people," or "your people."

2. I hear whites on this installation making insulting remarks about the hairstyles, music, or food preferences of blacks.

5. I see white supervisors looking more closely at the work of blacks than at the work of whites.

19. I see white supervisors judging the work of blacks in a different way than they do for whites.

While for whites the items other than self-segregation items concentrated on harassment, blacks were also reporting discrimination in treatment by supervisors. Blacks agreed with whites about insulting remarks concerning hairstyles, music, and food preferences. But blacks did not report hearing racist jokes or use of the word "nigger" so much as whites reported hearing them. This is logical, since in the racial climate in the military today whites would probably not tell such jokes or use racial slurs in the presence of blacks. On the other hand, blacks report that terms like "your people" are used, which whites do not report. It would seem that while whites are aware that words like "nigger" are universally recognized as racial slurs, whites are not aware of the offensive nature of a phrase like "your people" and are not therefore conscious of its use. In fact, whites indicate that use of "your people" would cause much less tension than a word like "nigger." Blacks also reported supervisory discrimination, even though whites did not select this as an item they saw occurring more frequently. This corresponds to findings on the RPI scale reported previously which indicated that whites do not perceive discrimination against blacks to the extent that blacks do.

Behaviors which whites felt occurred least frequently were

37. I see blacks assigned to less desirable living quarters than whites of the same grade.

6. I see whites assigned to less desirable living quarters than blacks of the same grade.

40. I see blacks receiving discriminatory treatment at military facilities (such as the exchange, commissary, or service club).

14. I see white supervisors making it easier for whites to go through the chain of command to present a complaint than they do for blacks.

Three of these items were system treatment items and one a supervisory treatment item. Whites reported that housing was assigned equally fairly and, furthermore, denied that there was any discrimination in military facilities. Whites also said that they did not have easier access to the chain of command than blacks.

Behaviors that blacks felt occurred least frequently were

12. I see whites receiving discriminatory treatment at military facilities (such as the exchange, commissary, or service club).

6. I see whites assigned to less desirable living quarters than blacks of the same grade.

34. I see black supervisors on this installation giving whites less credit for good performance than they give blacks.

38. I see blacks getting away with breaking rules that whites are punished for.

Three of these items were system treatment items and the fourth related to supervisory treatment. All four items represent blacks getting better treatment than whites. It would appear, therefore, that blacks specifically denied treatment in their favor.

In summary, it appeared that both blacks and whites felt that self-segregation was the most frequent type of racial behavior in the military. Both blacks and whites agreed that racial slurs occurred, although the nature of these differed somewhat: blacks were reporting the occurrence of terms such as "your people" and comments about lifestyles, whereas whites were also reporting uses of such terms as "nigger" and racial jokes. Whites, it appeared, were inclined to deny the occurrence of differential system treatment. Blacks, on the other hand, denied that there was discrimination against whites.

3. Racial Tension-Producing Behaviors. The attempt to utilize an evaluation of potential tension that may be caused by a behavior as a measure of importance in developing a weighted composite of discriminatory behavior was not successful. Although weighted composites intuitively seem fruitful, they are often extremely difficult to generate due to the instability of the weights. In this study there was relatively little variance among the items in the judgments about the potential level of racial tension, and the judgments did not appear to be sufficiently stable across a number of samples. Therefore, it seemed appropriate to utilize the judgments of tension only in a more general way, where RAPS users would be made aware that the specific sets of behaviors are more likely to lead to racial tension and warrant a greater degree of attention. For example, behaviors representing racial harassment have a higher mean level of potential tension than behaviors dealing with supervisory practices. Information about the level of potential tension for specific content areas of behaviors is provided in the RAPS manual

of administration and interpretation (Fiman, 1974). However, there were also significant differences in the extent to which blacks and whites felt the behaviors would lead to tension.[5] Items with the largest black-white differences are shown in Table 17.

The three items on which there were the largest differences were all verbal harassment types. In each case, a higher percentage of blacks indicated that such acts were more likely to lead to racial tensions. The fourth item was a system treatment item, and again blacks were more likely to feel it would lead to racial tensions.

The behaviors whites felt were most likely to lead to racial tensions were

33. I see blacks on this installation getting together in certain situations to harass or exclude whites from facilities open to all.

39. I see whites at this installation getting together in certain situations to harass or exclude blacks from facilities open to all.

35. I hear whites on this installation refer to blacks as "nigger," "coon," etc.

3. I see blacks on this installation asking that they be treated better than whites.

White subjects apparently felt that harassment and exclusion of either blacks or whites was likely to lead to racial tensions. Whites also indicated that the use of terms like "nigger" would lead to tensions. This finding is interesting because this is one behavior that whites reported as occurring more frequently than blacks did. Whites also indicated that racial tensions would be caused by blacks asking for preferential treatment. This behavior also is one that whites reported was occurring more frequently.

Behaviors that blacks felt would lead to tensions were

35. I hear whites on this installation refer to blacks as "nigger," "coon," etc.

22. I hear whites on this installation using expressions such as "work like a nigger," "free, white, and 21," etc.

41. I hear whites on this installation referring to blacks as "boy."

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[5] Chi-square values for black-white differences were significant on all items except Item 19, which read, "I see white supervisors judging the work of blacks in a different way than they do for whites."

Table 17

IDB Black-White Differences on Reports of Tension

Item	Whites (%)	Blacks (%)	
22. I hear whites on this installation using expressions like "work like a nigger," "free, white, and 21," etc.			
Will not lead to racial tension	4.4	4.4	
Will in some cases lead to racial tension	33.3	15.0	
Will in most cases lead to racial tension	34.9	20.6	$\chi^2 = 275.22$**
Will always lead to racial tension	27.4	60.0	
20. I hear whites at this installation refer to blacks as "those people," or "your people."			
Will not lead to racial tension	14.0	9.8	
Will in some cases lead to racial tension	53.8	37.5	
Will in most cases lead to racial tension	24.2	30.6	$\chi^2 = 151.02$**
Will always lead to racial tension	7.9	22.1	
41. I hear whites on this installation refer to blacks as "boy."			
Will not lead to racial tension	3.8	3.1	
Will in some cases lead to racial tension	28.5	16.3	
Will in most cases lead to racial tension	36.7	25.8	$\chi^2 = 126.67$**
Will always lead to racial tension	31.0	54.8	
16. I see whites wearing ID bracelets, while blacks are not allowed to wear "slave" bracelets (symbolic black unity wristbands).			
Will not lead to racial tension	8.8	7.6	
Will in some cases lead to racial tension	44.9	32.0	
Will in most cases lead to racial tension	33.6	32.8	$\chi^2 = 102.19$**
Will always lead to racial tension	12.7	27.6	

**Significant at the .01 level.

Note. White N = 2,587; Black N = 728.

39. I see whites at this installation getting together in certain situations to harass or exclude blacks from facilities open to all.

Blacks selected some of the same items as whites--the items about the use of "nigger" and the exclusion and harassment of blacks from facilities open to all. Blacks also reported that the use of words like "boy" and phrases like "work like a nigger" would lead to tensions, whereas whites did not list these.

All the items among the four most tension producing for black and whites were harassment items, with one exception. It is apparent that both blacks and whites saw exclusion and harassment as tension producing.

Both blacks and whites agreed that the self-segregation items were least likely to lead to tensions. These items were reported by both blacks and whites as occurring most frequently.

