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**Selection of Qualified Army Enlistees:
Pre- and Post-Enlistment
Response to Selected Biographic and
Attitudinal Questionnaires**

by
Theodore H. Rosen
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June 19

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reception stations to determine differences in response patterns associated with test administration location. Test-retest reliabilities were determined on each instrument. Relationships between the individual tests at each testing location (recruiting station, AFES, reception station) were also examined.

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INTRODUCTION

The development of a procedure allowing the Army to identify those applicant for enlistment who, although qualifying on regular physical and mental criteria, will be unable to make a satisfactory adjustment to Army life, was identified as an area for research by the Army Research Institute. To this end, analyses were performed on applicant responses to four experimental instruments.*

The instruments were administered at recruiting stations (RECRTS), AFEES, and reception stations (RECPTS) to determine whether there are differences in response patterns associated with the test administration location. This was accomplished by developing item score results for all questions on the EP, EEQ, and WYO, and by comparing total scores on the WEPS as well as on the WYO, EP, and EEQ. Subjects who repeated one or more of the tests at more than one location were separated from the main non-repeater sample, and additional analyses were performed on their responses. These analyses examined each questionnaire's test-retest reliability.

Relationships between the individual tests completed by the non-repeater sample were also examined, using correlational techniques, at each level of the staged manpower procurement process (SMPP), i.e., RECRTS, AFEES, and RECPTS. The variables included in this analysis were the AFQT percentile score, the EP score, the EEQ score, the WEPS score, and the WYO score.

*The four instruments are: the Early Experience Questionnaire (EEQ); What's Your Opinion? Questionnaire (WYO); the Enlistee Profile 1975 (EP); and the Work Environment Preference Schedule (WEPS).

METHOD

Overview

Questionnaires were administered to 6682 Regular Army (RA), male, non-prior-service (NPS) personnel at installations in the Northeastern and Southeastern Regional Recruiting Commands and at the Fort Dix, New Jersey, and Fort Jackson, South Carolina, reception stations. Installations in the recruiting commands included recruiting stations, AFEES, and reception stations. A list of participating installations is found in Appendix A.

The purpose of these questionnaires was to gather biographic and attitudinal data from samples of potential and new Army recruits in order to develop and validate motivational measures to aid in the future selection of quality enlisted personnel.

Research Instruments

A. Early Experience Questionnaire (EEQ)--The EEQ surveys the respondent regarding facts and opinions of his past experiences. It contains thirty-six multiple-choice statements.

B. Work Environment Preference Schedule (WEPS)--The WEPS is a commercially-available inventory designed to measure an individual's attitudes concerning structured organizations. It consists of 24 forced-choice items.

C. What's Your Opinion?(WYO)--The WYO was developed to reveal a respondent's opinions and attitudes toward authority. It consists of six items, each of which is answered on a continuum from "strongly agree" to "strongly disagree."

D. Enlistee Profile 1975 (EP)--The EP is a 67-item biographical information survey. The questions concern the respondent, his family, his school and work background, and his thoughts and ideas.

Sample

The sample consisted of 6682 RA, male, NPS personnel. Testing was conducted during late Spring and Summer 1975 at all the installations. Table 1 presents the number of each test taken at each stage or level in the SMPP.*

Table 1. NUMBER OF EACH TEST TAKEN AT EACH LEVEL IN THE SMPP

<u>TEST</u>	<u>RECRTS</u>	<u>AFEES</u>	<u>RECEPS</u>
WEPS	713	920	1024
EP	776	1412	2252
EEQ	928	1990	2269
WYO	837	1847	3304

Most of the respondents did not take all four, or even three tests. Of 6682 respondents, a total of 1023 took all four tests. (See Table 2.)

Table 3 describes the number and nature of the repeater subsample, that is, persons taking any one test at more than one level of the SMPP.

*Fourteen hundred and twenty-eight took the WYO-WEPS-EEQ combination. This is important because this combination is the form in which most of the questionnaires were distributed. Thus, it appears that local administrative procedures varied somewhat from one testing center to another. This does not affect the funneling analysis, since the data are treated in aggregate form, but it does reduce the number of individuals available for the test-retest analysis, which required coded identification of respondents who repeated tests at different levels. However, the data search uncovered a considerable number of repeat individuals.

