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RESEARCH MEMORANDUM

NUMBER 55-5

11 May 1955

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ADB951324

⑨ Research memo.

⑥ ANALYSIS OF OPERATIONAL STATISTICS, DA FORM 67-2: COMPONENT.
RMA-7-03.

⑭ AGO-PRB-Rm-55-5

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ANALYSIS OF OPERATIONAL STATISTICS, DA FORM 67-2: COMPONENT

I. INTRODUCTION

It has been often observed that the rated officer's component seems to be related to efficiency report score. The mean rating of Regular Army (RA) officers exceeded the mean score of non-Regular Army (non-RA) officers at each grade level, and averaged approximately 15 ASR units higher for all grades combined.

The Regular Army consists of only one component; the non-Regular Army comprises three separate components: Organized Reserve Corps (ORC), now designated as the Army Reserve (USAR); National Guard (NG); and Army of the United States (AUS).

In previous studies, component has been dichotomized as either Regular or non-Regular Army. In this study each component--RA, ORC, NG, and AUS--was examined separately to determine whether differences exist in means and dispersion of ratings. Such an analysis should provide general background information which may be helpful in future research studies, and should lead to a better understanding of the officer efficiency reporting system.

II. OBJECTIVE

To compare the efficiency ratings of officers of the RA, ORC, NG, and AUS components by grade.

III. METHOD OF INVESTIGATION

A. SAMPLE

1. All efficiency reports on all Army officers from second lieutenant through colonel who were on active duty during the period 1 June 52 to 31 May 55 were included in this study.

B. VARIABLES

1. Component

Regular Army, Organized Reserve Corps, National Guard, or Army of the United States, as indicated on the scored Form 67-2.

2. Grade

Lieutenant through colonel as indicated on the scored Form 67-2.

3. Efficiency Rating

Army Standard Rating (ASR) on Form 67-2.

C. GENERAL PROCEDURE

1. RMA-7-01 (Trend Analysis of Operational Statistics, DA Form 67-2) contained the necessary statistical information on the RA component for the period 1 June 1952 to 31 May 1953. This project also contained statistical information on the non-RA for the identical year, but the three components of the non-RA were not identified separately.

2. Statistical and Accounting Branch, TAGO, prepared frequency distributions of MG officers' 67-2 scores, by 5-point intervals, for each grade separately for the period 1 June 1952 through 31 May 1953. Similar distributions were also prepared of AUS officers' 67-2 scores.

3. To obtain similar distributions for the ORC component, a tremendous amount of work would have been required. The percentage distribution of officers within each component of the total Army as of 30 November 1952 was:

	<u>Component</u>	<u>Percent</u>
	RA	19.8
Non-RA	ORC	76.3
	MG	3.9
	AUS	less than 0.1

In the interest of economy, statistical data necessary for an analysis of the ORC component (which comprised more than three-fourths of the total officer population and 95 percent of the non-RA group) were obtained by subtracting the MG and AUS component distributions from the distribution of the non-RA group scores. The result provided the distribution of scores for the ORC component.

D. STATISTICAL PROCEDURE

1. The mean, median, and standard deviation for each grade and for all grades combined were computed separately for the MG, AUS, and ORC components.

2. The distribution statistics for the RA and non-RA groups were available from RMA-7-01 (Trend Analysis of Operational Statistics, DA Form 67-2).

IV. RESULTS

A. LIMITATIONS

Certain limitations of the data which may influence the interpretation of the results should be mentioned at this point:

1. The N's of the RA, non-RA and Totals indicated in Tables 1 and 2 are based on a sample of 16 branches, which comprise at least 83 percent of the total Army; the N's of the NG and AUS components include officers of all branches. The N's of the CRC component are derived by subtracting these separate N's.

2. Officer efficiency reports rather than individual officers determine the number of cases in the sample. It is possible that officers of certain components and branches tend to obtain more numerous ratings and therefore are more heavily weighted in the totals.