These results are interesting from several standpoints. First, they suggest major differences in the extent to which blacks and whites saw the same types of discriminatory behaviors, as well as in the level of tension that they believe each act would cause. Second, racial insults were extremely important. Both blacks and whites agreed that such acts cause tensions, and both agreed that they are among the acts occurring more frequently. In addition, while whites seemed to recognize that the use of words like "nigger" would lead to racial tensions, they seemed less aware of the extent to which other words might be offensive. Despite the fact that whites recognized the offensive nature of words like "nigger," they apparently still used them. There was also some feeling among whites that blacks were asking for better treatment, and they reported that this would lead to racial tensions. Blacks, on the other hand, did not report that discrimination against whites was occurring or that it would lead to racial tensions. Based on findings such as these, it appears that there was considerable potential for interracial conflicts throughout the military. The findings provided evidence that tension-producing behaviors were occurring with some frequency and that there was little consensus between blacks and whites about what was occurring and how important such occurrences were.

The findings that the behaviors which occurred most frequently were the ones least likely to lead to tensions is important as well. Self-segregation, it appeared, by itself was not likely to be a problem on an installation, but if it became exclusion, as is suggested by items 33 and 39, tensions might result.

The evidence that tension-producing behaviors were occurring with some frequency gives cause for concern. This was particularly true in those cases where, for example, whites seemed unaware that blacks were offended by such behaviors. If blacks and whites operate under different assumptions about how much tension will result from certain behaviors, then the likelihood for racial tensions and even violence is heightened.

CONCLUSIONS

During recent years the military services have become more responsive to the need to eliminate discrimination, and many programs have been set in motion to insure that the policy of equal opportunity and treatment is implemented fully in practice. Effective feedback about the way people in the military are actually feeling and about the discrimination they see in the service can prevent these programs from losing their direction or, at worst, becoming counterproductive.

The Racial Attitudes and Perceptions Survey helps insure that this does not happen. The instrument reliably measures attitudes and perceptions and obtains information about the frequencies of specific discriminatory behaviors. The RAPS, when correctly used, helps equal opportunity program managers obtain information they need to guide their efforts. A separate manual (Fiman, 1974) has been prepared that provides detailed instructions on its administration and the interpretation and use of results.

Two sources of information are derived through the use of the RAPS. The first of these is the global view of the racial climate provided by the RPI scale scores. Large racial differences in these scores would indicate a disturbing degree of racial polarization within the installation or major unit. Inspection of the responses to the individual RPI and IDB items, the second source of information derived from the RAPS, would isolate and identify specific problem areas within the installation or major unit. Inspection of the responses to the individual RPI and IDB items, the second source of information derived from the RAPS, would isolate and identify specific problem areas which might be contributing to this polarization. Thus, by using the RAPS information, a commander not only can determine the approximate proportions of the racial problems in his unit, but also can determine priorities in combating these problems.

One final point should be made. The mean item responses and scale scores contained in this report should in no way be construed as Army-wide or Department of Defense-wide norms. Because of variations in mission, population, and locale, the appropriate norms for a particular installation should be established only through repeated administrations of the RAPS over time. Then the results of each RAPS administration can be compared with previous ones; through such comparisons, determinations can be made regarding the deterioration, amelioration, or stability of a unit's racial climate, and inferences can be drawn as to those things which contribute to these conditions. Thus, the RAPS is most effective when administered periodically within a command or at an installation, acting as a barometer of racial conditions. The commander can then keep a close surveillance on those problem areas which, left unchecked, could undermine the effectiveness of his unit.

RECOMMENDATIONS

The ultimate value of the Racial Attitudes and Perceptions Survey (RAPS) lies in its ability to measure racial climate. However, no matter how good the RAPS is, its ultimate value is related to how it is used. Certainly, without appropriate safeguards, the use of the RAPS will not yield valid results, and, in fact, may even be counterproductive. A manual of administration and interpretation has been created as a companion to this report and provides guidelines for appropriate usage. However, a systematic framework is needed, to insure that the RAPS is properly used to meet the needs of prospective users, serve as a catalyst for the modification and establishment of new programs, and ultimately contribute to the elimination of racial discrimination.

Based on the prior military experiences of the authors and on the comprehensive view of the military environment that the work on this project provided, the following recommendations are made:

1. The RAPS should be used "annually" in servicewide evaluations of racial attitudes and perceptions, in conjunction with other measures of the overall racial environment.

2. The RAPS should be used at the installation level to help commanders assess race relations programs and changes in attitudes and perceptions over time. A manual has been developed to help installation commanders use the RAPS for this purpose (Fiman, 1974).

3. The RAPS should not be used to evaluate specific commanders. The identification and punishment of commanders who obstruct the general goal of racial harmony is a desirable consequence, but using the RAPS for this purpose will contaminate the validity and truthfulness of responses from the units of those commanders in the future. If the commander thinks that responses of his personnel will be used to directly evaluate his own performance, that commander will very likely attempt to pressure his personnel to give the "right" responses, violate his pledge of confidentiality and anonymity, and inevitably destroy the level of trust with his personnel that is critical to the RAPS and race relations programs in general.

4. In general, the RAPS should not be used to evaluate specific race relations programs at the local level. Although the instrument is sensitive to changes in the racial climate, statements of causality and precise evaluation require very special circumstances (such as control groups). Detailed evaluctions should only be done by qualified social scientists who have experience in program evaluation and can use scientifically sound research designs.

5. The RAPS should be revalidated at least every 2 years, because changes over such an interval could cause specific items on a

scale, both in the RPI and the IDB, to lose their meaning. Furthermore, additional areas of concern among military personnel may arise that should be included in the instrument.

6. The conditions under which the RAPS is administered should not be changed without revalidation. These include face-to-face group administrations, biracial survey teams, and standardized instructions.

7. It is important that the RAPS be used "systematically." In this sense, the purpose should be to obtain information about attitudes and perceptions and to communicate this information to those responsible for race relations programs. As programs are modified to improve the racial environment, the RAPS should be used to assess the impact of the program changes. Only through such a "systems" approach to the development and implementation of race relations programs can success be attained. Two things about such a systematic approach are important:

   a. It is very easy to misuse the RAPS to allow managers to get only the information they want to hear. This must be avoided by providing strong safeguards to obtain accurate assessment of the racial climate. This system should be expanded to provide more objective measures of racial climate as a companion to the self-reports of racial perceptions. Information systems can be established which, for example, measure general promotion rates for each race separately.

   b. This system itself should be evaluated after it has been in operation for a substantial period of time. There are many ways in which data can be incorrectly collected and improperly analyzed. These factors must be examined so that the system can be changed to promote more effective, efficient use of the RAPS.

Some attention should also be given to the kind of structure within which these recommendations might best be carried out. In our view, the establishment of a centralized agency within each service would be highly appropriate. The specific functions of such an agency should be determined by the needs and requirements of the individual services; it should, at a minimum, be responsible for such administrative functions as preparing guidelines for the use of the RAPS, overseeing reproduction of the RAPS, and providing technical assistance to local commanders who wish to use the RAPS. Other possible functions might include the conduct of servicewide surveys using the RPI portion of the RAPS. Because of possible overuse of the RAPS, this function would be facilitated greatly by the development of alternative forms of the RPI. A centralized agency would provide a trained pool of professional personnel who could provide technical assistance where needed and help insure quality control in administration and analysis of results.