Table 2. COMBINATION OF TESTS TAKEN BY LEVEL

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DRC	0	14	64	125	0	36	169	135	0	18	25	84	0	59	455
N=1184															
AFEES	0	51	83	137	0	173	625	310	0	37	10	188	0	665	202
N=2481															
RC	1	26	4	0	0	474	634	85	0	1005	1	0	0	795	366
N=3391															

Table 3. REPEATED TESTS AMONG LEVELS OF THE SMPP

<u>TEST</u>	<u>LEVEL COMBINATIONS</u>			
	<u>RECRTS- AFEES</u>	<u>AFEES- RECPTS</u>	<u>RECRTS- RECPTS</u>	<u>RECRTS- AFEES- RECPTS</u>
WEPS	18	28	1	0
EP	24	130	5	3
EEQ	36	141	8	1
WYO	37	204	13	4

The repeater subsample described in Table 3 is important since they will allow for some limited longitudinal analysis between processing points.

Administrative Procedures

The questionnaires were administered at the designated locations during normal testing periods used by the Army for aptitude and mental testing. Although these questionnaire are experimental, the administrators were told to treat them as a routine operational requirement. Each questionnaire has its own set of instructions which are self-explanatory. The only specific instruction to the administrators was to give the WYO last.

Following the completion of testing at the Recruiting Stations, the materials were returned to ARI. At AFEES and RECPTS, completed materials were returned weekly to ARI. Data were then converted into a computer tape format for analysis.

RESULTS

The four questionnaires provided a wide range of demographic, bibliographic, behavioral, and attitudinal information. The results of item comparisons appear in Tables of Item Statistics.* In this section of the report, each item will be compared across all three levels of administration. Only those comparisons which show important differences between levels will be presented in this discussion. All other items may be assumed to have shown little or no difference between administration locations.

The analysis will be discussed in terms of qualitative differences. Because of the large samples used, statistical significance between means on item distributions or scores appears with only slight differences in numeric scores. In order to present a more meaningful explanation of the data, an arbitrary difference in means of .3 was chosen to be the qualitative significant value for our discussion. (This is beyond the .01 level of significance for items with five response categories.) On descriptive items, category frequencies with over six percentage point differences in their classes were selected arbitrarily in order to facilitate the discussion of results.

NON-REPEATER SAMPLE

Early Experience Questionnaire: The EEQ has 36 items dealing with attitudes and scholastic, community and family activities. Qualitative significance or trend patterns were found on eight of these items, each of which will be discussed below.

Individuals from each successive SMPP reported receiving lower grades in school. The individuals at the RECRTS reported having higher

*HumRRO Special Report No. SR-ED-76-19-4, June 1976.

grades than the people at AFES, and in turn at the RECPTS. Table 4 illustrates these results. Item alternatives go from mostly D's and below (1) through mostly A's (5).

Table 4: SCHOOL GRADES

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECPTS	2.23	1.40	872
AFES	2.00	1.41	1729
RECPTS	1.94	1.29	2098

Asked what did the most to make them enlist, a majority of subjects at all three levels said educational benefits. However, considerably more RECPTS subjects gave the reason to "make good money" as a second choice (24.9%) than the AFES (15.2%) and RECPTS (17.3%) individuals. Also, RECPTS subjects (12.4%) said "good place to be in peacetime" much more often than AFES (4.7%) and RECPTS (3.7%) individuals.

Enlistees at the RECPTS indicated that friends (51.6% versus 38.2% for RECPTS people and 40.5% for AFES people) told them they should not join the Army as opposed to family or no one telling them not to enlist. At the same time, RECPTS (35.1%) and AFES (37.4%) men said no one told them not to join the Army more than enlistees at the RECPTS (24%).

A behavioral question which shows an interesting resultant trend asked when the subjects first skipped school. 48.4% of RECPTS people first skipped school before they were 16 years old as compared to 42.6% of the AFES and 38.7% of the RECPTS subjects. 33.5% of the RECPTS subjects never skipped school, 29.7% of the AFES subjects never skipped school, and 23.8% of the RECPTS subjects never skipped school. Table 5 illustrates the results of this question.

