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ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB) CORRELATIONAL ANALYSIS, ASVAB FORM 2 VERSUS ASVAB FORM 5

ROTHE DEVELOPMENT, INC., SAN ANTONIO, TEX.

OCTOBER 1976

AFHRL-TR-76-70

AIR FORCE

HUMAN RESOURCES

LABORATORY

ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB) CORRELATIONAL ANALYSIS, ASVAB FORM 2 VERSUS ASVAB FORM 5

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October 1976
Final Report for Period September 1975 – August 1976

AIR FORCE SYSTEMS COMMAND
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This technical report has been reviewed and is approved.

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Approved for publication.

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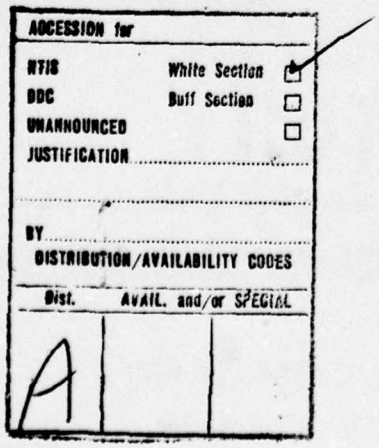

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A total of 2,052 U.S. high school boys and girls, selected from 10 geographical regions, were tested on consecutive half-days using the Armed Services Vocational Aptitude Battery (ASVAB) Form 2 and ASVAB Form 5 vocational aptitude test batteries. Effects of fatigue, training, environmental factors, and proctorial variation were minimized by experimental design. An extensive program of optical scanning, computer analysis, inter-test comparisons, correlation matrix generation, factor analysis and equipercentile calculations was conducted. Three new tests in the larger battery (ASVAB Form 5) were vocationally oriented as opposed to scholastically oriented. Seven tests common to both batteries had reliability coefficients of 0.56 to 0.76. A new factor in vocational testing, tentatively described as "attention to explicit rules," was identified.

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PREFACE

This report was submitted by Rothe Development, Incorporated, San Antonio, Texas under contract F41609-76-C-0006, work unit 77191013, and executed by St. Mary's University Research Center, San Antonio. Mr. W. E. Rothe was project manager. Dr. John Fletcher was principal investigator and project director. Dr. Tom Mote directed the computer analysis program, assisted by Mr. Neil Kammer and personnel of the University Computing Center (Director: Mr. Terry Vetters). The work was accomplished between September 1975 and May 1976.

The author expresses thanks to personnel of the Personnel Research Division, Air Force Human Resources Laboratory, Lackland AFB, Texas, and Armed Forces Vocational Testing Group, Randolph AFB, Texas, for providing technical information and logistical assistance, and for making available the test booklets for use in schools. Grateful recognition is extended to members and faculty of St. Mary's University Graduate School and the 28 public and private high schools (listed in Appendix C) for their professional participation in the nationwide testing program. The national sampling plan was executed by Dr. James Ritter. University Research Center activities were directed and co-ordinated by Dr. George A. Benz.

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Armed Services Vocational Aptitude Battery (ASVAB) Correlational Analysis, ASVAB Form 2 Versus ASVAB Form 5

I. INTRODUCTION

The selection of an appropriate test battery is based on its content and applicability to the vocational trainee population. This report describes the testing of a national sample of U.S. high school students with (a) an established version of Armed Services Vocational Aptitude Battery (ASVAB), and (b) a new, enlarged version of the same test battery.

The purpose of the study was to generate correlation matrices and conversion tables equating components of the old form of the test with scales and components in the new version. The purpose of this report is to describe the research methodology and findings, and to compare and contrast the two test measures. Additionally, correlation and factor analyses were executed which showed four component factors. These are described and used to identify the vocational aptitude contents of the two tests.

II. METHOD

Two paper-and-pencil vocational aptitude tests were presented on consecutive half-days to a sample of U.S. high school students in grades 10 through 12 using a counterbalanced plan, and identical test administration conditions in each school.

The first test battery, designated ASVAB Form 2, consists of 5 practice and 300 test questions grouped into 9 subtests. Form 2 has been in nationwide use in school years 1973-74, 1974-75, and 1975-76 and has been completed by over 3.6 million students. The second test battery, designated ASVAB Form 5, consists of 5 practice and 295 test questions grouped into 12 subtests. Seven subtests of slightly different size and duration are common to Forms 2 and 5. These range from Word Knowledge to Space Perception, and from Mechanical Comprehension to Automotive, Electronics and Shop Information.

Table 1 and Appendix D describe the administration, contents, composites, scoring and types of questions in both vocational aptitude tests used (ASVAB 2; ASVAB 5). Bayroff and Fuchs (1970) describe the development of ASVAB 1 from earlier military tests used in the USA. General and High School Counselor's Manuals (U.S. Department of Defense, 1972; 1973; 1974) give full details of the contents and applications of ASVAB 2. Wilfong and Armstrong (1974) give statistical tables for national, regional and grade scores achieved in high schools, using ASVAB 2.

High School Sample

Figure 1 shows the nationwide distribution of participating high schools and students.

Three hundred forty-three public and private high schools (1.25% of U.S. total) were invited to participate in vocational testing of their students. Twenty-eight schools (26 public and 2 private; 0.10% of U.S. total) wished to participate and were able to schedule Form 2 and Form 5 testing on successive days in the period from November, 1975 to March, 1976. Three thousand seventy students (6.00% of enrollment) voluntarily participated, and two thousand fifty-two (4.01% of enrollment) completed both Form 2 and Form 5 tests (907 in sequence Form 2, then 5; 1,145 in sequence Form 5, then 2). The nationwide distribution of schools and students included all four Federal planning regions as used by Government departments for statistical reporting, and all nine geographical areas, plus the Washington, D.C. Standard Metropolitan Statistical Area (SMSA), making a total of 10 regions. Testing took place in 21 urban, four suburban and three rural schools in 13 single county and multiple county standard metropolitan statistical areas as defined by U.S.

TABLE 1

ADMINISTRATION AND CONTENTS OF VOCATIONAL TESTS

(A) ADMINISTRATION

Abbreviated Name	ASVAB 2	ASVAB 5
Total Time (minutes)	142	165
Instructions & Administration	30	30
Aggregate Testing Time	112	135
Number of Sections	9	12
Number of Questions	305	300
Practice Questions	5	5
Test Questions	300	295
Test Booklet (8 X 10½ in. pages)		
Columns Per Page	1-2	1-2
Test Section Pages	54	57
Optical Scanning Answer Sheets (sides)	3	3
Number of Schools (students) tested	28(2052)	28(2052)
Testing Period (consecutive half days)	November 1975-March 1976	

(B) CONTENTS (QUESTIONS; (MINUTES))

Sub-test and Abbreviation	ASVAB 2	ASVAB 5
Coding Speed (CS)	100(7)	---
General Information (GI)	---	15(7)
Numerical Operations (NO)	---	50(3)
Attention to Detail (AD)	---	30(5)
Word Knowledge (WK)	25(10)	30(10)
Mathematics Knowledge (MK)	---	20(20)
Arithmetic Reasoning (AR)	25(25)	20(20)
Tool Knowledge (TK)	25(10)	---
Space Perception (SP)	25(15)	20(12)
Mechanical Comprehension (MC)	25(15)	20(15)
General Science (GS)	---	20(10)
Shop Information (SI)	25(10)	20(3)
Automotive Information (AI)	25(10)	20(10)
Electronics Information (EI)	25(10)	30(15)

(C) COMPOSITES

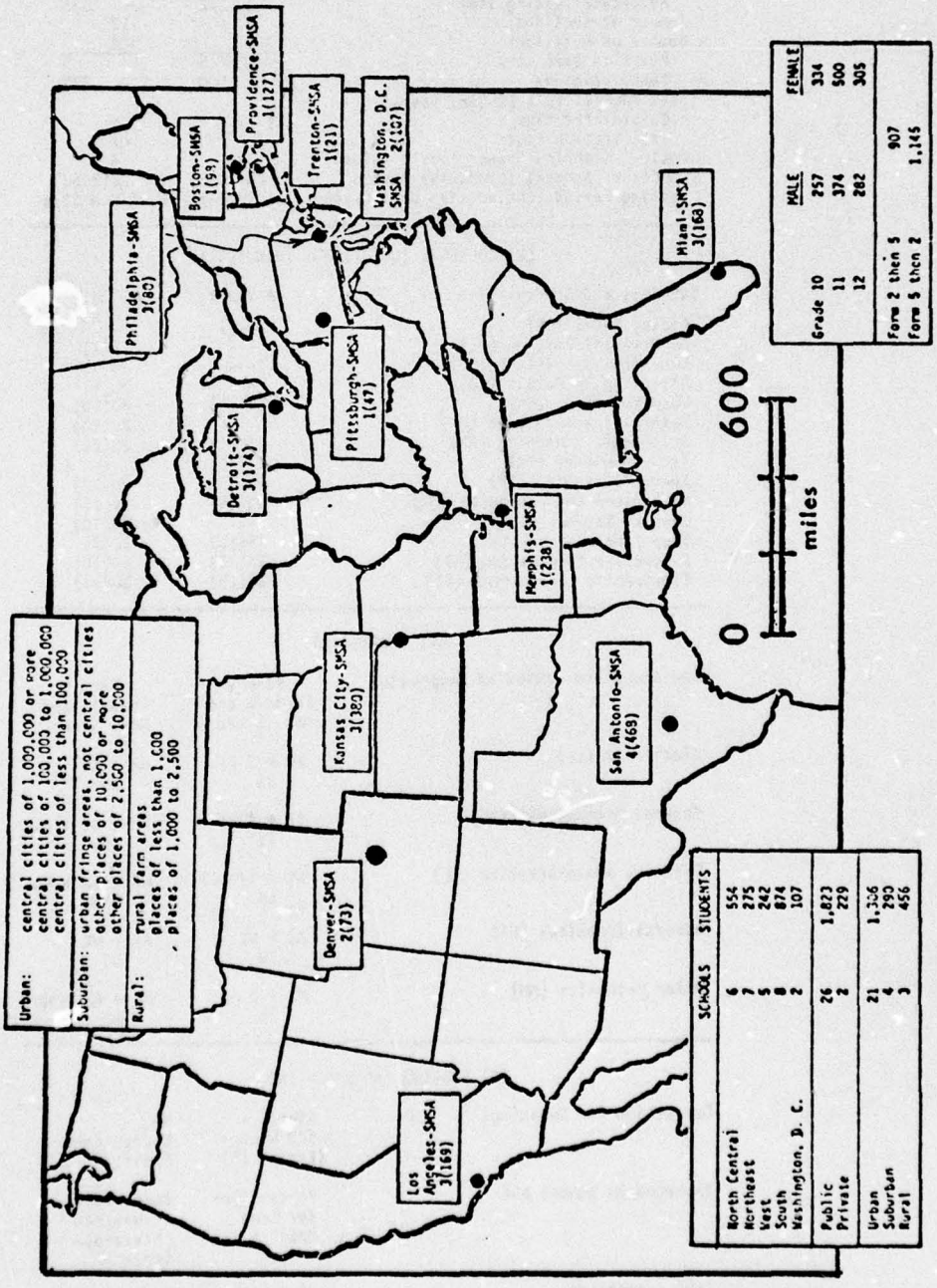
Name and Abbreviation of Composite	Form 2 Formula and Max. Score	Form 5 Formula and Max. Score
Electronic (EL)	MC + 2 EI 75	AR + EI 50
General Mechanical (GMC)	SP + 2 SI 75	SP + SI + AR 60
Clerical Administrative (CL)	WK + 1/3 CS 58	WK + AD + NO 110
General Technical (GT)	AR + WK 50	AR + WK 50
Motor Mechanics (MM)	MC + 2 AI 75	MC + AI + MK 60