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APPENDIX A

The Racial Attitudes and Perceptions Survey

During the instrument development phases of the research, the instrument was referred to as the Inventory of Racial Climate and Attitudes (IRCA). This was subsequently revised, and throughout this report the instrument was called the Racial Attitudes and Perceptions Survey (RAPS).

GENERAL INSTRUCTIONS FOR COMPLETING THIS QUESTIONNAIRE

1. Do not put your name or service number anywhere on the answer sheet or the questionnaire.
2. Answer all the questions. Read each question and all of its responses carefully before selecting your answer.
3. Choose only one answer to each question.
4. Mark your answer on the answer sheet only. Do not write on the questionnaire booklet.
5. Use only a #2 pencil when filling out the answer sheet. Do not use ink.
6. On the answer sheet, mark the box that has the same letter as the response you selected from the questionnaire.
7. The answer sheet is numbered from top to bottom. Check your answers once in a while to be sure that you are marking in the right place.
8. Fill in the box with a heavy mark; do not go outside the lines of the box. Look at the example below:

9. If you make a mistake, erase the mark completely before entering a new one.
10. Do not tear or fold the answer sheet.

On your answer sheet, mark your answer to each of these questions, as follows:

A DISAGREE STRONGLY
B DISAGREE
C NEITHER AGREE NOR DISAGREE
D AGREE
E AGREE STRONGLY

1. Race relations in the Army have been getting better during the past year.
2. With the same education and skills, Black soldiers get better treatment than Whites.
3. White soldiers and supervisors assume the worst about Blacks in any doubtful situation.
4. Blacks were better off before this integration business got started.
5. White supervisors pay little or no attention to Blacks' complaints about discrimination in the civilian community.
6. Harsher punishments (Articles 15, courts-martial, etc.) are given out to Black offenders than to White offenders for the same types of offenses.
7. Whites who supervise Black supervisors doubt their competence.
8. There is more racial discrimination on this military installation than there is in civilian life.
9. If things continue the way they are going, Blacks will get more than their fair share.
10. Blacks get more extra work details than Whites.
11. I understand the feelings of people of other races better since I joined the Army.
12. The Army is firmly committed to the principle of equal opportunity.
13. After duty hours, soldiers should stick together in groups made up of their race only (Blacks only with Blacks, and Whites only with Whites).
14. The Military Police in the Army treat Blacks worse than they treat Whites.
15. Blacks are trying to get ahead too fast.
16. Whites act as though stereotypes about Blacks were true (for example, all Blacks are lazy).
17. The Army needs race relations programs.
18. Blacks get extra advantages on this installation.
19. It might be a good idea to have all-Black and all-White units in the Army.
20. Trying to bring about racial integration is more trouble than it's worth.
21. If the race problem can be solved anywhere, it can be solved in the Army.
22. There is racial discrimination against Whites on this installation.
23. Whites have a better chance than Blacks to get the best training opportunities.
24. Whites assume that Blacks commit any crime that occurs, such as thefts in barracks.
25. Whites do not show proper respect for Blacks with higher rank.
26. Blacks in the Army are not interested in how Whites see things.

On your answer sheet, mark your answer to each of these questions, as follows:

A DISAGREE STRONGLY
B DISAGREE
C NEITHER AGREE NOR DISAGREE
D AGREE
E AGREE STRONGLY

27. Race relations in the Army are good.

28. Blacks and Whites would be better off if they lived and worked only with people of their own races.

29. The Army is doing all it can to improve race relations.

30. In the Army, I would prefer to live in quarters that are mixed racially.

31. If my unit had a supervisor of a race different from mine, I would dislike it.

32. White supervisors expect Blacks to do poorly on any jobs other than menial ones.

33. Equal opportunity and treatment regulations are seldom enforced.

34. Whites are not willing to accept criticism from Blacks.

35. Whites get away with breaking rules that Blacks are punished for.

36. In my opinion, Blacks and Whites should work in separate groups (all Blacks in one group, all Whites in another group).

37. Blacks and Whites should mix together "only" while they're on duty.

38. Our supervisor picks people to do certain details on the basis of their race.

39. On this installation, Blacks who work hard can advance as fast as Whites who work just as hard.

40. Some Blacks get promoted just because they are Black.

41. Black power is a dangerous thing.

42. White supervisors assume that Blacks have hidden motives when they ask for something.

43. The Army is trying to improve treatment of Black service men and women in the civilian community.

44. There is racial discrimination against Blacks on this installation.

45. Whites give Blacks good reason to distrust Whites.

46. It would be a good thing for Blacks and Whites to hang around together after duty hours.

47. A Black in the Army must do more than the average White to make the grade.

48. I like people of other races more since I joined the Army.

49. The Army's equal opportunity programs have been helpful to Blacks in the Army.

50. White soldiers and supervisors act as though Blacks have to "earn the right" to be treated equally.

51. There is serious racial tension in the Army.

52. Whites accuse Blacks of causing trouble and starting fights.

53. Calling attention to racial problems only makes things worse.

54. Blacks frequently cry "prejudice" rather than accept blame for personal faults.

55. In my unit, Blacks get worse jobs and details than Whites.

On your answer sheet, mark your answer to each of these questions, as follows:

A DISAGREE STRONGLY
B DISAGREE
C NEITHER AGREE NOR DISAGREE
D AGREE
E AGREE STRONGLY

56. Most commanders apply the military justice system fairly to Whites bu. not to Blacks.

57. The reason Blacks stick together is to keep out Whites.

58. A Black who attends an all-Black school is better off as long as it is just as good as a White school.

59. The Army provides a good career opportunity for Blacks.

60. Blacks get away with breaking rules that Whites are punished for.

61. There should be more close friendships between Blacks and Whites in the Army.

62. Blacks assault Whites just because they're White.

63. Blacks should stay with their own group.

64. Blacks are not willing to accept criticism from Whites.

65. On this installation, I have personally felt discriminated against because of my race.

66. At stores, bars, theaters and restaurants in the civilian community, I have been treated disrespectfully because of my race.

67. Blacks don't take advantage of the educational opportunities that are available to them.

68. Blacks give Whites good reason to distrust Blacks.

69. Many Blacks have begun to act as if they are superior to Whites.

HOW OFTEN DOES THIS ACTION OCCUR ON THIS INSTALLATION?

On your answer sheet, mark your answer to each of these questions, as follows:

A = NEVER
B = SELDOM
C = SOMETIMES
D = OFTEN
E = VERY OFTEN

70. Whites on my job stick together.

71. I hear Whites on this installation making insulting remarks about the hairstyles, music or food preferences of Blacks.

72. I see Blacks on this installation asking that they be treated *better* than Whites.

73. I see Whites who work in offices like finance, disbursement, or transportation providing Whites with *better* service than they provide Blacks.

74. I see White supervisors looking *more* closely at the work of Blacks than at the work of Whites.

75. I see Whites assigned to less desirable living quarters than Blacks of the same grade.

76. I see White supervisors giving Blacks *less* credit for good performance than they give to Whites.

77. I see White supervisors pass Blacks over for training opportunities for which they are qualified.

78. I hear Whites telling racist jokes about Blacks.

79. I see Blacks who work in offices like finance, disbursement, or transportation providing Blacks with *better* service than they provide Whites.

80. I see Black supervisors pass Whites over for training opportunities for which they are qualified.

81. I see Whites receiving discriminatory treatment at military facilities (such as the exchange, commissary, or service club).

82. I hear Blacks on this installation making insulting remarks about hairstyles, music or food preferences of Whites.

83. I see White supervisors making it easier for Whites to go through the chain of command to present a complaint than they do for Blacks.