Table 5 : Age When Subjects First Skipped School

<u>Location</u>	<u>Item Alternatives</u>					
	<u>16 or Younger</u>		<u>Older than 16</u>		<u>Never</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
RECRS	336	38.7	242	27.8	291	33.5
AFEES	723	42.6	471	27.7	504	29.7
RECPTS	1012	48.4	581	27.8	498	23.8

Although approximately equal percentages of subjects from each of the three levels of the SMPP first attended a beer party after they were sixteen years old, there is an increasing probability that a person further in the SMPP attended his first beer party prior to being sixteen years old. Fewer men at the RECPTS (19.0%) report having never been to a beer party than men at both the RECRS (29.8%) and men at the AFEES (26.1%). See Table 6 for the responses to this question.

Table 6 : Age When Subjects First Attended Beer Party

<u>Location</u>	<u>Item Alternatives</u>					
	<u>16 or Younger</u>		<u>Older than 16</u>		<u>Never</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
RECRS	248	28.7	359	41.5	258	29.8
AFEES	524	30.9	724	43.0	440	26.1
RECPTS	774	37.0	920	44.0	398	19.0

All the subjects were asked how old they were when they were first tattooed. There were significant results as shown in Table 7.

Table 7 : Age When Subjects First Got Tattooed

<u>Location</u>	<u>Item Alternatives</u>					
	<u>16 or Younger</u>		<u>Older than 16</u>		<u>Never</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
RECRTS	74	8.6	120	13.9	670	77.5
AFEES	90	5.4	86	5.1	1504	89.5
RECPTS	95	4.5	120	5.7	1875	89.7

RECRTS people (22.5%) have a much higher tattoo rate than men at the AFEES (10.5%) and at the RECPTS (10.3%) level, especially those having been tattooed when over 16 years of age.

Considerably more subjects at the RECRTS level reported their first gang fight to have occurred after they had reached 16 years of age (14.8% of the RECRTS sample as opposed to 8.7% and 7.4% at the AFEES and RECPTS levels respectively). Also, men at the RECRTS level (34.5%) reported having been in gang fights more often than men at the AFEES (28.1%) and RECPTS (26.1%) levels. See Table 8 for the results of this item.

Table 8 : Age When Subjects Were First Involved in a Gang Fight

<u>Location</u>	<u>Item Alternatives</u>					
	<u>16 or Younger</u>		<u>Older than 16</u>		<u>Never</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
RECRTS	171	19.7	128	14.8	568	65.5
AFEES	325	19.4	145	8.7	1205	71.9
RECPTS	391	18.7	155	7.4	1546	73.9

The remainder of the items revealed no other qualitatively significant results, although due to the large sample sized, statistical significance was readily obtainable. Discussion of the results will appear in the discussion section of this report.

Enlistee Profile 1975: The Enlistee Profile 1975 (EP) is a biographical information questionnaire containing 67 items. Qualitatively significant results will be discussed in terms of trends in response patterns over levels of the SMPP and large (.3) differences in alternative means.

In the non-repeater subsample the demographic of race showed definite patterns throughout the SMPP. The significant results were confined to three racial groups: Caucasian/White (CW), Negro/Black/Afro-American (NBA), and Puerto Rican (PR). The changes are presented in Table 9 and are readily recognizable.

Table 9: RACE (% OF SAMPLE)

<u>Location</u>	<u>Racial Group</u>		
	<u>CW</u>	<u>NBA</u>	<u>PR</u>
RECRTS	56.4	39.8	.5
AFEES	53.3	39.1	4.2
RECPTS	63.4	26.0	4.5

There are increases in the proportion of CW's and PR's from time of initial visit to the recruiter's office to the time of enlistment at the RECPTS. At the same time, there are decreases in the NBA category.

The subjects were asked their marital status. At each step of the SMPP there is an increase in probability of being married in the non-repeater sample: RECRTS - 12.5% married; AFEES - 16.4% married; RECPTS - 17.8% married.

Not including GED people, the highest grade completed in school showed a decrease from 12th to 11th grade. The frequencies are described in Table 10.