(D) SCORING AND REPORTING

Correction for Guessing:	Rights - 1/3 Wrongs (Except CS)	No Corrections Applied
Reported to School as:	Percentiles for Same Grade & Sex	Percentages of Maximum Attainable Score
Equipercentiles	(i) Each Grade and Sex reported separately. (ii) Pooled (n = 2052)	

Figure 1

Map showing nationwide distribution
of participating high schools
and grade 10-12 students



Bureau of Census (1970) and U.S. Department of Commerce (1975). Large, medium-sized and small public (26) and private (2) schools took part, with enrollments in the range of 85 to 4,472 (mean = 1,828; 1973 national average - 742). Approximately equal numbers of grade 10, 11 and 12 males and females were tested, as shown in the small insert on Figure 1. Test answer sheets and records were handled confidentially according to the Privacy Act (PL 93-579).

The school/student sample is a geographically stratified selection of schools interested in vocational testing, in numbers approximately proportional to the national mixture of public versus private, and urban versus suburban versus rural schools. It is not regarded as a random representation because the 2,052 students tested were volunteers, and because neither they nor their schools represented all strata of the nationwide high school population. The national distribution is given by Gertler (1974), Gertler and Barker (1971, 1973). Descriptions of schools and statistics of enrollment were obtained from the national directory compiled by the U.S. Department of Health, Education and Welfare, (1974) and the roster of schools participating in ASVAB testing. National, Federal planning region, and geographical area statistics on high school student subpopulations were from Grant and Lind (1973), and U.S. Department of Commerce (1975).

Consecutive Half-day Testing

Test administration conditions were identical within each school for the presentation of Form 2 and Form 5 on two consecutive days. For reasons of maximum comparability (Flanagan, 1951, pp. 752-3) tests were scheduled at the same time and in the same rooms on either two consecutive mornings or two consecutive afternoons. Approximately 1,000 students were unable to complete both tests on consecutive days, and were excluded from data analysis. Matched pairs of optical scan answer sheets for Form 2 and Form 5 were obtained from the residual 2,052 students.

Test sessions were conducted by trained university faculty or education/psychology graduates and trained military testers. Proctors were members of the school faculty, counselling faculty or graduate students in education or psychology. Many had prior experience as test administrators or researchers. Adherence to ASVAB test administration guidelines and instructions was maintained. These call for disclosure of individual subtests in Form 5 only as soon as all candidates have completed the section.

III. RESULTS

Descriptive Scoring Statistics

Table 2 presents the means and standard deviations for each subtest and composite scores for both ASVAB forms by sex and grade level.

Visual inspection of Table 2 shows that sub group mean scores were higher for grade 11 than for grades 10 and 12 in both sexes and in all tests. Females scored better than or equal to males in Coding Speed (CS) and Attention to Detail (AD). Males scored substantially better than females in Tool Knowledge (TK), Mechanical Comprehension (MC), Shop Information (SI), Automotive Information (AI) and Electronics Information (EI). In Numerical Operations (NO), grade 10 females outperformed grade 10 males. Sixty-three to 66% of maximal possible scores were obtained by grade 11 males in Numerical Operations (NO), Mathematics Knowledge (MK) and General Information (GI), whereas only 47-50% of maximum was achieved in Coding Speed (CS) and Automotive Information (AI-Form 5).

Form 2 Versus Form 5 Correlation Analysis

Pearson product-moment correlations were computed for each subsample and the total sample. Seven 21 x 21 matrices were computed. Each matrix contained data for nine tests from Form 2 and 12 tests from Form 5. One correlation matrix for the total sample population (N = 2,052) is given in Table 3.

In the total sample, results show a wide range of correlations, with two subtests (Word Knowledge, WK; Arithmetic Reasoning, AR) showing similarity between the two forms, and test scores for letter-number manipulation (CS, AD, NO) unrelated to test scores for job and technical knowledge (KT, SI, AI). The five highest cross-correlations were between the two WK subtests (.760); the two AR subtests (.725); MK, Form 5 versus AR, Form 2 (.705); MC versus Electrical Information (EI), Form 5 (.704); and TK versus SI, Form 2 (.701). The lowest cross-correlations were CS versus TK, Form 2 (.010); AD, Form 5 versus SI, Form 2 (.035); AD, Form 5 versus AI, Form 2 (.052); AD versus AI, Form 5 (.055); and NO, Form 5 versus TK, Form 2 (.065).

Sex differences were seen in different grade level subgroups between SI and TK subtests, Form 2; CS and TK subtests, Form 2: EI and MC subtests, Form 5 and AI, Form 2 and AD, Form 5. Male performance was better on SI, TK, AI, Form 2; EK and MC on Form 5. Females exceeded males on CS, Form 2, and AD, Form 5.

Comparisons among the correlation matrices showed considerable variation by grade within such correlation as NO, Form 5 versus TK, Form 2.

TABLE 2

DESCRIPTIVE SCORING STATISTICS : MEANS & STANDARD DEVIATIONS

	GRADE 10 MALES (N=257)		GRADE 10 FEMALES (N=334)		GRADE 11 MALES (N=374)		GRADE 11 FEMALES (N=500)		GRADE 12 MALES (N=281)		GRADE 12 FEMALES (N=306)		GRADE 10-12 BOTH SEXES (N=2052)	
Form 2 Tests	MEAN	S.D.	MEAN	S.D	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.	MEAN	S.D.
AR	10.32	6.065	8.87	5.286	13.19	5.896	10.87	5.420	12.39	5.898	9.84	5.484	10.95	5.824
EI	10.56	5.314	6.70	4.015	12.99	5.040	7.09	4.406	12.87	5.876	6.47	4.240	9.16	5.593
SP	13.43	6.257	11.75	5.296	15.36	5.498	13.19	5.783	14.37	5.960	12.45	5.354	13.43	5.804
AI	11.35	5.010	7.60	3.802	13.29	4.816	8.30	3.765	12.91	4.560	7.76	4.207	10.03	4.952
MC	11.33	5.321	8.16	3.891	13.80	4.657	9.71	4.265	12.83	5.259	9.14	4.351	10.75	5.007
SI	11.95	4.823	6.69	3.858	13.63	5.082	8.04	3.929	13.34	5.029	7.24	3.971	9.94	5.279
WK	11.04	5.180	10.31	5.011	13.50	4.560	12.19	5.196	12.96	4.865	12.01	5.001	12.06	5.151
CS	39.44	13.092	45.36	13.283	47.12	12.960	51.64	12.959	44.92	13.394	50.45	12.848	47.17	13.637
TK	12.24	5.013	5.48	3.542	14.11	5.539	6.62	4.452	13.53	5.469	5.77	4.003	9.32	5.986
Form 2 Composites														
EL	32.46	14.458	20.56	9.908	39.79	13.493	23.90	11.326	38.57	15.640	22.09	11.012	29.06	14.781
GMC	37.32	13.741	25.13	10.595	42.62	13.146	29.27	11.432	41.05	14.090	26.93	11.572	33.30	14.119
CL	24.21	7.924	25.42	7.752	29.20	7.250	29.42	7.670	27.91	7.700	28.87	7.617	27.79	7.876
GT	21.35	10.122	19.18	9.251	26.70	9.783	23.06	9.266	25.35	9.516	21.85	9.180	23.01	9.811
MM	34.04	13.615	23.37	9.522	40.36	12.613	26.31	9.734	38.65	12.899	24.66	10.709	30.80	13.261
Form 5 Tests														
AR	10.05	4.023	8.98	3.159	12.29	4.047	10.37	3.597	11.57	4.441	9.87	3.552	10.54	3.947
EI	14.45	5.698	11.94	3.543	17.60	6.037	12.90	4.119	16.39	6.621	11.90	3.775	14.12	5.460
SP	10.30	4.216	9.16	3.335	11.61	4.134	10.10	3.735	10.96	4.396	9.61	3.672	10.29	3.985
AI	8.12	4.414	5.46	2.660	9.87	4.880	6.13	2.687	8.97	4.978	5.50	2.614	7.25	4.140
MC	9.19	4.264	6.33	2.828	10.68	4.477	7.06	3.170	9.40	4.641	6.32	2.783	8.08	4.077
SI	10.35	4.694	7.36	3.167	12.11	4.636	8.63	3.336	11.00	5.022	7.66	3.317	9.45	4.381
WK	14.95	6.325	13.41	5.694	18.43	6.278	16.55	6.213	17.89	6.597	15.72	6.227	16.24	6.437
AD	13.04	3.935	14.19	4.226	15.94	4.961	16.02	4.732	14.05	4.674	14.81	4.074	14.88	4.622
NO	24.93	10.647	26.97	10.268	33.14	10.527	33.08	10.870	30.44	10.740	29.89	9.741	30.24	10.912
MK	10.91	4.729	10.27	4.334	12.92	4.956	11.05	4.717	11.99	4.930	10.94	4.607	11.58	4.799
GS	9.09	4.219	7.72	3.455	10.98	4.628	9.14	3.642	9.69	4.456	8.17	3.433	9.17	4.114
GI	8.55	2.766	6.76	1.982	9.58	2,473	7.40	2.024	9.17	2.514	6.99	2.287	8.02	2.554
Form 5 Composites														
EL	24.50	8.607	20.92	5.524	29.89	8.873	23.27	6.611	27.96	9.574	21.77	6.144	24.67	8.240
GMC	30.70	10.400	25.49	6.894	36.02	9.957	29.09	8.161	33.53	10.997	27.14	8.297	30.29	9.768
CL	52.92	16.372	56.57	15.196	67.50	16.978	65.04	17.138	62.39	17.202	60.41	14.860	61.36	17.226
GT	25.00	9.340	22.39	7.871	30.71	9.335	26.92	8.814	29.46	9.846	25.59	8.976	26.78	9.416
MM	28.21	11.122	22.05	7.151	33.47	11.422	25.15	8.183	30.36	12.096	22.77	7,865	26,90	10.488