84. I see White supervisors applying the Uniform Code of Military Justice (UCMJ) and Military Regulations differently to Blacks than to Whites.

HOW OFTEN DOES THIS ACTION OCCUR ON THIS INSTALLATION?

On your answer sheet, mark your answer to each of these questions, as follows:

A = NEVER
B = SELDOM
C = SOMETIMES
D = OFTEN
E = VERY OFTEN

85. I see Whites wearing ID bracelets, while Blacks are not allowed to wear "slave" bracelets (symbolic Black unity wristbands).

86. I see White supervisors paying *more* attention to the requests or suggestions of Whites than they do to those of Blacks.

87. During off-duty hours, I see Blacks spending time with just Blacks.

88. I see White supervisors judging the work of Blacks in a different way than they do for Whites.

89. I hear Whites at this installation refer to Blacks as "those people," or "your people."

90. I see Black supervisors looking *more* closely at the work of Whites than at the work of Blacks.

91. I hear Whites on this installation using expressions such as "work like a nigger," "free, white and 21," etc.

92. Blacks on my job stick together.

93. I see Whites getting away with breaking rules that Blacks are punished for.

94. I see Black supervisors paying *less* attention to the requests and suggestions of Whites than they do to those of Blacks.

95. I see White supervisors assigning Blacks to *worse* work details than they do Whites.

96. I see Black supervisors making it *more* difficult for Whites to go through the chain of command to present a complaint than they do for Blacks.

97. I hear Blacks on this installation refer to Whites in such terms as "honky," "rabbit," or "beast."

98. During off-duty hours, I see Whites spending time with just Whites.

HOW OFTEN DOES THIS ACTION OCCUR ON THIS INSTALLATION?

On your answer sheet, mark your answer to each of these questions, as follows:

A = NEVER
B = SELDOM
C = SOMETIMES
D = OFTEN
E = VERY OFTEN

99. I see Whites on this installation asking that they be treated *better* than Blacks.

100. I see Black supervisors judging the work of Whites in a different way than they do for Blacks.

101. I see Black supervisors assigning Whites to *worse* work details than they do Blacks.

102. I see Blacks on this installation harassing or excluding Whites from facilities open to all.

103. I see Black supervisors on this installation giving Whites *less* credit for good performance than they give Blacks.

104. I hear Whites on this installation refer to Blacks as "nigger," "coon," etc.

105. I see Black supervisors on this installation applying the Uniform Code of Military Justice (UCMJ) and Military Regulations differently to Whites than to Blacks.

106. I see Blacks assigned to *less* desirable living quarters than Whites of the same grade.

107. I see Blacks getting away with breaking rules that Whites are punished for.

108. I see Whites at this installation harassing or excluding Blacks from facilities open to all.

109. I see Blacks receiving discriminatory treatment at military facilities (such as the exchange, commissary, or service club).

110. I hear Whites on this installation refer to Blacks as "boy."

111. I hear Blacks telling racist jokes about Whites.

Please tell us the following things about yourself.

112. Race:

A. White
B. Black
C. Other _____
(Please specify)

113. How old are you?

A. Nineteen years or less
B. Twenty to 23 years
C. Twenty-four to 29 years
D. Thirty years or over

114. Sex:

A. Male
B. Female

115. Rank:

A. E1 - E4
B. E5 - E6
C. E7 - E9
D. WO1 - WO4
E. 01 - 03
F. 04 or higher

116. Highest grade completed in school:

A. Less than high school graduate
B. High school graduate or G. E. D.
C. Some college
D. College degree
E. Advanced college work or degree

117. How long have you been on active duty?

A. Less than one year
B. One to three years
C. Four to nine years
D. Ten to fifteen years
E. More than sixteen years.

118. During your off-duty hours now, how often do you have close personal contact with people of other races?

A. Daily
B. Weekly
C. Monthly
D. Never

APPENDIX B

Factor Analysis Data--Preliminary Field Tryout

PHASE I--BASEWIDE SAMPLE (BLACK-WHITE COMBINED)

I. Perceptions of Racial Discrimination

Construct Half	Cross-Validation Half	Item	
.804	(.784)	36.	Whites get away with breaking rules that Blacks are punished for.
.756	(.788)	33.	Worse punishments (Articles 15, courts-martial, time in stockade) are given out to Black soldiers than to White soldiers for the same types of offenses.*
.750	(.738)	81.	White supervisors and soldiers act as though Blacks have to "earn the right" to be treated equally.
.739	(.775)	23.	A Black soldier must do more than the average White soldier to make the grade.
.723	(.737)	62.	Blacks get more extra work details than White soldiers.
.733	(.718)	68.	White supervisors expect Blacks to do poorly on any jobs other than menial ones.
.735	(.697)	80.	Whites do not show proper respect for Blacks with higher rank.
.703	(.693)	87.	Whites assume that Blacks commit any crime that occurs, such as a barracks theft.
.659	(.623)	14.	White supervisors assume that Blacks have hidden motives when they ask for something.
.681	(.712)	40.	Whites have a better chance than Blacks to get the best training opportunities.
.666	(.619)	70.	There is racial discrimination against blacks on this post.*
.679	(.667)	78.	Whites who supervise Black supervisors question their competence.
.613	(.602)	13.	Most commanders apply the military justice system more fairly to Whites than to Blacks.

*Original RPI Items.

Construct Half	Cross-Validation Half	Item	
.645	(.643)	21.	In my unit Black soldiers get worse jobs and details than White soldiers.*
.652	(.676)	28.	White soldiers and supervisors assume the worst about Blacks in any doubtful situation.
.617	(.630)	32.	Whites give Blacks good reason to distrust Whites.
.607	(.613)	37.	Whites act as though stereotypes about Blacks were true (for example, that Blacks don't sunburn).
.630	(.627)	42.	On this post a Black soldier who works hard can advance as fast as a White soldier who works just as hard.*
.638	(.577)	43.	White supervisors pay little or no attention to Black complaints about off-post discrimination.
.614	(.641)	44.	Whites are not willing to accept criticism from Blacks.
.621	(.603)	52.	Whites assault Blacks just because they're Black.
.655	(.669)	58.	MPs treat Black soldiers worse than they treat White soldiers.*
.627	(.578)	60.	Whites try to force their attitudes and ways upon Blacks.
.567	(.503)	35.	Equal opportunity and treatment regulations are seldom enforced.
.527	(.483)	71.	At stores, bars, theaters, and restaurants off post, I have been treat disrespectfully because of my race.*
.508	(.465)	73.	Whites tend to be very suspicious of any grouping of Blacks, either on or off duty.
.582	(.545)	83.	Whites accuse Blacks of causing trouble and starting fights.
.580	(.514)	84.	NCOs on this post hassle with black soldiers who wear Afro haircut
.505	(.477)	89.	Our sergeant picks soldiers to do certain details on the basis of their race.*
.455	(.443)	29.	There is racial prejudice against Black soldiers in the civilian community surrounding this post.

30

*Original RPI items.