Table 10: HIGHEST GRADE FINISHED IN SCHOOL (% OF SAMPLE)

<u>Location</u>	<u>Grade</u>							
	<u>8th or Lower</u>	<u>9th</u>	<u>10th</u>	<u>11th</u>	<u>12th</u>	<u>1 Year College</u>	<u>2-3 Years College</u>	<u>Graduate or Above</u>
RECRTS	1.3	4.1	7.4	17.7	55.2	8.0	4.1	2.2
AFEES	2.6	5.1	11.4	20.7	42.0	8.8	6.6	2.7
RECPTS	2.8	6.4	15.9	15.0	42.9	8.2	4.8	4.0

Another finding from Table 10 is that the number of subjects having any college experience increased from 14.3% at the RECRTS level to 18.1% at the AFEES level. At the RECRTS level the frequency dropped to 17%, still higher than the RECPTS level.

On a continuum from 1 (very often) to 5 (never), the subjects were asked how often they considered quitting school. RECRTS subjects considered quitting much more often than the AFEES and RECPTS subjects as illustrated in Table 11.

Table 11: (% OF SAMPLE) HOW OFTEN THOUGHT ABOUT QUITTING SCHOOL

<u>Location</u>	<u>Very Often</u>	<u>Often</u>	<u>Sometimes</u>	<u>Almost Never</u>	<u>Never</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	8.7	12.8	31.4	17.6	29.5	3.46	1.27	743
AFEES	7.6	8.8	21.6	19.5	42.5	3.80	1.28	1255
RECPTS	8.5	11.5	20.5	21.0	38.5	3.70	1.31	2043

The subjects were asked to pick the one statement out of five that is most descriptive of themselves. Although it is difficult to make conclusions from the data, the descriptions are worth noting because of the differences of results by location. See Table 12 for the results.

Table 12: MOST DESCRIPTIVE OF SELF (% OF NON-REPEATER SAMPLES AT EACH LOCATION)

<u>Statement</u>	<u>Location</u>		
	<u>RECRTS</u>	<u>AFEES</u>	<u>RECPTS</u>
I don't like getting up at the same time every morning.	11.1	10.6	11.9
I do not like other people telling me what to do.	7.7	4.0	5.1
I do not like rules and regulations.	15.0	5.5	5.7
I do not like doing the same thing over and over.	52.8	63.3	61.2
I do not like being with people who are not like me.	13.3	16.6	16.0

Subjects at the RECPTS do not object to repetitive behavior as much as individuals at the AFEES and RECPTS. RECPTS subjects object more to rules and regulations than do AFEES and RECPTS persons.

In discussing their job history, RECPTS subjects indicated that they had fewer full-time jobs than AFEES people who in turn had fewer full-time jobs than RECPTS individuals. The response alternatives were on a continuum from 1 (none) to 5 (4 or more jobs). The comparative means from the three levels of the SMPP of the non-repeater sample are presented in Table 13.

Table 13: FULL-TIME JOBS HELD

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	2.41	1.36	744
AFEES	2.88	1.48	1255
RECPTS	3.01	1.53	2039

The last item in which differences in responses based on location were evidenced concerned letter-writing by the respondents to their parents. As shown in Table 14, frequency of potential letter-writing increases as the individual proceeds through the SMPP.

Table 14: FREQUENCY (%) OF POTENTIAL CORRESPONDENCE TO PARENTS

<u>Location</u>	<u>Almost Every Day</u>	<u>Once or Twice a Week</u>	<u>Once or Twice a Month</u>	<u>Not Often</u>	<u>Not at All</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	1.3	36.2	42.9	13.3	3.2	2.75	.86	743
AFEES	4.7	43.7	41.9	8.7	1.0	2.58	.76	1256
RECPTS	5.6	52.9	32.5	7.3	1.8	2.47	.78	2043

What's Your Opinion? Questionnaire: On the six-item WYO questionnaire, interpretation of items are made in terms of respondents' acceptance of authority. All WYO items were answered on a continuum from "strongly agree" (1) to "strongly disagree" (6), with keyed points on each continuum. Table 15 presents the results from the first item displaying large differences in location score means.