Factor Analysis

Factor analysis of the correlation matrix presented in Table 3 was performed using a principal axis and Varimax solution (Thurstone, 1950; Kaiser, 1958). The final analysis yielded four factors which accounted for 68.9% of the variance. Tentative solutions, yielding five and six factors, accounted for 72.6% and 75.5% of the variance respectively, but did not lead to improvement in the factor structure.

Selection of the Varimax rotation method (Harman, 1960, p. 301) has the effect of simplifying columns within the factor loading matrix, thus emphasizing structural simplicity.

Table 4 shows the results of the final analysis. It lists factor loadings for all 21 subtests in the upper half. Eight entries in the range 0.40 to 0.53 are listed in the lower half. The seven subtests which are common to ASVAB Form 2 and ASVAB Form 5 (AR, EI, SP, AI, MC, SI, WK) are clearly paired in the factor structure. The factorial relationships of the other seven subtests (CS & TK in Form 2; AD, NO, MK, SK, & GI in Form 5) appear to be reasonably consistent. The four defined factors are:

Factor 1: Clearly associated with subtests measuring non-scholastic job or hobby related knowledge. High factor scores may be predictive of success in skill training and/or technical vocation. Tentatively identified as "technical information."

Factor 2: Strongly associated with scholastically oriented subtests. Incapable of being resolved into classical independent verbal and quatitative components, even in 5-factor, 6-factor and 7-factor solutions. Identified as "scholastic information."

Factor 3: Contains loadings of 0.40 or more on only three subtests, two of which are speeded tests. All three subtests require careful "attention to explicit rules."

Factor 4: Clearly associated with "spatial perception" capability, and should be identified with that title. Includes ability to interpret diagrams not labeled with words.

Equipercentile Tables

Percentiles are the sets of values which divide a total frequency distribution into 100 equal parts. Equipercentiles are sets of values for two or more frequency distributions which are either equivalent or have been measured using different metrics on the same sample (Flanagan, 1951, pp. 752-6; Lindsay and Prichard, 1971).

TABLE 4

RESULTS OF FACTOR ANALYSIS: FACTOR LOSDINGS
FOR 21 TESTS

FACTOR 1 (9 Sub-tests) Technical Information and Related Knowledge	FACTOR 2 (6 Sub-tests) Scholastic Information: Involves both Verbal and Quantitative Knowledge	FACTOR 3 (3 Sub-tests) Attention to Explicit Rules: Includes Ability to Work at Speed	FACTOR 4 (3 Sub-tests) Spatial perception: Includes Ability to Interpret Vectorial Diagrams
TK2 0.818	WK5 0.793	AD5 0.826	SP2 0.791
SI2 0.785	WK2 0.763	NO5 0.757	SP5 0.721
AI5 0.768	GS5 0.681	CS2 0.743	MC2 0.540
AI2 0.762	MK5 0.664		
SI5 0.735	AR2 0.620		
EI2 0.712	AR5 0.614		
EI5 0.647			
MC5 0.629			
GI5 0.530			
Other loadings in range 0.40 to 0.53			
MC2 0.530	EI5 0.491	None	AR2 0.482
GS5 0.447	GI5 0.485		MK5 0.435
	MC5 0.433		AR5 0416

Note: All 9 Form 2 subtests and all 2 Form 5 subtests appear only once in upper half of table.

The equipercentile computer program for equating ASVAB Form 2 and ASVAB Form 5 establishes a relationship from raw score on Form 2 to raw score on Form 5 through the medium of a common percentile scale. The fitting of the curve to the observed scores, which is usually done by hand and eye, was accomplished by a least-squares regression procedure (Lindsay and Prichard, 1971).

Equipercentile tables were produced for all seven subtests and for all five composites. The former yield 49 equipercentile tables, which are contained in Appendix A. The latter yield 35 tables, contained in Appendix B. School counsellors, vocational specialists and human resource researchers can use them to determine the Form 5 raw score and percentile equivalents to any given Form 2 raw score or percentile. Thus, scores for Form 5 may be equated to scores on Form 2.

IV. INTERPRETATION AND DISCUSSION

ASVAB Forms 1, 2 and 5

Approximately 3.646 million students have taken part in the Armed Forces high school testing program during school years 1973-76, using ASVAB Form 2. Approximately 2.549 million students, in school years 1968-73, were administered ASVAB Form 1. A cross-comparison of ASVAB Form 1 and ASVAB Form 2 results was made (Wilfong, Armstrong, and Huckell; 1974) for 873,628 and 771,031 students, respectively. Comparison of Form 2 results for 2,052 students in the present study and 771,031 students in school year 1973-74 shows comparable or slightly lower group average scores for individual tests in the smaller group, similar standard deviations for every test, identical patterns of male-female score differences, and grade 11 superiority over grade 12 scores in 5 of 18 subsamples (N = 771,031) compared with 18 of 18 subsamples (N = 2,052). Accordingly, test scores on Form 2 were reported to students and their counsellors as raw scores and percentiles computed for their grade and sex. Form 5 test scores were reported as raw scores and percent of maximum test score.

Inter-battery comparison between Form 1, Form 2 and Form 5 shows that Forms 1 and 2 differed in their difficulty level, but not in their test structure or content, while Forms 2 and 5 differed in structure and content. In constructing ASVAB Form 2, tests AR, EI, SP, AI and MC were reduced in difficulty, CS was unchanged and WK was made more difficult (Wilfong, Armstrong, and Huckell, 1974). In developing ASVAB Form 5 from ASVAB Form 2, tests CS and TK were eliminated, tests AR, SP, MC, SI and AI were reduced in length, tests WK and EI were increased in length, and five new tests were added - GI, NO, AD, MD and SK.

Reliability

Reliability is defined as the property of a test to produce consistent scores from one administration to another (Thorndike, 1971, p. 357). The lack of consistency in a set of measurements made repeatedly on a sample may be expressed as intra-individual variance, and the standard error of measurement is its positive square root. When two equivalent measurements are obtained for each individual, a correlation coefficient between the data sets provides one form of reliability coefficient.

Table 3 presents inter-test correlations for ASVAB Forms 2 and 5. It shows, in particular, that the Form 2 and Form 5 variants of WK and AR have relatively high correlation coefficients. All correlational values for the total sample are in the range 0.56-0.76.

TABLE 3

MATRIX OF INTER-TEST CORRELATIONS (N = 2052)