II. Attitude toward Integration

Construct Half	Cross-Validation Half	Item	
.700	(.671)	15.	Blacks should stay with their own group.
.706	(.707)	17.	Blacks and Whites would be better off if they lived and worked only with members of their own races.
.739	(.735)	45.	In my opinion, Blacks and Whites should work in separate groups (all Blacks in one group, all Whites in another group).*
.695	(.680)	63.	After duty hours soldiers should stick together in groups made up of their race only (Blacks only with Blacks and Whites only with Whites).*
.688	(.695)	86.	It might be a good idea to have all-Black and all-White units in the Army.
.617	(.613)	8.	Blacks and Whites should mix together only while they're on duty.*
.602	(.586)	30.	Trying to bring about racial integration is more trouble than it's worth.
.608	(- .594)	39.	It would be a good thing for Blacks and Whites to hang around together after duty hours.*
.597	(.566)	48.	Blacks were better off before this integration business got started.
.615	(- .600)	66.	There should be more close friendships between Blacks and Whites in the Army.*
.550	(- .533)	20.	In the Army I would prefer to live in a barracks that is mixed Blacks and Whites.*
.538	(.536)	50.	If my unit had an NCOIC of a race different than mine, I would dislike it.*
.459	(- .429)	34.	The Army needs race relations programs.
.488	(.491)	57.	A Black who attends an all-Black school is better off as long as it is just as good as a White school.
.464	(.415)	82.	In the long run, dating between Blacks and Whites does more harm than good.
.464	(.443)	85.	Calling attention to racial problems only makes things worse.

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III. Backlash Feelings

Construct Half	Cross-Validation Half	Item	
.661	(.657)	47.	Blacks give Whites good reason to distrust Blacks.
.632	(.630)	49.	Many Blacks have begun to act as if they are superior to Whites.
.646	(.631)	59.	Blacks assault Whites just because they're White.
.580	(.611)	3.	Blacks get away with breaking rules that Whites are punished for.
.577	(.592)	16.	Blacks get extra advantages on this post.*
.563	(.545)	25.	With the same education and skills, a Black soldier gets better treatment than a White soldier.*
.557	(.567)	41.	Blacks frequently cry "prejudice" rather than accept blame for personal faults.
.550	(.483)	46.	Some Blacks get promoted just because they are Black.
.578	(.531)	51.	Blacks are not willing to accept criticism from Whites.
.527	(.537)	9.	If things continue the way they are going, Blacks will get more than their fair share.
.547	(.533)	10.	Black soldiers are not interested in how Whites see things.
.502	(.444)	88.	The reason Black soldiers stick together is to keep out Whites.*
.459	(.465)	56.	There is racial discrimination against Whites on this post.*
.423	(.367)	74.	Black power is a dangerous thing.*
.418	(.420)	61.	Blacks don't take advantage of the educational opportunities that are available to them.
		15	

IV. Racial Climate

Construct Half	Cross-Validation Half	Item	
.603	(.551)	1.	The Army is firmly committed to the principle of equal opportunity.
.611	(.579)	18.	The Army is doing all it can to improve race relations.
.592	(.597)	12.	Race relations in the Army have been getting better during the past year.
.553	(.602)	19.	If the race problem can be solved anywhere, it can be solved in the Army.
.552	(.555)	6.	Race relations in the Army are good.
.476	(.467)	2.	I understand the feelings of people of other races better since I joined the Army.*
.431	(.471)	4.	I like people of other races more since I joined the Army.*
.463	(.531)	24.	The Army is trying to improve off-post treatment of Black soldiers.
.437	(.515)	31.	The Army's equal opportunity programs have been helpful to Black soldiers.

9

RPI Items Not in Any Factor or in Two Factors

Item	
5.	Blacks shouldn't need to give up their cultural identity in order to achieve success.
7.	A country made up of many different races is better off than one that's all one race.
11.	There is more racial discrimination on this Army post than there is in civilian life.*
22.	Most NCOs try to help Blacks with personal matters...
26.	If Blacks want to do well in American society, they need to talk and act more like Whites do.
27.	The Army provides a good career opportunity for Blacks.
38.	Whites were better off before this integration business got started.
53.	At this post I have personally felt discriminated against because of my race.*
54.	If my unit had a commanding officer of a race different from mine, I would like it a lot.*
55.	White officers have more trouble commanding Black enlisted personnel than Black officers do.
64.	A Black soldier with an Afro haircut is showing his dislike of Whites.*
65.	Blacks are trying to get ahead too fast.
67.	There is serious racial tension on this post that may cause widespread violence.*
69.	I trust people of other races less since I joined the Army.*
72.	Different races shouldn't have to give up their values in order to live together.
75.	There are many fights about racial matters on this post.*
76.	At the PX, commissary and other on-post services, I have been treated disrespectfully because of my race.*
77.	Our country is stronger because many different races live here.
79.	If I were in the day room and someone made loud bad remarks about soldiers of my race, I would talk to the person to try to change his mind.*

Contribution of Factors to Original Communality

	Factors			
	I	II	III	IV
Contribution of factor (Vp)	14.79	8.60	8.44	4.54
Percent of total original communality	40.66	23.65	23.20	12.49

APPENDIX C

FACTOR ANALYSIS DATA--INTERSERVICE FIELD TEST

FACTOR ANALYSIS RESULTS

Factor I: Perceived Discrimination Against Blacks

Factor Loading			Item	Question
Blacks	Whites	Total		
-.723	.647	-.759	36.	Whites get away with breaking rules that Blacks are punished for.
-.695	.621	-.731	51.	White enlisted personnel and supervisors act as though Blacks have to "earn the right" to be treated equally.
-.582	.660	-.720	48.	A Black in my service must do more than the average White to make the grade.
-.618	.600	-.699	33.	White supervisors expect Blacks to do poorly on any jobs other than menial ones.
-.566	.581	-.698	24.	Whites assume that Blacks commit any crime that occurs, such as thefts in living quarters.
-.587	.535	-.681	6.	Harsher punishments (Articles 15, courts-martial, etc.) are given out to Black offenders than to White offenders for the same types of offenses.
-.562	.554	-.670	26.	Whites do not show proper respect for Blacks with higher rank.
-.579	.630	-.667	57.	In my unit, Blacks get worse jobs and details than Whites.
-.553	.565	-.661	23.	Whites have a better chance than Blacks to get the best training opportunities.
-.568	.576	-.656	10.	Blacks get more extra work details than Whites.
-.577	.525	-.654	7.	Whites who supervise Black supervisors doubt their competence.
-.509	.514	-.631	46.	Whites give Blacks good reason to distrust Whites.
-.599	.483	-.629	43.	White supervisors assume that Blacks have hidden motives when they ask for something.

Factor Loading			Item	Question
Blacks	Whites	Total		
-.657	.473	-.617	35.	Whites are not willing to accept criticism from Blacks.
-.576	.491	-.613	58.	Most commanders apply the military justice system fairly to Whites but not to Blacks.
-.530	.541	-.609	3.	White enlisted personnel and supervisors assume the worst about Blacks in any doubtful situation.
-.474	.556	-.599	14.	The military police in my service (MPs, APs, SPs) treat Blacks worse than they treat Whites.
-.535	.441	-.575	45.	There is racial discrimination against Blacks on this installation.
-.471	.468	-.565	5.	White supervisors pay little or no attention to Blacks' complaints about discrimination in the civilian community.
-.615	.412	-.555	54.	Whites accuse Blacks of causing trouble and starting fights.
.507	-.425	+.550	40.	On this installation, Blacks who work hard can advance as fast as Whites who work just as hard.
-.482	.443	-.546	16.	Whites act as though stereotypes about Blacks were true (for example, that Blacks don't sunburn).
-.452	.429	-.482	39.	Our supervisor picks people to do certain details on the basis of their race.
-.442	.146	-.469	*70.	At stores, bars, theaters and restaurants in the civilian community, I have been treated disrespectfully because of my race.
-.500	.297	-.464	34.	Equal opportunity and treatment regulations are seldom enforced.
-.532	.259	-.462	*63.	Whites tend to be very suspicious of any grouping of Blacks, either on or off duty.
-.519	.110	-.411	*69.	On this installation, I have personally felt discriminated against because of my race.