Table 15: ITEM: There are more problems in the world today because young people don't accept the ideas and ways of their elders.

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	3.09	1.66	618
AFEES	3.42	1.78	1579
RECPTS	3.47	1.78	2009

As shown in Table 15, there is a mean attitude shift from the Recruiting Station level to both the AFEES and Reception Station levels. The shift is from mildly agreeing with the statement toward mildly disagreeing with it. The keyed alternatives for the acceptance of authority scale are "mildly agreeing" and "moderately agree." The results indicate an attitude shift away from acceptance of authority when comparing recruiting station men to men at the AFEES and reception station.

The second item demonstrating response differences at separate SMPP locations is presented in Table 16.

Table 16: ITEM: If young people are allowed a great deal of personal freedom and aren't strictly disciplined, it is better for our country in the long run.

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	3.54	1.54	618
AFEES	3.82	1.61	1578
RECPTS	4.01	1.57	2030

From Table 16 it can be seen that there is a distinct trend in attitude shift, first from the recruiting station level to the AFEES level, and again to the reception station level. The shift is from mild agreement to mild disagreement with the item. The keyed alternatives for acceptance of authority are "mildly disagree" and "moderately disagree". The data indicate a shift toward acceptance of authority in attitudes the further through the SMPP the men are questioned.

The last question found to show differences in responses at the various levels of the SMPP concern opinions about the adverse effect of strict Army discipline on young men. Table 17 presents the results.

Table 17: ITEM: Strict Army discipline has a bad influence on most young men.

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	4.00	1.64	605
AFEES	4.37	1.58	1550
RECPTS	4.42	1.57	2013

There is a large shift in attitudes from the recruiting station to the AFEES and a smaller, but similar, change in attitudes between the AFEES

and reception station levels of the SMPP. The keyed alternatives for the acceptance of authority scale are "mildly disagree" and "moderately disagree." The attitude change is toward more extreme disagreement with the statement as the sample is selected farther through the SMPP. The trend in Tables 16 and 17 seems to be in the direction of a greater acceptance of discipline and authority among those men who actually enter the Army.

The other three items on the WYO showed no trend or differences of results from the various locations of the SMPP.

Total Questionnaire Scores

WYO mean scores for the non-repeater sample can be found in Table 18 below. These means indicate no significant differences between levels of the SMPP.

Table 18: WYO MEAN SCORES

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRS	2.74	1.30	558
AFEES	2.66	1.27	1436
RECPTS	2.67	1.25	1851

Table 19 presents the means of the WEPS scores.

Table 19: WEPS SCORE MEANS

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRS	36.62	6.21	668
AFEES	37.33	5.91	778
RECPTS	37.91	7.04	979

There is a large increase in scores from the RECRS level to the AFEES level, and again from the AFEES level to the RECPTS.

Table 20 presents the mean scores on the EP questionnaire.

Table 20: EP MEAN SCORES

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	21.73	4.43	732
AFEES	21.12	4.42	1245
RECPTS	30.41	8.67	1926

RECRTS and AFEES men have similar score means. The largest difference in scores occurs at the RECPTS level in the SMPP, where the mean score increases to 30.41.

The mean scores for the EEQ at the three levels of the SMPP are presented in Table 21. There is an upward shift of scores through the SMPP, with RECRTS people scoring the lowest and the RECPTS people scoring the highest.

Table 21: EEQ SCORE MEANS

<u>Location</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
RECRTS	16.02	5.32	844
AFEES	17.09	5.13	1634
RECPTS	17.35	5.47	2093

Table 22 lists the means of AFQT scores at the AFEES and RECPTS levels of the SMPP. Large differences are evident between the two levels of the SMPP with the RECPTS mean being considerably higher.

Table 22: AFQT PERCENTILE SCORE MEANS

<u>Location*</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>N</u>
AFEES	42.2	22.36	64
RECPTS	57.9	20.72	307

*Only 10 AFQT scores were available at the RECRTS level and are therefore omitted from this table.

Relationships between Tests

Test score correlations were computed for each level of the SMPP. Pearson correlations were calculated on the non-repeater sample for these relationships. Table 23 presents the results for the tests and the AFQT percentile (%) score at the recruiting station level.