	FORM 2									FORM 5											
Form 2	AR	EI	SP	AI	PC	SI	WK	CS	TK	AR	EI	SP	AI	PC	SI	WK	AD	NO	MK	CS	GI	Form 2
AR	1.000	0.460	0.564	0.365	0.594	0.389	0.596	0.365	0.317	0.725	0.478	0.467	0.378	0.502	0.408	0.635	0.184	0.433	0.706	0.505	0.445	AR
EI	0.460	1.000	0.461	0.622	0.609	0.647	0.419	0.115	0.613	0.438	0.619	0.399	0.538	0.578	0.551	0.456	0.071	0.177	0.405	0.494	0.498	EI
SP	0.564	0.461	1.000	0.380	0.633	0.442	0.437	0.284	0.422	0.518	0.445	0.677	0.350	0.523	0.387	0.477	0.147	0.250	0.535	0.446	0.327	SP
AI	0.365	0.622	0.380	1.000	0.531	0.647	0.301	0.090	0.623	0.351	0.482	0.310	0.564	0.489	0.516	0.318	0.092	0.121	0.269	0.374	0.431	AI
PC	0.594	0.609	0.633	0.531	1.000	0.559	0.535	0.233	0.538	0.548	0.583	0.547	0.494	0.612	0.514	0.561	0.141	0.262	0.551	0.533	0.474	PC
SI	0.389	0.647	0.442	0.647	0.559	1.000	0.377	0.061	0.701	0.364	0.545	0.378	0.571	0.559	0.574	0.383	0.065	0.117	0.307	0.409	0.418	SI
WK	0.596	0.419	0.437	0.301	0.533	0.377	1.000	0.316	0.253	0.532	0.452	0.391	0.356	0.453	0.428	0.760	0.137	0.364	0.571	0.550	0.459	WK
CS	0.365	0.115	0.284	0.090	0.233	0.061	0.316	1.000	0.010	0.343	0.221	0.253	0.065	0.148	0.161	0.352	0.417	0.579	0.417	0.221	0.178	CS
TK	0.317	0.613	0.422	0.625	0.538	0.701	0.253	0.010	1.000	0.373	0.516	0.351	0.566	0.547	0.564	0.289	0.064	0.065	0.240	0.377	0.449	TK
Form 5																						Form 5
AR	0.725	0.438	0.518	0.351	0.548	0.384	0.531	0.343	0.333	1.000	0.522	0.508	0.399	0.539	0.446	0.623	0.224	0.434	0.704	0.510	0.470	AR
EI	0.478	0.619	0.445	0.482	0.588	0.545	0.492	0.221	0.518	0.522	1.000	0.453	0.616	0.724	0.661	0.561	0.147	0.279	0.487	0.639	0.527	EI
SP	0.467	0.399	0.677	0.310	0.547	0.378	0.381	0.263	0.351	0.508	0.458	1.000	0.339	0.523	0.383	0.476	0.202	0.315	0.525	0.430	0.337	SP
AI	0.378	0.539	0.350	0.564	0.494	0.571	0.356	0.085	0.566	0.399	0.615	0.339	1.000	0.617	0.691	0.371	0.095	0.161	0.324	0.555	0.465	AI
PC	0.502	0.578	0.523	0.489	0.642	0.559	0.453	0.148	0.547	0.539	0.724	0.525	0.617	1.000	0.639	0.514	0.116	0.224	0.459	0.625	0.512	PC
SI	0.408	0.561	0.387	0.516	0.514	0.584	0.428	0.161	0.564	0.446	0.661	0.383	0.691	0.639	1.000	0.461	0.107	0.256	0.402	0.558	0.502	SI
WK	0.635	0.456	0.477	0.318	0.561	0.383	0.760	0.352	0.289	0.623	0.561	0.456	0.371	0.514	0.461	1.000	0.164	0.412	0.636	0.633	0.517	WK
AD	0.184	0.071	0.147	0.092	0.141	0.065	0.137	0.417	0.064	0.224	0.147	0.202	0.095	0.116	0.107	0.164	1.000	0.455	0.224	0.110	0.136	AD
NO	0.433	0.177	0.250	0.121	0.262	0.117	0.364	0.579	0.065	0.434	0.279	0.315	0.151	0.224	0.253	0.412	0.455	1.000	0.502	0.270	0.276	NO
MK	0.703	0.405	0.535	0.209	0.531	0.307	0.571	0.417	0.240	0.704	0.487	0.525	0.324	0.459	0.402	0.638	0.224	0.502	1.000	0.564	0.430	MK
CS	0.509	0.494	0.456	0.374	0.533	0.405	0.550	0.221	0.377	0.530	0.639	0.430	0.555	0.625	0.595	0.633	0.118	0.270	0.564	1.000	0.488	CS
GI	0.445	0.495	0.327	0.431	0.474	0.479	0.459	0.178	0.443	0.470	0.527	0.337	0.465	0.512	0.502	0.517	0.136	0.276	0.430	0.488	1.000	GI

Validity

The validity of a test or of a test battery is the property which makes it useful for a specified purpose. There is no single validity for a test or test battery but rather a validity for each application. The job-related and hobby-related nature of TK Form 2, SI Forms 2 and 5, AI Forms 2 and 5, EI Forms 2 and 5, MC Form 5 and GI Form 5 in Factor 1, and their clear separation in the factor analysis from Factors 2-4 (scholastic information, attention to explicit rules, and spatial perception) can be interpreted as evidence that both ASVAB Form 2 and Form 5 are valid instruments for testing for vocational technical information in high school students. Factors 2-4 are possible predictors of more general capabilities: (1) ability to read, understand and respond to questions, (2) ability to work according to directions, and (3) ability to perceive and respond to visual displays and questions, e.g., mechanical drawings.

The uses of ASVAB Form 1 and 2 for predicting secondary school success, technical school success, high school vocational-technical course success and civilian vocational-technical school completion have been examined and assessed by Harris and Huckell (1974), Vitola, Mullins, and Croll (1973), Bower, Lewis, and Krockover (1975), and Jensen and Valentine (1976). There is good evidence of correlation between ASVAB scores and suitability for vocational technical training, although much variation exists between technical specialties and between individual students. Further work is required to establish whether relationships exist between test scores and long-term job success.

V. CONCLUSIONS

Suitably designed vocational aptitude tests appear, from these results, to clearly distinguish non-scholastic, technical knowledge from scholastic information in high school boys and girls. By testing 2,052 high school students selected from all regions of the continental U.S. and from small, medium and large public and private schools, a wide range of test scores was obtained on a nine-test and on a twelve-test battery. By arranging for standarized test administration and instructions, with all students present on two consecutive half-days, and by using a counterbalanced sequencing plan, the possible effects of fatigue or training, and of unwanted environmental effects were minimized. An extensive program of optical scanning and computer analysis of scores led to inter-test comparisons, correlation and factor analyses, and a set of equipercentile tables equating the common tests in both batteries.

The twelve-subtest battery contains four new subtests, three of which are found to be vocationally oriented. Seven subtests common to both batteries produced scores with reliability coefficients in the range of 0.56-0.76. A new factor -- tentatively identified as "attention to explicit rules" -- had the highest single factor loading of 21 tests. No evidence was found that this factor had been clearly identified by earlier workers, although "carefulness" and "perceptual speed" were second-order or third-order factors detected during the testing of World War II aviation cadets (Cronbach, 1960).

Content analysis suggests that Form 5 of ASVAB is an effective instrument for testing technical ability, academic ability, spatial perception and attention to explicit rules in high school males and females. The new battery covers a wider topical range than Form 2 of ASVAB by adding General Science, Mathematics Knowledge, Numerical Operations and General Information.

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APPENDIX A:

Equipercentile Conversion Tables for Subtests
AR, EI, SP, AI, MC, SI And WK

Table A1. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	98.
23.	19.	97.
22.	18.	96.
21.	18.	94.
20.	17.	92.
19.	16.	91.
18.	16.	89.
17.	15.	85.
16.	14.	81.
15.	13.	79.
14.	13.	76.
13.	12.	71.
12.	11.	62.
11.	11.	55.
10.	10.	51.
9.	9.	42.
8.	8.	33.
7.	8.	30.
6.	7.	27.
5.	6.	20.
4.	6.	14.
3.	5.	11.
2.	4.	8.
1.	4.	6.
0.	3.	3.

Table A2. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	19.	99.
24.	19.	99.
23.	18.	99.
22.	17.	99.
21.	17.	98.
20.	16.	98.
19.	15.	98.
18.	15.	96.
17.	14.	93.
16.	13.	89.
15.	13.	86.
14.	12.	84.
13.	11.	78.
12.	11.	71.
11.	10.	67.
10.	10.	62.
9.	9.	53.
8.	8.	44.
7.	8.	39.
6.	7.	33.
5.	6.	24.
4.	6.	17.
3.	5.	14.
2.	4.	10.
1.	4.	5.
0.	3.	2.

Table A3. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25	20	99
24	20	97
23	19	96
22	18	95
21	18	90
20	17	84
19	16	81
18	16	77
17	15	72
16	14	66
15	14	61
14	13	56
13	12	48
12	11	41
11	11	35
10	10	32
9	9	26
8	9	19
7	8	15
6	7	13
5	7	9
4	6	5
3	5	4
2	5	4
1	4	2
0	3	1

Table A4. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	19.	99.
22.	18.	98.
21.	18.	96.
20.	17.	94.
19.	16.	93.
18.	15.	90.
17.	15.	85.
16.	14.	80.
15.	13.	77.
14.	13.	73.
13.	12.	65.
12.	11.	58.
11.	11.	53.
10.	10.	48.
9.	9.	39.
8.	8.	30.
7.	8.	25.
6.	7.	21.
5.	6.	15.
4.	6.	9.
3.	5.	6.
2.	4.	5.
1.	3.	3.
0.	3.	1.

Table A5. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	96.
23.	20.	95.
22.	19.	93.
21.	18.	90.
20.	17.	87.
19.	17.	85.
18.	16.	82.
17.	15.	78.
16.	14.	73.
15.	14.	70.
14.	13.	66.
13.	12.	58.
12.	11.	48.
11.	11.	42.
10.	10.	36.
9.	9.	28.
8.	8.	21.
7.	8.	18.
6.	7.	14.
5.	6.	9.
4.	5.	7.
3.	5.	6.
2.	4.	4.
1.	3.	2.
0.	2.	1.

Table A6. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25	20	99
24	20	99
23	19	99
22	18	98
21	18	96
20	17	94
19	16	93
18	15	92
17	15	89
16	14	86
15	13	83
14	13	80
13	12	74
12	11	66
11	11	62
10	10	57
9	9	47
8	9	37
7	8	30
6	7	24
5	7	17
4	6	13
3	5	10
2	4	8
1	4	5
0	3	2

Table A7. ARITHMETIC REASONING: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25.	20.	99.
24.	20.	98.
23.	19.	98.
22.	18.	97.
21.	18.	94.
20.	17.	92.
19.	16.	90.
18.	16.	88.
17.	15.	83.
16.	14.	79.
15.	13.	76.
14.	13.	72.
13.	12.	65.
12.	11.	57.
11.	11.	52.
10.	10.	47.
9.	9.	39.
8.	8.	30.
7.	8.	26.
6.	7.	22.
5.	6.	15.
4.	6.	10.
3.	5.	8.
2.	4.	6.
1.	4.	4.
0.	3.	2.

Table A8. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	30.	99.
24.	29.	99.
23.	28.	99.
22.	27.	99.
21.	26.	98.
20.	25.	95.
19.	24.	94.
18.	23.	91.
17.	22.	87.
16.	20.	81.
15.	19.	78.
14.	18.	74.
13.	17.	66.
12.	16.	57.
11.	15.	54.
10.	14.	48.
9.	13.	40.
8.	12.	33.
7.	11.	30.
6.	10.	25.
5.	8.	17.
4.	7.	10.
3.	6.	7.
2.	5.	5.
1.	4.	3.
0.	3.	1.