B. GRADE

Differences have been observed among components which may reflect grade differentials in ratings. Consequently, in the present study, components were studied separately by grade. Table 1 shows mean efficiency rating by grade within each component. The grade differences are quite clear. In the RA component, mean ratings decrease progressively with grade from a mean of 117.7 for colonels to a mean of 102.9 for second lieutenants. A similar pattern occurs in the mean grade ratings of the CRC and NG components. Even the AUS component, in which the number of cases is rather inadequate for suitable analysis, shows the mean ratings of lieutenants to be substantially lower than the other grades of AUS officers.

C. COMPONENT

Table 2, which recapitulates Table 1 in order to more clearly depict component differences, shows that at each grade level the RA component obtains a higher mean efficiency rating than each of the other three components. There is no exception within any grade. The overall difference for all grades combined is approximately 15 ASR units in favor of the RA component. Within grade, the average difference is roughly 11 ASR points higher for the Regular Army.

The primary purpose of this study was to determine whether there were substantial differences in the mean ratings of the three non-Regular Army components. There has been some complaint that the NG component tended to receive lower ratings than officers of other components. Obviously, with regard to officers of the RA component, this is true, but there is no evidence that NG officers receive lower mean ratings than officers of the other non-RA components.

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Table 1
DISTRIBUTION STATISTICS OF FORM 67-2 ASR SCORES BY
GRADE WITHIN COMPONENT

(N = 188279)

Grade	N	M	S.D.	Grade	N	M	S.D.
<u>ORC</u>				<u>Non-RA</u>			
Colonel	808	107.2	18.7	Colonel	889	107.4	18.8
Lt Colonel	6879	105.7	19.0	Lt Colonel	7572	105.8	19.1
Major	17900	105.2	18.4	Major	18802	105.2	18.4
Captain	43860	101.1	19.5	Captain	46235	101.1	19.5
1st Lieutenant	47415	98.7	19.6	1st Lieutenant	50504	98.6	19.6
2d Lieutenant	32845	95.6	19.3	2d Lieutenant	53606	95.5	19.2
TOTAL	149729	99.4	19.7	TOTAL	157388	99.4	19.7
<u>NO</u>				<u>RA</u>			
Colonel	81	109.3	20.2	Colonel	5188	117.7	15.5
Lt Colonel	467	106.9	20.0	Lt Colonel	7580	116.8	15.5
Major	881	106.4	17.9	Major	5000	116.5	15.4
Captain	2516	101.2	19.0	Captain	5364	114.4	16.8
1st Lieutenant	3013	96.9	18.5	1st Lieutenant	5607	110.9	17.4
2d Lieutenant	715	91.3	18.6	2d Lieutenant	1804	107.9	18.5
TOTAL	7473	99.6	19.2	TOTAL	30851	114.5	16.7
<u>AUS</u>				<u>All Components</u>			
Colonel	0			Colonel	6077	116.2	16.5
Lt Colonel	6	105.7	15.4	Lt Colonel	14932	111.4	18.2
Major	21	108.9	19.6	Major	25890	117.6	18.4
Captain	37	105.2	19.2	Captain	51599	108.5	19.7
1st Lieutenant	76	95.1	18.9	1st Lieutenant	56311	99.8	19.7
2d Lieutenant	46	97.9	18.3	2d Lieutenant	55430	94.0	19.5
TOTAL	186	98.8	19.6	TOTAL	188279	101.9	20.0

Table 2
DISTRIBUTION STATISTICS OF FORM 67-2 ABR SCORES BY
COMPONENT WITHIN GRADE

(based on a recapitulation of Table 1)

(N = 188279)