Table 23: TEST CORRELATION NON-REPEATER SAMPLE--RECRUITING STATION

<u>Variables</u>	<u>WYO Score</u>	<u>AFQT % Score</u>	<u>EP Score</u>	<u>EEQ Score</u>
WEPS Score	-.10* (612) S=.008	-.02 (11) S=.479	-.02 (455) S=.342	.07 (566) S=.057
WYO Score	1.---	.36 (10) S=.153	.24 (486) S=.001	-.01 (588) S=.369
AFQT % Score		1.---	.04 (11) S=.451	.48 (12) S=.056
EP Score			1.---	-.23 (555) S=.001

*Pearson Correlation

(N)

Level of Significance

As shown in Table 23, the following test correlations displayed relationships beyond the .05 level of significance:

- a. WEPS - WYO (negative)
- b. WYO - EP
- c. EP - EEQ (negative)

Table 24 shows the test correlation results from the AFEES level of the SMPP.

Table 24: TEST CORRELATION, NON-REPEATER SAMPLE--AFEES

<u>Variables</u>	<u>WYO Score</u>	<u>AFQT % Score</u>	<u>EP Score</u>	<u>EEQ Score</u>
WEPS Score	.00* (725) S=.454	-.14 (522) S=.001	.11 (178) S=.067	-.08 (653) S=.024
WYO Score	1.---	.07 (1074) S=.013	.08 (735) S=.013	.02 (1243) S=.221
AFQT % Score		1.---	.110 (825) S=.001	.34 (1303) S=.001
EP Score			1.---	-.19 (873) S=.001

*Pearson Correlation

(N)

Level of Significance

Test correlations demonstrating relationships beyond the .05 level of significance include the following:

- a. WEPS - AFQT % (negative)
- b. WEPS - EEQ (negative)
- c. WYO - AFQT %
- d. WYO - EP
- e. AFQT % - EP
- f. AFQT % - EEQ
- g. EP - EEQ (negative)

Reception Station test relationships are presented in Table 25.

Table 25: TEST CORRELATION, NON-REPEATER SAMPLE--RECEPTION STATION

<u>Variables</u>	<u>WYO Score</u>	<u>AFQT % Score</u>	<u>EP Score</u>	<u>EEQ Score</u>
WEPS Score	-.05* (905) S=.053	-.17 (970) S=.001	0.0 (350) S=.496	-.02 (973) S=.266
WYO Score	1.---	.04 (1914) S=.029	.12 (1847) S=.001	-.02 (1921) S=.198
AFQT % Score		1.---	.23 (1017) S=.001	.25 (2081) S=.001
EP Score			1.---	.68 (1026) S=.001

*Pearson Correlation

(N)

Level of Significance

Table 25 reveals the following test relationships significant beyond the .05 level:

- a. WEPS - AFQT % (negative)
- b. WYO - AFQT %
- c. WYO - EP
- d. AFQT % - EP
- e. AFQT % - EEQ
- f. EP - EEQ

Only the WYO - EP questionnaire scores demonstrate significant relationships in the same direction at all three levels of the SMPP. The EP - EEQ questionnaires are also significantly correlated at all three, however, at the RECRTS and AFEES levels they are negatively related, and at the RECPTS level they are positively related.

REPEATER SAMPLE

The repeater sample consisted of men taking one or more tests at more than one location. This sample is important to this study because it allowed for limited longitudinal analyses between levels of the SMPP and determination of test-retest reliability of each questionnaire.

Test-Retest Reliability

Test-retest correlations (Pearson correlations) were calculated for the WYO scores, WEPS scores, EP scores, and EEQ scores at all SMPP level combinations: RECRTS-AFEES, AFEES-RECPTS, RECRTS-RECPTS. The results are presented in Table 26 below.