Table A9. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	29.	99.
22.	28.	99.
21.	27.	99.
20.	26.	99.
19.	25.	99.
18.	24.	99.
17.	23.	99.
16.	22.	99.
15.	21.	99.
14.	20.	98.
13.	19.	96.
12.	18.	92.
11.	17.	89.
10.	16.	84.
9.	14.	73.
8.	13.	62.
7.	12.	55.
6.	11.	49.
5.	10.	39.
4.	9.	29.
3.	8.	24.
2.	7.	19.
1.	6.	11.
0.	5.	4.

Table A10. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	29.	98.
22.	28.	98.
21.	27.	95.
20.	26.	92.
19.	24.	90.
18.	23.	87.
17.	22.	79.
16.	21.	70.
15.	20.	65.
14.	19.	58.
13.	18.	45.
12.	16.	35.
11.	15.	30.
10.	14.	27.
9.	13.	21.
8.	12.	15.
7.	11.	12.
6.	10.	10.
5.	8.	8.
4.	7.	5.
3.	6.	4.
2.	5.	3.
1.	4.	2.
0.	3.	1.

Table All. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
25	30	99
24	30	99
23	30	99
22	29	99
21	28	99
20	27	99
19	25	99
18	24	99
17	23	99
16	22	98
15	21	96
14	20	95
13	19	90
12	18	85
11	17	81
10	16	76
9	15	66
8	14	54
7	12	48
6	11	43
5	10	33
4	9	24
3	8	19
2	7	14
1	6	8
0	5	3

Table A12. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25	30	99
24	29	99
23	28	98
22	27	96
21	26	91
20	24	85
19	23	83
18	22	81
17	21	75
16	20	67
15	19	62
14	18	57
13	17	49
12	15	41
11	14	37
10	13	33
9	12	25
8	11	19
7	10	16
6	9	15
5	8	10
4	7	7
3	5	6
2	4	6
1	3	4
0	2	1

Table A13. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25.	30.	99.
24.	29.	99.
23.	28.	99.
22.	27.	99.
21.	26.	99.
20.	25.	99.
19.	24.	99.
18.	23.	99.
17.	22.	99.
16.	21.	99.
15.	20.	98.
14.	19.	97.
13.	18.	94.
12.	17.	89.
11.	16.	86.
10.	15.	81.
9.	14.	71.
8.	13.	62.
7.	12.	55.
6.	11.	49.
5.	10.	37.
4.	9.	25.
3.	8.	20.
2.	7.	17.
1.	6.	11.
0.	5.	4.

Table A14. ELECTRONICS INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25.	30.	99.
24.	29.	99.
23.	28.	99.
22.	27.	99.
21.	26.	98.
20.	25.	96.
19.	24.	95.
18.	23.	94.
17.	22.	91.
16.	21.	87.
15.	20.	84.
14.	19.	81.
13.	18.	75.
12.	17.	68.
11.	16.	64.
10.	15.	60.
9.	14.	51.
8.	13.	42.
7.	12.	37.
6.	11.	33.
5.	10.	25.
4.	9.	17.
3.	8.	14.
2.	6.	11.
1.	5.	7.
0.	4.	2.

Table A15. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	18.	99.
24.	18.	96.
23.	17.	94.
22.	16.	92.
21.	16.	87.
20.	15.	81.
19.	14.	78.
18.	14.	75.
17.	13.	70.
16.	12.	62.
15.	12.	58.
14.	11.	53.
13.	10.	46.
12.	10.	39.
11.	9.	34.
10.	8.	31.
9.	8.	25.
8.	7.	20.
7.	6.	17.
6.	6.	15.
5.	5.	12.
4.	4.	8.
3.	4.	6.
2.	3.	5.
1.	2.	3.
0.	1.	1.

Table A16. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	18.	99.
24.	17.	99.
23.	16.	98.
22.	16.	98.
21.	15.	96.
20.	15.	93.
19.	14.	91.
18.	13.	89.
17.	13.	85.
16.	12.	78.
15.	11.	73.
14.	11.	68.
13.	10.	59.
12.	9.	48.
11.	9.	41.
10.	8.	38.
9.	8.	31.
8.	7.	23.
7.	6.	19.
6.	6.	17.
5.	5.	11.
4.	4.	7.
3.	4.	5.
2.	3.	4.
1.	2.	2.
0.	2.	1.

Table A17. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25.	19.	99.
24.	18.	96.
23.	17.	93.
22.	16.	90.
21.	16.	82.
20.	15.	75.
19.	14.	72.
18.	14.	68.
17.	13.	59.
16.	12.	49.
15.	12.	43.
14.	11.	39.
13.	10.	32.
12.	9.	25.
11.	9.	21.
10.	8.	19.
9.	7.	14.
8.	7.	10.
7.	6.	9.
6.	5.	7.
5.	5.	4.
4.	4.	2.
3.	3.	2.
2.	2.	1.
1.	2.	1.
0.	1.	1.

Table A18. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
25.	18.	99.
24.	17.	98.
23.	17.	96.
22.	16.	95.
21.	15.	91.
20.	15.	85.
19.	14.	81.
18.	13.	78.
17.	13.	72.
16.	12.	65.
15.	11.	61.
14.	11.	58.
13.	10.	50.
12.	9.	41.
11.	9.	36.
10.	8.	31.
9.	7.	23.
8.	7.	16.
7.	6.	14.
6.	6.	11.
5.	5.	8.
4.	4.	6.
3.	4.	5.
2.	3.	3.
1.	2.	2.
0.	2.	1.

Table A19. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25.	19.	99.
24.	18.	96.
23.	17.	94.
22.	16.	93.
21.	16.	87.
20.	15.	78.
19.	14.	74.
18.	14.	70.
17.	13.	62.
16.	12.	54.
15.	12.	50.
14.	11.	46.
13.	10.	40.
12.	9.	34.
11.	9.	31.
10.	8.	27.
9.	7.	19.
8.	7.	14.
7.	6.	12.
6.	5.	10.
5.	5.	7.
4.	4.	5.
3.	3.	4.
2.	2.	3.
1.	2.	2.
0.	1.	1.

Table A20. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25.	18.	99.
24.	18.	99.
23.	17.	98.
22.	16.	97.
21.	16.	94.
20.	15.	91.
19.	14.	89.
18.	14.	86.
17.	13.	79.
16.	12.	71.
15.	12.	68.
14.	11.	63.
13.	10.	55.
12.	10.	44.
11.	9.	38.
10.	8.	34.
9.	8.	26.
8.	7.	18.
7.	6.	14.
6.	6.	12.
5.	5.	8.
4.	4.	6.
3.	4.	5.
2.	3.	4.
1.	2.	3.
0.	2.	1.

Table A21. SPACE PERCEPTION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25	18	99
24	18	97
23	17	96
22	16	94
21	16	90
20	15	84
19	14	81
18	14	78
17	13	71
16	12	63
15	12	59
14	11	55
13	10	47
12	10	39
11	9	34
10	8	30
9	8	23
8	7	17
7	6	14
6	5	12
5	5	8
4	4	6
3	3	4
2	3	3
1	2	2
0	1	1

Table A22. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	20.	99.
24.	19.	99.
23.	19.	99.
22.	18.	98.
21.	17.	97.
20.	16.	95.
19.	15.	93.
18.	14.	92.
17.	13.	88.
16.	13.	81.
15.	12.	77.
14.	11.	71.
13.	10.	62.
12.	9.	53.
11.	8.	48.
10.	7.	43.
9.	6.	33.
8.	6.	24.
7.	5.	19.
6.	4.	15.
5.	3.	8.
4.	2.	5.
3.	1.	4.
2.	0.	4.
1.	-0.	3.
0.	-1.	2.

Table A23. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	19.	99.
24.	18.	99.
23.	18.	99.
22.	17.	99.
21.	16.	99.
20.	15.	99.
19.	15.	99.
18.	14.	99.
17.	13.	99.
16.	12.	99.
15.	11.	99.
14.	11.	98.
13.	10.	94.
12.	9.	85.
11.	8.	80.
10.	8.	73.
9.	7.	60.
8.	6.	48.
7.	5.	42.
6.	5.	36.
5.	4.	26.
4.	3.	17.
3.	2.	12.
2.	2.	9.
1.	0.	5.
0.	0.	1.

Table A24. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25	20	99
24	20	99
23	19	98
22	18	97
21	17	94
20	16	89
19	15	87
18	15	84
17	14	78
16	13	71
15	12	66
14	11	61
13	10	49
12	9	37
11	8	29
10	7	23
9	6	15
8	5	11
7	4	9
6	3	7
5	3	4
4	2	3
3	0	3
2	-0	2
1	-1	1
0	-2	1

Table A25. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
25.	20.	99.
24.	19.	99.
23.	18.	99.
22.	17.	99.
21.	16.	99.
20.	16.	99.
19.	15.	99.
18.	14.	99.
17.	13.	98.
16.	12.	96.
15.	12.	95.
14.	11.	94.
13.	10.	91.
12.	9.	84.
11.	8.	79.
10.	8.	72.
9.	7.	58.
8.	6.	42.
7.	5.	33.
6.	5.	28.
5.	4.	19.
4.	3.	11.
3.	2.	7.
2.	1.	6.
1.	0.	4.
0.	-0.	1.