27 items

*These items were dropped from the final scale. Referent groups were unclear for items 70 and 69. Item 63 had low factor loading on PDB Scale for Whites.

Factor II: Attitude toward Integration

Factor Loading Blacks	Whites	Total	Item	Question
.779	.734	-.748	29.	Blacks and Whites would be better off if they lived and worked only with members of their own races.
.737	.738	-.745	37.	In my opinion, Blacks and Whites should work in separate groups (all Blacks on one group, all Whites in another group).
.661	.743	-.729	67.	Blacks should stay with their own group.
.703	.709	-.717	38.	Blacks and Whites should mix together "only" while they're on duty.
.661	.680	-.677	19.	It might be a good idea to have all-Black and all-White units in my service.
-.581	-.651	+.640	65.	There should be more close friendships between Blacks and Whites in my service.
-.510	-.659	+.632	47.	It would be a good thing for Blacks and Whites to hang around together after duty hours.
.595	.649	-.646	13.	After duty hours, enlisted personnel should stick together in groups made up of their race only (Blacks only with Blacks, and Whites only with Whites).
.565	.605	-.591	20.	Trying to bring about racial integration is more trouble than it's worth.
-.557	-.596	+.588	31.	In my service, I would prefer to live in quarters that are mixed racially.
.546	.545	-.550	32.	If my unit had a supervisor of a race different from mine, I would dislike it.
.501	.544	-.524	60.	A Black who attends an all-Black school is better off as long as it is just as good as a White school.
.509	.490	-.484	4.	Blacks were better off before this integration business got started.
-.350	-.430	-.401	17.	My service needs race relations programs.
.392	.358	-.363	55.	Calling attention to racial problems only makes things worse.

15 items

Factor III: White Backlash Feelings

Factor Loading Blacks	Whites	Total	Item	Question
.525	-.662	-.667	66.	Blacks assault Whites just because they're White.
.604	-.674	-.690	72.	Blacks give Whites good reason to distrust Blacks.
.518	-.695	-.683	73.	Many Blacks have begun to act as if they are superior to Whites.
.519	-.659	-.665	56.	Blacks frequently cry "prejudice" rather than accept blame for personal faults.
.453	-.630	-.659	62.	Blacks get away with breaking rules that Whites are punished for.
.414	-.645	-.620	68.	Blacks are not willing to accept criticism from Whites.
.431	-.587	-.620	18.	Blacks get extra advantages on this installation.
.398	-.618	-.597	27.	Blacks in my service are not interested in how Whites see things.
.408	-.566	-.575	59.	The reason Blacks stick together is to keep out Whites.
.532	-.470	-.546	15.	Blacks are trying to get ahead too fast.
.259	-.540	-.543	9.	If things continue the way they are going, Blacks will get more than their fair share.
.393	-.472	-.502	41.	Some Blacks get promoted just because they are Black.
.531	-.505	-.493	71.	Blacks don't take advantage of the educational opportunities that are available to them.
.281	-.435	-.488	2.	With the same education and skills, Black personnel get better treatment than Whites.
.451	-.472	-.459	22.	There is racial discrimination against Whites on this installation.
.315	-.403	-.441	42.	Black power is a dangerous thing.

16 items

Factor IV: Racial Climate

Factor Loading Blacks	Whites	Total	Item	Question
-.644	.557	.621	28.	Race relations in my service are good.
-.617	.480	.574	1.	Race relations in my service have been getting better during the past year.
-.619	.536	.560	50.	My service's equal opportunity programs have been helpful to Blacks in the service.
-.470	.598	.549	44.	My service is trying to improve treatment of Black service men and women in the civilian community.
-.498	.557	.547	30.	My service is doing all it can to improve race relations.
-.553	.521	.530	21.	If the race problem can be solved anywhere, it can be solved in my service.
-.479	.564	.514	12.	My service is firmly committed to the principle of equal opportunity.
-.497	.378	.454	49.	I like people of other races more since I joined the service.
.426	-.513	-.479	8.	There is more racial discrimination on this military installation than there is in civilian life.
-.494	.400	.445	11.	I understand the feelings of people of other races better since I joined the service.
.338	-.396	-.425	52.	There is serious racial tension in my service.
-.509	.463	.428	61.	My service provides a good career opportunity for Blacks.

12 items

Variance Explained by Factors

Estimates on the percent of variance explained by each of the factors computed for the total sample and by race separately are outlined as follows:

	PDB	ATI	WBF	RC	Explained Total Variance
Total v/p	14.99	11.17	9.95	5.71	41.82
Black v/p	13.47	9.33	5.93	6.12	34.85
White v/p	10.02	10.44	10.75	5.82	37.03

The total amount of variance explained by the RPI items in the four factors is 41.82 percent for the total sample and when computed separately by race, 34.85 percent and 37.03 percent for Blacks and Whites respectively. For the combined sample PDB accounts for approximately 15 percent of the variance. The remaining scales are ATI (11 percent), WBF (10 percent) and RC (6 percent).

For Blacks the factor accounting for the highest variance is PDB. For Whites there is very little difference among the PDB, ATI, and WBF scales.

APPENDIX D

IDB ITEMS BY CONTENT WITH MEAN FREQUENCY OF OCCURRENCE AND MEAN TENSION SCORES BY RACE

	Item	f (x̄) Whites	f (x̄) Blacks	T (x̄) Whites	T (x̄) Blacks
Harassment Items	2	2.87	3.03	2.80	2.93
	3	2.50	1.91	3.01	2.73
	9	2.81	2.78	2.76	2.98
	13	2.32	2.62	2.55	2.62
	20	2.34	3.21	2.73	3.00
	22	2.43	2.34	2.85	3.36
	30	1.73	2.25	2.82	2.94
	33	2.12	1.94	3.28	3.09
	35	2.79	2.68	3.24	3.52
	39	1.63	2.01	3.27	3.31
	41	2.28	2.94	2.95	3.32
	42	2.22	2.67	2.60	2.77
System Treatment Items	4	1.74	2.44	2.73	2.85
	6	1.43	1.73	2.72	2.72
	10	2.03	2.06	2.68	2.65
	12	1.67	1.61	2.66	2.63
	16	1.58	2.48	2.50	2.80
	24	1.58	2.79	2.88	3.00
	37	1.36	1.97	2.87	2.98
	38	2.16	1.76	2.82	2.83
	40	1.51	2.19	3.01	3.16
Self-Segregation	1	3.23	3.55	1.99	2.12
	18	3.94	3.88	1.98	1.19
	23	3.13	3.40	2.10	2.02
	29	3.81	3.85	1.76	1.67
Supervisor Treatment Items	5	1.84	2.84	2.51	2.64
	7	1.67	2.80	2.65	2.72
	8	1.54	2.81	2.71	2.86
	11	1.63	1.80	2.64	2.65
	14	1.51	2.55	2.70	2.88
	15	1.62	2.65	2.85	3.00
	17	1.61	2.72	2.60	2.80