	COMPONENT					
	1 NU	2 AUG	3 CNC	4 Non-RA (1+2+3)	5 RA	6 Total (4+5)
<u>COLONEL</u>						
N	81	0	808	189	5188	6077
M	109.5	-	107.2	107.4	117.7	116.2
S.D.	20.2	-	18.7	18.8	15.5	16.3
Min	113.2	-	111.4	-	-	-
<u>LT COL</u>						
N	467	6	6879	7792	7200	14572
M	106.9	103.7	105.7	105.8	116.8	111.4
S.D.	20.0	13.4	19.0	19.1	15.5	18.2
Min	110.9	109.5	110.0	-	-	-
<u>MAJOR</u>						
N	2721	21	17980	18802	5088	23890
M	106.4	108.9	105.2	105.2	116.3	107.6
S.D.	17.9	19.6	18.4	18.4	15.4	18.4
Min	109.7	113.2	108.6	-	-	-
<u>CAPTAIN</u>						
N	2516	37	45882	46255	5564	51999
M	101.2	105.2	101.1	101.1	114.4	102.5
S.D.	19.0	19.2	19.5	19.5	16.8	19.7
Min	103.6	108.7	103.8	-	-	-

(Table 2--Cont)

	COMPONENT					
	1 NO	2 AUS	3 GSC	4 Non-NA (1+2+3)	5 RA	6 Total (4+5)
	<u>1st LT</u>					
N	3013	76	47415	30504	5807	36311
M	96.9	93.1	98.7	98.6	110.9	99.8
S.D.	18.3	18.9	19.6	19.6	17.4	19.7
Min	98.9	95.0	101.1	-	-	-
	<u>2d LT</u>					
N	715	46	32845	33606	1824	35430
M	91.3	97.9	95.6	95.5	102.9	94.0
S.D.	18.6	18.3	19.3	19.2	15.5	19.3
Min	91.4	97.8	94.2	-	-	-
	<u>TOTAL (ALL GRADES)</u>					
N	7473	186	149729	157588	30851	188259
M	99.6	98.8	99.4	99.4	114.5	101.9
S.D.	19.2	19.6	19.7	19.7	16.7	20.0
Min	101.7	99.5	101.9	-	-	-

The mean ratings of the various non-RA components are very close. The mean ASR is 99.6 for NG officers, 98.8 for AUS officers, and 99.4 for ORC officers. Only fractions of an ASR point separate the three means, and the differences in the standard deviations are also extremely small. When comparisons of the three components are made within grade, the differences between extreme mean ratings are never larger than 6.6 ASR units, and average 4.2 units across all grades. Furthermore, the higher the grade, the smaller is this difference. If the data are viewed as a sample of ratings rendered over a longer period of time, no significant differences are found among components within the grades of captain through colonel. A significant difference (.01 level) is found between NG and ORC first and second lieutenants. The same significance level is found between AUS and ORC first lieutenants, and a .05 significance level between NG and AUS second lieutenants. When the non-RA components are rank-ordered on the basis of mean efficiency rating within grade, no component ranks consistently higher than the others on efficiency. Table 3 shows the results of such rank-ordering.

Table 3

RANK-ORDER OF NON-REGULAR ARMY COMPONENTS ACCORDING TO
MEAN EFFICIENCY RATING WITHIN GRADE

Grade	Rank-Order		
	1	2	3
Colonel	NG	ORC	-
Lieutenant Colonel	NG	ORC	AUS
Major	AUS	NG	ORC
Captain	AUS	NG	ORC
First Lieutenant	ORC	NG	AUS
Second Lieutenant	AUS	ORC	NG
TOTAL	NG	ORC	AUS

To some extent NG officers appear to obtain better ratings in the higher grades and lower ratings in the lower grades. AUS officers rank lowest for all grades combined, but this datum can be misleading since there are no full colonels in the AUS to raise its grand mean. With the exception of first lieutenants and lieutenant colonels, AUS officers maintain a fairly high level of efficiency at each grade level. However, this should not obscure the facts that the ratings of the non-RA components are relatively close and that the slight differences are of no practical importance.

V. CONCLUSIONS AND RESARIES

This study of component differences in ratings has further verified the fact that Regular Army officers obtain higher mean ratings than non-Regular Army officers.

Among the non-RA components--NS, AUS, and GEC--there are only slight differences in mean ratings, and these are of no practical importance.

Grade differences in ratings have been observed again. There is a progressive increase in mean efficiency rating with an increase in grade.

Despite the differences which were observed among grades and between the Regular and non-Regular components, the large overlap of efficiency ratings must not be overlooked.

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