Table A26. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25	20	99
24	20	99
23	19	99
22	18	98
21	17	96
20	16	92
19	15	90
18	14	88
17	13	83
16	12	73
15	12	67
14	11	61
13	10	50
12	9	39
11	8	33
10	7	27
9	6	18
8	5	12
7	4	10
6	3	9
5	2	6
4	1	4
3	0	3
2	-0	2
1	-1	1
0	-2	1

Table A27. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25.	19.	99.
24.	18.	99.
23.	17.	99.
22.	17.	99.
21.	16.	99.
20.	15.	99.
19.	14.	99.
18.	13.	99.
17.	13.	99.
16.	12.	97.
15.	11.	96.
14.	10.	96.
13.	10.	91.
12.	9.	83.
11.	8.	79.
10.	7.	73.
9.	7.	62.
8.	6.	49.
7.	5.	40.
6.	4.	34.
5.	4.	24.
4.	3.	15.
3.	2.	12.
2.	1.	9.
1.	0.	6.
0.	-0.	3.

Table A28. AUTOMOTIVE INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	19.	99.
22.	18.	99.
21.	17.	98.
20.	16.	96.
19.	15.	95.
18.	15.	94.
17.	14.	91.
16.	13.	87.
15.	12.	85.
14.	11.	82.
13.	10.	75.
12.	9.	65.
11.	9.	60.
10.	8.	54.
9.	7.	43.
8.	6.	32.
7.	5.	26.
6.	4.	22.
5.	3.	15.
4.	3.	9.
3.	2.	7.
2.	0.	5.
1.	0.	3.
0.	-0.	1.

Table A29. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	19.	99.
22.	18.	99.
21.	17.	98.
20.	16.	95.
19.	16.	92.
18.	15.	90.
17.	14.	85.
16.	13.	78.
15.	12.	73.
14.	12.	69.
13.	11.	60.
12.	10.	51.
11.	9.	47.
10.	8.	41.
9.	8.	32.
8.	7.	24.
7.	6.	20.
6.	5.	17.
5.	5.	12.
4.	4.	8.
3.	3.	7.
2.	2.	6.
1.	1.	5.
0.	0.	2.

Table A30. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	19.	99.
24.	19.	99.
23.	18.	99.
22.	17.	99.
21.	16.	99.
20.	16.	99.
19.	15.	99.
18.	14.	99.
17.	13.	99.
16.	12.	97.
15.	12.	96.
14.	11.	93.
13.	10.	87.
12.	9.	80.
11.	9.	75.
10.	8.	71.
9.	7.	60.
8.	6.	47.
7.	6.	41.
6.	5.	35.
5.	4.	22.
4.	3.	12.
3.	2.	9.
2.	2.	6.
1.	0.	2.
0.	0.	1.

Table A31. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	19.	98.
22.	18.	97.
21.	17.	94.
20.	16.	89.
19.	16.	86.
18.	15.	82.
17.	14.	74.
16.	13.	65.
15.	12.	59.
14.	11.	51.
13.	10.	41.
12.	9.	33.
11.	9.	28.
10.	8.	22.
9.	7.	16.
8.	6.	10.
7.	5.	7.
6.	4.	6.
5.	3.	3.
4.	3.	2.
3.	2.	2.
2.	0.	1.
1.	-0.	1.
0.	-0.	1.

Table A32. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
25.	19.	99.
24.	19.	99.
23.	18.	99.
22.	17.	99.
21.	16.	99.
20.	16.	99.
19.	15.	98.
18.	14.	98.
17.	13.	95.
16.	12.	91.
15.	12.	88.
14.	11.	85.
13.	10.	78.
12.	9.	69.
11.	8.	63.
10.	8.	56.
9.	7.	43.
8.	6.	32.
7.	5.	27.
6.	5.	23.
5.	4.	15.
4.	3.	8.
3.	2.	6.
2.	1.	4.
1.	0.	2.
0.	-0.	1.

Table A33. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25	20	99
24	19	99
23	18	98
22	17	98
21	17	95
20	16	90
19	15	88
18	14	83
17	13	75
16	12	67
15	12	64
14	11	61
13	10	53
12	9	44
11	8	38
10	8	31
9	7	23
8	6	17
7	5	14
6	4	11
5	3	7
4	3	5
3	2	3
2	0	3
1	0	2
0	-0	1

Table A34. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25.	17.	99.
24.	17.	99.
23.	16.	99.
22.	15.	99.
21.	15.	99.
20.	14.	99.
19.	13.	99.
18.	13.	97.
17.	12.	95.
16.	11.	92.
15.	11.	90.
14.	10.	87.
13.	9.	81.
12.	9.	74.
11.	8.	68.
10.	7.	62.
9.	7.	51.
8.	6.	39.
7.	5.	31.
6.	4.	25.
5.	4.	16.
4.	3.	10.
3.	2.	8.
2.	2.	6.
1.	1.	3.
0.	0.	1.

Table A35. MECHANICAL COMPREHENSION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25	20	99
24	20	99
23	19	99
22	18	99
21	17	98
20	16	96
19	15	94
18	15	92
17	14	88
16	13	83
15	12	79
14	11	75
13	10	68
12	10	59
11	9	54
10	8	48
9	7	38
8	6	29
7	5	24
6	5	19
5	4	13
4	3	7
3	2	5
2	1	4
1	0	2
0	-0	1

Table A36. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	20.	99.
22.	20.	99.
21.	19.	98.
20.	18.	96.
19.	17.	93.
18.	16.	91.
17.	15.	86.
16.	14.	77.
15.	13.	71.
14.	12.	65.
13.	11.	56.
12.	11.	47.
11.	10.	41.
10.	9.	35.
9.	8.	27.
8.	7.	19.
7.	6.	16.
6.	5.	13.
5.	4.	8.
4.	3.	6.
3.	2.	5.
2.	1.	4.
1.	0.	2.
0.	-0.	1.

Table A37. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	20.	99.
22.	20.	99.
21.	19.	99.
20.	18.	99.
19.	17.	99.
18.	16.	99.
17.	16.	99.
16.	15.	99.
15.	14.	98.
14.	13.	97.
13.	12.	94.
12.	11.	90.
11.	11.	88.
10.	10.	83.
9.	9.	72.
8.	8.	60.
7.	7.	54.
6.	7.	46.
5.	6.	34.
4.	5.	24.
3.	4.	18.
2.	3.	12.
1.	3.	5.
0.	2.	1.

Table A38. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	20.	98.
22.	19.	97.
21.	19.	93.
20.	18.	88.
19.	17.	84.
18.	16.	81.
17.	15.	73.
16.	14.	65.
15.	13.	60.
14.	12.	54.
13.	11.	43.
12.	10.	32.
11.	10.	28.
10.	9.	25.
9.	8.	19.
8.	7.	14.
7.	6.	11.
6.	5.	8.
5.	4.	5.
4.	3.	3.
3.	2.	2.
2.	1.	1.
1.	0.	1.
0.	-0.	1.

Table A39. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
25.	20.	99.
24.	20.	99.
23.	20.	99.
22.	20.	99.
21.	19.	99.
20.	18.	99.
19.	18.	99.
18.	17.	99.
17.	16.	98.
16.	15.	97.
15.	14.	96.
14.	13.	94.
13.	13.	90.
12.	12.	83.
11.	11.	79.
10.	10.	72.
9.	9.	61.
8.	8.	48.
7.	8.	39.
6.	7.	32.
5.	6.	22.
4.	5.	14.
3.	4.	10.
2.	3.	7.
1.	3.	3.
0.	2.	1.

Table A40. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25+	20+	99+
24+	20+	99+
23+	20+	98+
22+	19+	97+
21+	18+	95+
20+	17+	91+
19+	16+	88+
18+	15+	83+
17+	14+	74+
16+	13+	66+
15+	12+	62+
14+	12+	57+
13+	11+	48+
12+	10+	37+
11+	9+	31+
10+	8+	25+
9+	7+	17+
8+	6+	12+
7+	5+	9+
6+	4+	8+
5+	3+	6+
4+	2+	4+
3+	1+	3+
2+	0+	3+
1+	-0+	2+
0+	-2+	1+

Table A41. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25+	20+	99+
24+	20+	99+
23+	20+	99+
22+	20+	99+
21+	19+	99+
20+	19+	99+
19+	18+	99+
18+	17+	99+
17+	16+	99+
16+	15+	98+
15+	14+	98+
14+	13+	95+
13+	13+	90+
12+	12+	86+
11+	11+	83+
10+	10+	79+
9+	9+	68+
8+	8+	55+
7+	7+	47+
6+	6+	42+
5+	6+	31+
4+	5+	20+
3+	4+	15+
2+	3+	10+
1+	2+	5+
0+	1+	2+

Table A42. SHOP INFORMATION: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25+	20+	99+
24+	20+	99+
23+	20+	99+
22+	19+	99+
21+	18+	98+
20+	18+	96+
19+	17+	95+
18+	16+	93+
17+	15+	89+
16+	14+	85+
15+	14+	82+
14+	13+	79+
13+	12+	72+
12+	11+	65+
11+	10+	60+
10+	9+	55+
9+	9+	46+
8+	8+	36+
7+	7+	31+
6+	6+	26+
5+	5+	18+
4+	5+	12+
3+	4+	9+
2+	3+	6+
1+	2+	3+
0+	1+	1+

TAble A43. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	30.	99.
22.	29.	99.
21.	28.	99.
20.	27.	98.
19.	25.	97.
18.	24.	94.
17.	23.	88.
16.	22.	80.
15.	20.	74.
14.	19.	70.
13.	18.	61.
12.	17.	52.
11.	15.	47.
10.	14.	42.
9.	13.	32.
8.	12.	25.
7.	10.	22.
6.	9.	19.
5.	8.	14.
4.	7.	10.
3.	6.	7.
2.	4.	5.
1.	3.	3.
0.	2.	1.

Table A44. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	29.	99.
22.	28.	99.
21.	27.	99.
20.	26.	98.
19.	24.	97.
18.	23.	96.
17.	22.	91.
16.	21.	83.
15.	20.	79.
14.	18.	75.
13.	17.	69.
12.	16.	61.
11.	15.	57.
10.	14.	51.
9.	12.	39.
8.	11.	30.
7.	10.	26.
6.	9.	22.
5.	8.	15.
4.	7.	10.
3.	5.	8.
2.	4.	6.
1.	3.	4.
0.	2.	1.