- Continued -

Item	f (x̄)		T (x̄)	
	Whites	Blacks	Whites	Blacks
19	1.81	2.84	2.48	2.53
21	1.61	2.11	2.41	2.50
25	1.67	1.95	2.55	2.63
26	1.57	2.58	2.82	3.01
27	1.54	1.79	2.63	2.71
31	1.65	2.04	2.56	2.62
32	1.62	1.79	2.75	2.82
34	1.63	1.75	2.62	2.72
36	1.57	1.90	2.78	2.82

ARI Distribution List

4 DASD (M&RA)
2 HQDA (DAMI-CSZ)
1 HQDA (DAPE-PBR
1 HQDA (DAMA-AR)
1 HQDA (DAPE-HRE-PO)
1 HQDA (SGRD-ID)
1 HQDA (DAMI-DOT-C)
1 HQDA (DAPC-PMZ-A)
1 HQDA (DACH-PPZ-A)
1 HQDA (DAPE-HRE)
1 HQDA (DAPE-MPO-C)
1 HQDA (DAPE-DW)
1 HQDA (DAPE-HRL)
1 HQDA (DAPE-CPS)
1 HQDA (DAFD-MFA)
1 HQDA (DARD-ARS-P)
1 HQDA (DAPC-PAS-A)
1 HQDA (DUSA-DR)
1 HQDA (DAMO-RQR)
1 HQDA (DASG)
1 HQDA (DA10-PI)
1 Chief, Consult Div (DA-DTSG), Adelphi, MD
1 Mil Asst, Hum Res, DDDR&E, DAD (E&LS)
1 HQ USARAL, APO Seattle, ATTN: ARAGP-R
1 HQ First Army, ATTN: AFKA-DI-TI
2 HQ Fifth Army, Ft Sam Houston
1 Dir, Army Stf Studies Ofc, ATTN: OAVCSA (DSP)
1 Ofc Chief of Stf, Studies Ofc
1 DCSPER, ATTN: CPS/DCP
1 The Army Lib, Pentagon, ATTN: RSB Chief
1 The Army Lib, Pentagon, ATTN: ANRAL
1 Ofc, Asst Sect of the Army (R&D)
1 Tech Support Ofc, OJCS
1 USASA, Arlington, ATTN: IARD-T
1 USA Rsch Ofc, Durham, ATTN: Life Sciences Dir
2 USARIEM, Natick, ATTN: SGRD-UE-CA
1 USATTC, Ft Clayton, ATTN: STETC-MO-A
1 USAIMA, Ft Bragg, ATTN: ATSU-CTD-DM
1 USAIMA, Ft Bragg, ATTN: Marquat Lib
1 US WAC Ctr & Sch, Ft McClellan, ATTN: Lib
1 US WAC Ctr & Sch, Ft McClellan, ATTN: Tng Dir
1 USA Quartermaster Sch, Ft Lee, ATTN: ATSM-TE
1 Intelligence Material Dev Ofc, EWL, Ft Holabird
1 USA SE Signal Sch, Ft Gordon, ATTN: ATSO-EA
1 USA Chaplain Ctr & Sch, Ft Hamilton, ATTN: ATSC-TE-RD
1 USATSCH, Ft Eustis, ATTN: Educ Advisor
1 USA War College, Carlisle Barracks, ATTN: Lib
2 WRAIR, Neuropsychiatry Div
1 DLI, SDA, Monterey
1 USA Concept Anal Agcy, Bethesda, ATTN: MOCA-WGC
1 USA Concept Anal Agcy, Bethesda, ATTN: MOCA-MR
1 USA Concept Anal Agcy, Bethesda, ATTN: MOCA-JF
1 USA Artic Test Ctr, APO Seattle, ATTN: STEAC-MD-ASL
1 USA Artic Test Ctr, APO Seattle, ATTN: AMSTE-PL-TS
1 USA Armament Cmd, Redstone Arsenal, ATTN: ATSK-TEM
1 USA Armament Cmd, Rock Island, ATTN: AMSAR-TDC
1 FAA-NAFEC, Atlantic City, ATTN: Library
1 FAA-NAFEC, Atlantic City, ATTN: Hum Engr Br
1 FAA Aeronautical Ctr, Oklahoma City, ATTN: AAC-44D
2 USA Fld Arty Sch, Ft Sill, ATTN: Library
1 USA Armor Sch, Ft Knox, ATTN: Library
1 USA Armor Sch, Ft Knox, ATTN: ATSB-DI-E
1 USA Armor Sch, Ft Knox, ATTN: ATSB-DT-TP
1 USA Armor Sch, Ft Knox, ATTN: ATSB-CD-AD
2 HQUSACDEC, Ft Ord, ATTN: Library
1 HQUSACDEC, Ft Ord, ATTN: ATEC-EX-E-Hum Factors
2 USAEEC, Ft Benjamin Harrison, ATTN: Library
1 USAPACDC, Ft Benjamin Harrison, ATTN: ATCP-HR
1 USA Comm-Elect Sch, Ft Monmouth, ATTN: ATSN-EA
1 USAEC, Ft Monmouth, ATTN: AMSEL-CT-HDP
1 USAEC, Ft Monmouth, ATTN: AMSEL-PA-P
1 USAEC, Ft Monmouth, ATTN: AMSEL-SI-CB
1 USAEC, Ft Monmouth, ATTN: C, Facl Dev Br
1 USA Materials Sys Anal Agcy, Aberdeen, ATTN: AMXSY-P
1 Edgewood Arsenal, Aberdeen, ATTN: SAREA-BL-H
1 USA Ord Ctr & Sch, Aberdeen, ATTN: ATSL-TEM-C
2 USA Hum Engr Lab, Aberdeen, ATTN: Library/Dir
1 USA Combat Arms Tng Bd, Ft Benning, ATTN: Ad Supervisor
1 USA Infantry Hum Rsch Unit, Ft Benning, ATTN: Chief
1 USA Infantry Bd, Ft Benning, ATTN: STEBC-TE-T
1 USASMA, Ft Bliss, ATTN: ATSS-LRC
1 USA Air Def Sch, Ft Bliss, ATTN: ATSA-CTD-ME
1 USA Air Def Sch, Ft Bliss, ATTN: Tech Lib
1 USA Air Def Bd, Ft Bliss, ATTN: FILES
1 USA Air Def Bd, Ft Bliss, ATTN: STEBD-PD
1 USA Cmd & General Stf College, Ft Leavenworth, ATTN: Lib
1 USA Cmd & General Stf College, Ft Leavenworth, ATTN: ATSW-SE-L
1 USA Cmd & General Stf College, Ft Leavenworth, ATTN: Ed Advisor
1 USA Combined Arms Cmbt Dev Act, Ft Leavenworth, ATTN: DepCdr
1 USA Combined Arms Cmbt Dev Act, Ft Leavenworth, ATTN: CCS
1 USA Combined Arms Cmbt Dev Act, Ft Leavenworth, ATTN: ATCASA
1 USA Combined Arms Cmbt Dev Act, Ft Leavenworth, ATTN: ATCACO-E
1 USA Combined Arms Cmbt Dev Act, Ft Leavenworth, ATTN: ATCACC-CI
1 USAECDM, Night Vision Lab, Ft Belvoir, ATTN: AMSEL-NV-SD
3 USA Computer Sys Cmd, Ft Belvoir, ATTN: Tech Library
1 USAMERDC, Ft Belvoir, ATTN: STSFB-DQ
1 USA Eng Sch, Ft Belvoir, ATTN: Library
1 USA Topographic Lab, Ft Belvoir, ATTN: ETL-TD-S
1 USA Topographic Lab, Ft Belvoir, ATTN: STINFO Center
1 USA Topographic Lab, Ft Belvoir, ATTN: ETL-GSL
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: CTD-MS
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATS-CTD-MS
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-TE
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-TEX-GS
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-CTS-OR
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-CTD-DT
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-CTD-CS
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: DAS/SRD
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-TEM
1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: Library
1 CDR, HQ Ft Huachuca, ATTN: Tech Ref Div
2 CDR, USA Electronic Prvg Grd, ATTN: STEEP-MT-S
1 CDR, Project MASSTER, ATTN: Tech Info Center
1 Hq MASSTER, USATRADDC, LND
1 Research Institute, HQ MASSTER, Ft Hood
1 USA Recruiting Cmd, Ft Sheridan, ATTN: USARCPM-P
1 Senior Army Adv., USAFAGDD/TAC, Elgin AF Aux Fld No. 9
1 HQ USARPAC, DCSPER, APO SF 96558, ATTN: GPPE-SE
1 Stimson Lib, Academy of Health Sciences, Ft Sam Houston
1 Marine Corps Inst., ATTN: Dean-MCI
1 HQUSMC, Commandant, ATTN: Code MTMT 51
1 HQUSMC, Commandant, ATTN: Code MPI-20
2 USCG Academy, New London, ATTN: Admission
2 USCG Academy, New London, ATTN: Library
1 USCG Training Ctr, NY, ATTN: CO
1 USCG Training Ctr, NY, ATTN: Educ Svc Ofc
1 USCG, Psychol Res Br, DC, ATTN: GP 1/62
1 HQ Mid-Range Br, MC Det, Quantico, ATTN: P&S Div