Table 26: TEST-RETEST CORRELATIONS, REPEATER SAMPLES

TEST	LOCATIONS		
	Recruiting Station - AFEES	AFEES - Reception Station	Recruiting Station - Reception Station
EP	.87* (24) S=.001	-.47 (130) S=.001	-.15 (5) S=.402
EEQ	.80 (36) S=.001	.91 (139) S=.001	.55 (8) S=.078
WYO	-.10 (33) S=.283	.16 (179) S=.014	-.36 (12) S=.123
WEPS	.60 (18) S=.004	.55 (28) S=.001	**

*Pearson Correlation Coefficient

(N)

Level of Significance

**Only 1 person took this test at both the Recruiting Station and the Reception Station.

The EEQ and WEPS questionnaire demonstrated highly significant test-retest reliabilities at the RECPTS-AFEES and AFEES-RECPTS location combinations.

The WYO questionnaire showed significant reliability only between the AFEES and RECPTS administrations.

The EP shows high test-retest correlations at both the RECPTS-AFEES and AFEES-RECPTS location combinations. However, the correlation at the AFEES-RECPTS combination was in a negative direction (-.47).

Longitudinal Analyses

Longitudinal analyses consisted of locating items whose response distributions differed by six or more percentage points on item alternatives and finding where these response changes occur.

The item distributions for the 24 men taking both administrations of the EP at the RECPTS and AFEES changed in 44 of the 67 items on the questionnaire. Since there were only 24 men in this particular subsample, any shift of 2 respondents on any one alternative changes the distribution more than the criterion for discussion, which is six or more percentage points.

There were 130 men in the repeater subsample who took both administrations of the EP at the AFEES and RECPTS. Item distributions for both locations showed alternative changes of six or more percentage points on 19 of the items. Only five men took the EP at both the RECPTS and RECPTS, too few to provide any worthwhile information regarding response changes.

There were 36 men who took the EEQ at both the RECPTS and the AFEES locations. Of the 36 items on the EEQ, 15 items had distribution changes of six or more percentage points from the first administration at the RECPTS to the second administration at the AFEES. There were 14 men who repeated the EEQ at the AFEES and RECPTS. From this subsample, nine items had item alternative distribution changes of six or more percentage points.

There were eight men who repeated the EEQ between the RECPTS and RECPTS, too few to provide conclusive information.

Thirty-seven men took the WYO at the RECPTS and AFEES. There were alternative changes of six or more percentage point on five of the six

items between these two locations. Two hundred and four men took the WYO at both the AFES and RECPTS. Alternative changes of six or more percentage points were noted on four items.

The WYO was the only questionnaire with more than ten people responding to it at both the RECPTS and the RECPTS (n=13). However, because each respondent is 7.7% of each item's distribution, a shift of only one person changes the distribution by more than our criterion for discussion of six or more percentage points. Even with this sampling limitation, large alternative distribution shifts were noted on three of the six items in the scale.

DISCUSSION

The significance of the data analyses described in the results section was based on the premise that large sample can often demonstrate statistical significance with a minimum of score mean changes between treatment levels, in this case the three stages of the SMPP: RECPTS, AFES, and RECPTS. The criteria used in analyzing these data, therefore, were selected on the premise that mean differences or category differences in distributions of item alternatives would be readily found. Thus, criteria for qualitative significance and presentation of results were the following: 1. Differences in means should be .3 or greater. 2. Differences in distribution categories should be six percentage points or greater.

NON-REPEATER SAMPLE

Using the above criteria, a total of 17 different items were found to be significant among the 109 items examined in the WYO, EP, and EEQ questionnaires. The EP and EEQ scores were developed as predictors of

success at 180 days in the Army. As expected when using present screening techniques, the mean scores on both instruments rose from the RECRTS through the RECPTS level, indicating the success of present Army methods of selecting out those men identified as potentially unsuitable soldiers.

The WYO questionnaire score is descriptive of a respondent's disposition for acceptance of authority. It would be expected that scores would be higher as data are examined through the SMPP. However, score differences showed no changes between the three administrations.

The results of the WEPS questionnaire fit the explanation offered in the test manual.* Since the WEPS was designed to measure an individual's endorsement of bureaucratic organizations, "the WEPS would be expected to correlate positively with an individual's actual or expressed willingness to remain in this type of environment" (p.12). It is to be expected that as an individual proceeds through the SMPP he becomes more involved in the Army organizational structure and would endorse the bureaucratic model the further along he goes. This conclusion stems from considerable evidence in the psychological literature which indicates that once a potential enlistees (RECRTS-level subject) decides to enter the Army, he will attempt to reinforce his decision. This reinforcement can be shown via attitudes and behavior. In this testing situation, the decision is evidence in attitudinal shifts toward acceptance of the bureaucratic structure.