Table A45. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	30.	99.
22.	29.	99.
21.	28.	97.
20.	26.	92.
19.	25.	89.
18.	24.	85.
17.	23.	76.
16.	22.	63.
15.	20.	55.
14.	19.	50.
13.	18.	40.
12.	17.	32.
11.	16.	27.
10.	14.	24.
9.	13.	18.
8.	12.	13.
7.	11.	10.
6.	10.	9.
5.	9.	7.
4.	7.	5.
3.	6.	4.
2.	5.	3.
1.	4.	2.
0.	3.	1.

Table A46. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES.

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	29.	99.
22.	28.	98.
21.	27.	97.
20.	26.	94.
19.	25.	92.
18.	24.	89.
17.	22.	82.
16.	21.	73.
15.	20.	69.
14.	19.	63.
13.	18.	53.
12.	17.	43.
11.	15.	38.
10.	14.	34.
9.	13.	27.
8.	12.	20.
7.	11.	17.
6.	10.	15.
5.	8.	10.
4.	7.	6.
3.	6.	5.
2.	5.	4.
1.	4.	2.
0.	3.	1.

Table A47. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
25	30	99
24	30	99
23	30	99
22	29	99
21	28	98
20	27	94
19	26	92
18	24	89
17	23	79
16	22	67
15	21	61
14	19	54
13	18	43
12	17	36
11	16	33
10	14	28
9	13	20
8	12	15
7	11	13
6	10	11
5	8	8
4	7	5
3	6	4
2	5	2
1	3	1
0	2	1

Table A48. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	29.	99.
22.	28.	99.
21.	27.	98.
20.	26.	93.
19.	25.	90.
18.	23.	88.
17.	22.	83.
16.	21.	76.
15.	20.	71.
14.	19.	66.
13.	17.	57.
12.	16.	47.
11.	15.	41.
10.	14.	36.
9.	13.	29.
8.	11.	21.
7.	10.	17.
6.	9.	14.
5.	8.	10.
4.	7.	6.
3.	5.	3.
2.	4.	3.
1.	3.	1.
0.	2.	1.

Table A49. WORD KNOWLEDGE: EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
25.	30.	99.
24.	30.	99.
23.	30.	99.
22.	28.	99.
21.	27.	98.
20.	26.	95.
19.	25.	93.
18.	24.	90.
17.	22.	83.
16.	21.	73.
15.	20.	68.
14.	19.	63.
13.	18.	54.
12.	16.	45.
11.	15.	40.
10.	14.	35.
9.	13.	27.
8.	12.	21.
7.	11.	17.
6.	9.	15.
5.	8.	10.
4.	7.	7.
3.	6.	5.
2.	5.	4.
1.	3.	2.
0.	2.	1.

Table B1. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75.	60.	99.	30.	27.	59.
74.	60.	99.	29.	27.	57.
73.	60.	99.	28.	26.	54.
72.	49.	99.	27.	26.	52.
71.	45.	99.	26.	25.	50.
70.	48.	99.	25.	24.	50.
69.	47.	99.	24.	24.	47.
68.	47.	99.	23.	23.	44.
67.	46.	99.	22.	23.	41.
66.	45.	99.	21.	22.	39.
65.	45.	99.	20.	21.	37.
64.	44.	99.	19.	21.	34.
63.	44.	99.	18.	20.	31.
62.	43.	96.	17.	20.	29.
61.	43.	92.	16.	18.	24.
60.	42.	98.	15.	18.	22.
59.	41.	98.	14.	17.	20.
58.	41.	97.	13.	17.	18.
57.	40.	97.	12.	16.	15.
56.	40.	95.	11.	15.	13.
55.	39.	94.	10.	15.	11.
54.	38.	92.	9.	14.	11.
53.	38.	91.	8.	13.	9.
52.	37.	89.	7.	13.	8.
51.	37.	87.	6.	12.	7.
50.	36.	86.	5.	12.	7.
49.	35.	84.	4.	11.	5.
48.	35.	81.	3.	10.	4.
47.	34.	79.	2.	10.	2.
46.	33.	78.	1.	9.	2.
45.	33.	76.	0.	9.	1.
44.	32.	75.		8.	1.
43.	32.	74.		7.	1.
42.	31.	73.		7.	1.
41.	30.	71.		6.	1.
40.	30.	69.		6.	1.
39.	29.	67.			
38.	29.	64.			
37.	28.	62.			

Table B2. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
			36.	31.	94.
75.	60.	99.	35.	30.	94.
74.	60.	99.	34.	29.	92.
73.	50.	99.	33.	29.	89.
72.	50.	99.	32.	28.	87.
71.	50.	99.	31.	27.	85.
70.	50.	99.	30.	27.	82.
69.	50.	99.	29.	26.	79.
68.	50.	99.	28.	25.	77.
67.	50.	99.	27.	25.	74.
66.	50.	99.	26.	24.	70.
65.	49.	99.	25.	24.	66.
64.	48.	99.	24.	23.	61.
63.	48.	99.	23.	22.	57.
62.	47.	99.	22.	22.	53.
61.	47.	99.			
60.	46.	99.	21.	21.	49.
59.	46.	99.	20.	20.	46.
58.	45.	99.	19.	20.	43.
57.	44.	99.	18.	19.	40.
56.	43.	99.	17.	18.	37.
55.	43.	99.	16.	18.	34.
54.	42.	99.	15.	17.	31.
53.	41.	99.	14.	16.	28.
52.	41.	99.	13.	16.	24.
51.	40.	99.	12.	15.	21.
50.	40.	99.	11.	15.	19.
49.	39.	99.	10.	14.	16.
48.	38.	99.	9.	13.	13.
47.	38.	99.	8.	13.	12.
46.	37.	99.	7.	12.	10.
45.	36.	99.	6.	11.	8.
44.	36.	99.	5.	11.	7.
43.	35.	99.	4.	10.	5.
42.	34.	99.	3.	9.	4.
41.	34.	98.	2.	9.	3.
40.	33.	98.	1.	8.	1.
39.	32.	97.	0.	7.	1.
38.	32.	96.			
37.	31.	95.			

Table B3. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75.	50.	99.	34.	28.	35.
74.	50.	99.	33.	27.	33.
73.	50.	99.	32.	27.	31.
72.	50.	99.	31.	26.	29.
71.	49.	99.	30.	25.	26.
70.	49.	99.	29.	25.	24.
69.	48.	99.	28.	24.	22.
68.	48.	99.	27.	24.	20.
67.	47.	99.	26.	23.	18.
66.	46.	99.	25.	22.	16.
65.	46.	98.	24.	22.	15.
64.	45.	98.	23.	21.	13.
63.	44.	97.	22.	21.	12.
62.	44.	97.	21.	20.	11.
61.	43.	96.	20.	19.	10.
60.	43.	95.	19.	18.	9.
59.	42.	94.	18.	18.	9.
58.	41.	93.	17.	17.	8.
57.	41.	92.	16.	16.	8.
56.	40.	90.	15.	16.	6.
55.	40.	88.	14.	15.	5.
54.	39.	86.	13.	14.	5.
53.	38.	84.	12.	14.	5.
52.	38.	81.	11.	13.	4.
51.	37.	79.	10.	13.	3.
50.	37.	77.	9.	12.	3.
49.	36.	74.	8.	11.	2.
48.	35.	72.	7.	11.	2.
47.	35.	69.	6.	10.	1.
46.	34.	66.	5.	10.	1.
45.	33.	63.	4.	9.	1.
44.	33.	60.	3.	8.	1.
43.	32.	58.	2.	8.	1.
42.	32.	55.	1.	7.	1.
41.	31.	50.	0.	6.	1.
40.	30.	46.		6.	1.
39.	30.	44.			
38.	29.	41.			
37.	29.	38.			

Table B4. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	50+	99+	36+	31+	85+
74+	50+	99+	35+	30+	84+
73+	50+	99+	34+	30+	82+
72+	50+	99+	33+	29+	80+
71+	50+	99+	32+	28+	76+
70+	50+	99+	31+	28+	73+
69+	50+	99+	30+	27+	70+
68+	50+	99+	29+	26+	67+
67+	50+	99+	28+	26+	64+
66+	50+	99+	27+	25+	60+
65+	49+	99+	26+	24+	57+
64+	48+	99+	25+	24+	53+
63+	48+	99+	24+	23+	48+
62+	47+	99+	23+	23+	46+
61+	46+	99+	22+	22+	43+
60+	46+	99+	21+	21+	41+
59+	45+	99+	20+	21+	37+
58+	45+	99+	19+	20+	34+
57+	44+	99+	18+	19+	32+
56+	43+	99+	17+	19+	29+
55+	43+	99+	16+	18+	26+
54+	42+	99+	15+	18+	24+
53+	41+	99+	14+	17+	21+
52+	41+	99+	13+	16+	18+
51+	40+	99+	12+	16+	16+
50+	40+	99+	11+	15+	14+
49+	39+	99+	10+	14+	12+
48+	38+	98+	9+	14+	10+
47+	38+	97+	8+	13+	8+
46+	37+	97+	7+	13+	6+
45+	36+	96+	6+	12+	5+
44+	36+	96+	5+	11+	4+
43+	35+	95+	4+	11+	4+
42+	35+	94+	3+	10+	3+
41+	34+	93+	2+	9+	3+
40+	33+	92+	1+	9+	2+
39+	33+	91+	0+	8+	1+
38+	32+	89+			
37+	31+	87+			

Table B5. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
76.	60.	99.	36.	27.	42.
74.	60.	99.	35.	26.	40.
73.	49.	99.	34.	25.	39.
72.	49.	99.	33.	25.	37.
71.	48.	99.	32.	24.	35.
70.	47.	99.	31.	24.	32.
69.	47.	99.	30.	23.	30.
68.	46.	98.	29.	22.	28.
67.	46.	98.	28.	22.	26.
66.	45.	98.	27.	21.	24.
65.	44.	97.	26.	21.	22.
64.	44.	96.	25.	20.	20.
63.	43.	96.	24.	19.	18.
62.	42.	95.	23.	19.	17.
61.	42.	92.	22.	18.	15.
60.	41.	90.	21.	17.	14.
59.	41.	89.	20.	17.	13.
58.	40.	88.	19.	16.	12.
57.	39.	87.	18.	16.	10.
56.	39.	85.	17.	15.	9.
55.	38.	85.	16.	14.	7.
54.	38.	83.	15.	14.	7.
53.	37.	81.	14.	13.	6.
52.	36.	79.	13.	13.	6.
51.	36.	77.	12.	12.	5.
50.	35.	75.	11.	11.	4.
49.	35.	73.	10.	11.	4.
48.	34.	71.	9.	10.	4.
47.	33.	69.	8.	10.	3.
46.	33.	66.	7.	9.	2.
45.	32.	63.	6.	8.	2.
44.	32.	60.	5.	8.	2.
43.	31.	57.	4.	7.	2.
42.	30.	55.	3.	6.	2.
41.	30.	54.	2.	6.	1.
40.	29.	53.	1.	5.	1.
39.	28.	51.	0.	0.	1.
38.	28.	48.			
37.	27.	45.			