1 US Marine Corps Liaision Ofc, AMC, Alexandria, ATTN: AMCGS-F
1 USATRADOC, Ft Monroe, ATTN: ATRO-ED
6 USATRADOC, Ft Monroe, ATTN: ATPR-AD
1 USATRADOC, Ft Monroe, ATTN: ATTS-EA
1 USA Forces Cmd, Ft McPherson, ATTN: Library
2 USA Aviation Test Bd, Ft Rucker, ATTN: STEBG-PO
1 USA Agcy for Aviation Safety, Ft Rucker, ATTN: Library
1 USA Agcy for Aviation Safety, Ft Rucker, ATTN: Educ Advisor
1 USA Aviation Sch, Ft Rucker, ATTN: PO Drawer O
1 HQUSA Aviation Sys Cmd, St Louis, ATTN: AMSAV-ZDR
2 USA Aviation Sys Test Act., Edwards AFB, ATTN: SAVTE-T
1 USA Air Def Sch, Ft Bliss, ATTN: ATSA TEM
1 USA Air Mobility Rsch & Dev Lab, Moffett Fld, ATTN: SAVDL-AS
1 USA Aviation Sch, Res Tng Mgt, Ft Rucker, ATTN: ATST-T-RTM
1 USA Aviation Sch, CO, Ft Rucker, ATTN: ATST-D-A
1 HQ, DARCOM, Alexandria, ATTN: AMXCD-TL
1 HQ, DARCOM, Alexandria, ATTN: CDR
1 US Military Academy, West Point, ATTN: Serials Unit
1 US Military Academy, West Point, ATTN: Ofc of Milt Ldrshp
1 US Military Academy, West Point, ATTN: MAOR
1 USA Standardization Gp, UK, FPO NY, ATTN: MASE-GC
1 Ofc of Naval Rsch, Arlington, ATTN: Code 452
3 Ofc of Naval Rsch, Arlington, ATTN: Code 458
1 Ofc of Naval Rsch, Arlington, ATTN: Code 450
1 Ofc of Naval Rsch, Arlington, ATTN: Code 441
1 Naval Aerospc Med Res Lab, Pensacola, ATTN: Acous Sch Div
1 Naval Aerospc Med Res Lab, Pensacola, ATTN: Code L51
1 Naval Aerospc Med Res Lab, Pensacola, ATTN: Code L5
1 Chief of NavPers, ATTN: Pers-OR
1 NAVAIRSTA, Norfolk, ATTN: Safety Ctr
1 Nav Oceanographic, DC, ATTN: Code 6251, Charts & Tech
1 Center of Naval Anal, ATTN: Doc Ctr
1 NavAirSysCom, ATTN: AIR-5313C
1 Nav BuMed, ATTN: 713
1 NavHelicopterSubSqua 2, FPO SF 96601
1 AFHRL (FT) William AFB
1 AFHRL (TT) Lowry AFB
1 AFHRL (AS) WPAFB, OH
2 AFHRL (DOJZ) Brooks AFB
1 AFHRL (DOJN) Lackland AFB
1 HQUSAF (INYSD)
1 HQUSAF (DPXXA)
1 AFVTG (RD) Randolph AFB
3 AMRL (HE) WPAFB, OH
2 AF Inst of Tech, WPAFB, OH, ATTN: ENE/SL
1 ATC (XPTD) Randolph AFB
1 USAF AeroMed Lib, Brooks AFB (SUL-4), ATTN: DOC SEC
1 AFOSR (NL), Arlington
1 AF Log Cmd, McClellan AFB, ATTN: ALC/DPCRB
1 Air Force Academy, CO, ATTN: Dept of Bel Scn
5 NavPers & Dev Ctr, San Diego
2 Navy Med Neuropsychiatric Rsch Unit, San Diego
1 Nav Electronic Lab, San Diego, ATTN: Res Lab
1 Nav TrngCen, San Diego, ATTN: Code 9000-Lib
1 NavPostGraSch, Monterey, ATTN: Code 55Aa
1 NavPostGraSch, Monterey, ATTN: Code 2124
1 NavTrngEquipCtr, Orlando, ATTN: Tech Lib
1 US Dept of Labor, DC, ATTN: Manpower Admin
1 US Dept of Justice, DC, ATTN: Drug Enforce Admin
1 Nat Bur of Standards, DC, ATTN: Computer Info Section
1 Nat Clearing House for MH-Info, Rockville
1 Denver Federal Ctr, Lakewood, ATTN: BLM
12 Defense Documentation Center
4 Dir Psych, Army Hq, Russell Ofcs, Canberra
1 Scientific Advsr, Mil Bd, Army Hq, Russell Ofcs, Canberra
1 Mil and Air Attache, Austrian Embassy
1 Centre de Recherche Des Facteurs, Humaine de la Defense Nationale, Brussels
2 Canadian Joint Staff Washington
1 C/Air Staff, Royal Canadian AF, ATTN: Pers Std Anal Br
3 Chief, Canadian Def Rsch Staff, ATTN: C/CRDS(W)
4 British Def Staff, British Embassy, Washington
1 Def & Civil Inst of Enviro Medicine, Canada
1 AIR CRESS, Kensington, ATTN: Info Sys Br
1 Militaerpsykologisk Tjeneste, Copehagen
1 Military Attache, French Embassy, ATTN: Doc Sec
1 Medecin Chef, C.E.R.P.A.-Arsenal, Toulon/Naval France
1 Prin Scientific Off, Appl Hum Engr Rsch Div, Ministry of Defense, New Delhi
1 Pers Rsch Ofc Library, AKA, Israel Defense Forces
1 Ministeris van Defensie, DOOP/KL Afd Sociaal Psychologische Zaken, The Hague, Netherlands