AFQT percentile scores were available only at the AFES and RECPTS. There was, as expected with present screening techniques, a large increase in mean percentile scores between the two locations with the RECPTS score mean being the higher of the two locations.

*Gordon, Leonard, Work Environment Preference Schedule, Manual, New York: Psychological Corporation, 1973, p.12.

Pearson correlation coefficients for intertest relationships at each administration level demonstrated pertinent relationships between the various instruments. In this discussion, it is important to keep in mind the designated purpose of the testing instruments and AFQT:

- a. WYO - Evaluation of one's acceptance of authority
- b. WEPS - Amount of endorsement of bureaucratic organizations
- c. EP - Total score used as a predictor of success in the Army after 180 days
- d. EEQ - Total score used as a predictor of success in the Army after 180 days
- e. AFQT - Total score used as an evaluation of overall ability, skill, and educational level

It is to be expected that at Stage 1 of the SMPP, the RECPTS, few, if any, of the tests would correlate highly in a positive direction due to the varied characteristics and backgrounds of the respondents, as well as lack of any screening process imposed by the Army on the sample. This expectation is supported by the statistics. At Step 2 in the SMPP, the AFEES, there should be more of a common sample since some screening of applicants was performed at the RECPTS. This should result in correlations showing more interrelationships between the tests. This does occur with positive significant correlations between the WYO and AFQT, the WYO and EP, the AFQT and the EP, and the AFQT and the EEQ. At the third level of the SMPP, the RECPTS, more positive relationships are expected due to the more stringent screening procedures imposed at the AFEES. These results were demonstrated with the following positive and significant correlations:

- a. the WYO and the AFQT
- b. the WYO and the EP
- c. the AFQT and the EP
- d. the AFQT and the EEQ
- e. the EP and the EEQ

These results indicate some success with the current Army screening procedures as well as the validity of the tests employed in this study.

REPEATER SAMPLE

The main objective in analyzing the results of the repeater sample was to estimate the test-retest reliability of the instrument. Also, this sample was used in an attempt to find where the best location is in terms of influence upon the respondents which would affect their answers.

Constant, positive correlations result from reliable instruments. Only the WEPS and EEQ demonstrated these characteristics between various testing locations. This implies reliability in a test to measure the same constructs over time. The WYO showed a significantly positive correlation only between the AFEES and RECPTS. The EP demonstrated a high, positive correlation between the RECPTS and AFEES, but a high, negative correlation between the AFEES and RECPTS. Both the WYO and EP, therefore, cannot be considered as reliable measurement instruments on the basis of these results.

Using number of items showing large differences (six or more percentage points) in their response distributions between locations as a criterion to influence responses, there are results presented which indicate that the largest influence occurs between time of administration of the instruments at the RECPTS and time of administration at the AFEES.

Of the repeated test items between the RECRTS and AFEES, 59% (64 of 109 items) met the criterion of changing by six or more percentage points. Between the AFEES and RECPTS, 29% of the items (32 of 109 items) met the criterion of change. It can be said that testing at the RECRTS is least preferred due to the resultant changes in item responses during subsequent test administrations.

APPENDIX A

PARTICIPATING INSTALLATIONS

Regional Recruiting Command

Northeastern

Southeastern

District Recruiting Command*

Newark, New Jersey

Columbia, South Carolina

New York, New York

Jacksonville, Florida

Philadelphia, Pennsylvania

Montgomery, Alabama

Pittsburgh, Pennsylvania

Richmond, Virginia

Armed Forces Examining and Entrance Stations

Newark, New Jersey

Fort Jackson, South Carolina

Fort Hamilton, New York

Jacksonville, Florida

Philadelphia, Pennsylvania

Montgomery, Alabama

Pittsburgh, Pennsylvania

Richmond, Virginia

Reception Station

Fort Dix, New Jersey

Fort Jackson, South Carolina

*Each District Recruiting Command provided ten recruiting stations for on-site testing.

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