Table B6. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	26+	30+	85+
74+	60+	99+	35+	29+	87+
73+	50+	99+	34+	29+	85+
72+	60+	99+	33+	23+	84+
71+	50+	99+	32+	28+	81+
70+	50+	99+	31+	27+	79+
69+	50+	99+	30+	26+	77+
68+	49+	99+	29+	26+	75+
67+	49+	99+	28+	25+	71+
66+	48+	99+	27+	24+	68+
65+	48+	99+	26+	24+	65+
64+	47+	99+	25+	23+	61+
63+	46+	99+	24+	23+	58+
62+	46+	99+	23+	22+	56+
61+	45+	99+	22+	21+	52+
60+	45+	99+	21+	21+	47+
59+	44+	99+	20+	20+	43+
58+	43+	99+	19+	20+	40+
57+	43+	99+	18+	19+	36+
56+	42+	99+	17+	18+	32+
55+	41+	99+	16+	18+	29+
54+	41+	99+	15+	17+	25+
53+	40+	99+	14+	17+	22+
52+	40+	99+	13+	16+	20+
51+	39+	99+	12+	15+	17+
50+	38+	99+	11+	15+	16+
49+	38+	99+	10+	14+	14+
48+	37+	99+	9+	14+	11+
47+	37+	99+	8+	13+	10+
46+	36+	99+	7+	12+	9+
45+	35+	98+	6+	12+	8+
44+	35+	98+	5+	11+	7+
43+	34+	97+	4+	11+	6+
42+	34+	96+	3+	10+	5+
41+	33+	95+	2+	9+	3+
40+	32+	94+	1+	8+	2+
39+	32+	92+	0+		1+
38+	31+	91+			
37+	31+	89+			

Table B7. ELECTRONICS COMPOSITE (EL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	50+	99+	36+	29+	69+
74+	50+	99+	35+	28+	67+
73+	50+	99+	34+	27+	66+
72+	50+	99+	33+	27+	63+
71+	49+	99+	32+	26+	61+
70+	49+	99+	31+	26+	58+
69+	48+	99+	30+	25+	56+
68+	47+	99+	29+	25+	53+
67+	47+	99+	28+	24+	51+
66+	46+	99+	27+	23+	48+
65+	46+	99+	26+	23+	45+
64+	45+	99+	25+	22+	42+
63+	44+	99+	24+	22+	39+
62+	44+	98+	23+	21+	37+
61+	43+	98+	22+	20+	34+
60+	43+	98+	21+	20+	32+
59+	42+	97+	20+	19+	29+
58+	41+	97+	19+	19+	27+
57+	41+	96+	18+	18+	25+
56+	40+	95+	17+	18+	22+
55+	40+	95+	16+	17+	20+
54+	39+	94+	15+	16+	18+
53+	39+	93+	14+	16+	16+
52+	38+	92+	13+	15+	14+
51+	37+	91+	12+	15+	12+
50+	37+	90+	11+	14+	11+
49+	36+	89+	10+	13+	9+
48+	36+	88+	9+	13+	8+
47+	35+	87+	8+	12+	6+
46+	34+	86+	7+	12+	5+
45+	34+	84+	6+	11+	4+
44+	33+	83+	5+	11+	4+
43+	33+	82+	4+	10+	3+
42+	32+	80+	3+	9+	3+
41+	32+	78+	2+	9+	2+
40+	31+	77+	1+	8+	2+
39+	30+	75+	0+	8+	1+
38+	30+	73+			
37+	29+	71+			

Table B8. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

Form 2	Form 5	Per-centile	Form 2	Form 5	Per-centile
75+	[illegible]	99+	36+	31+	47+
74+	59+	99+	35+	30+	44+
73+	58+	99+	34+	30+	41+
72+	57+	59+	33+	29+	39+
71+	56+	99+	32+	28+	33+
	56+	99+	31+	27+	30+
	55+	99+	30+	27+	28+
66+	54+	99+	29+	26+	27+
67+	54+	59+	28+	25+	26+
66+	53+	99+	27+	24+	25+
65+	52+	59+	26+	24+	24+
64+	51+	99+	25+	23+	22+
63+	51+	98+	24+	22+	20+
62+	50+	97+	23+	21+	18+
61+	49+	96+	22+	21+	15+
60+	48+	95+	21+	20+	13+
59+	48+	95+	20+	19+	11+
58+	47+	93+	19+	19+	10+
57+	46+	92+	18+	18+	9+
56+	45+	91+	17+	17+	7+
55+	45+	90+	16+	16+	6+
54+	44+	89+	15+	16+	5+
53+	43+	87+	14+	15+	5+
52+	43+	84+	13+	14+	4+
51+	42+	82+	12+	13+	3+
50+	41+	80+	11+	13+	3+
49+	40+	78+	10+	12+	3+
48+	40+	75+	9+	11+	2+
47+	39+	73+	8+	11+	2+
46+	38+	70+	7+	10+	1+
45+	38+	66+	6+	9+	1+
44+	37+	64+	5+	8+	1+
43+	36+	62+	4+	8+	1+
42+	35+	60+	3+	7+	1+
41+	35+	59+	2+	6+	1+
40+	34+	56+	1+	5+	1+
39+	33+	55+	0+	5+	1+
38+	32+	53+			
37+	32+	51+			

Table B9. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALE

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75.	60.	99.	36.	33.	84.
74.	60.	99.	35.	33.	82.
73.	60.	99.	34.	32.	79.
72.	59.	99.	33.	31.	75.
71.	59.	99.	32.	30.	73.
70.	58.	99.	31.	30.	71.
69.	57.	99.	30.	29.	68.
68.	56.	99.	29.	28.	64.
67.	56.	99.	28.	28.	62.
66.	55.	99.	27.	27.	58.
65.	54.	99.	26.	26.	54.
64.	54.	99.	25.	25.	50.
63.	53.	99.	24.	25.	46.
62.	52.	99.	23.	24.	43.
61.	51.	99.	22.	23.	40.
60.	51.	99.	21.	23.	37.
59.	50.	99.	20.	22.	34.
58.	49.	99.	19.	21.	31.
57.	48.	99.	18.	20.	28.
56.	48.	99.	17.	20.	24.
55.	47.	99.	16.	19.	20.
54.	46.	99.	15.	18.	17.
53.	46.	99.	14.	16.	15.
52.	45.	99.	13.	17.	12.
51.	44.	99.	12.	16.	10.
50.	43.	99.	11.	15.	8.
49.	43.	99.	10.	15.	7.
48.	42.	98.	9.	14.	6.
47.	41.	98.	8.	13.	4.
46.	41.	97.	7.	13.	3.
45.	40.	97.	6.	12.	2.
44.	39.	96.	5.	11.	2.
43.	38.	96.	4.	10.	1.
42.	38.	94.	3.	10.	1.
41.	37.	92.	2.	9.	1.
40.	36.	90.	1.	8.	1.
39.	36.	89.	0.	7.	1.
38.	35.	88.			
37.	34.	86.			

Table B10. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

Form 2	Form 5	Percentile
75+	59+	99+
74+	59+	99+
73+	58+	99+
72+	57+	99+
71+	56+	99+
70+	56+	99+
69+	55+	99+
68+	54+	98+
67+	54+	98+
66+	53+	97+
65+	52+	96+
64+	52+	94+
63+	51+	94+
62+	50+	93+
61+	49+	91+
60+	49+	90+
59+	48+	89+
58+	47+	88+
57+	47+	86+
56+	46+	84+
55+	45+	82+
54+	44+	80+
53+	44+	78+
52+	43+	74+
51+	42+	72+
50+	42+	71+
49+	41+	68+
48+	40+	64+
47+	39+	62+
46+	39+	59+
45+	38+	56+
44+	37+	53+
43+	37+	49+
42+	36+	46+
41+	35+	43+
40+	35+	40+
39+	34+	38+
38+	33+	36+
37+	32+	33+
36+	32+	30+
35+	31+	28+
34+	30+	26+
33+	30+	23+
32+	29+	21+
31+	28+	19+
30+	27+	17+
29+	27+	16+
28+	26+	15+
27+	25+	14+
26+	25+	13+
25+	24+	11+
24+	23+	9+
23+	23+	8+
22+	22+	7+
21+	21+	5+
20+	20+	4+
19+	20+	3+
18+	19+	3+
17+	18+	3+
16+	18+	3+
15+	17+	2+
14+	16+	2+
13+	15+	1+
12+	15+	1+
11+	14+	1+
10+	13+	1+
9+	13+	1+
8+	12+	1+
7+	11+	1+
6+	11+	1+
5+	10+	1+
4+	9+	1+
3+	8+	1+
2+	8+	1+
1+	7+	1+
0+	6+	1+

Table B11. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	36+	34+	73+
74+	60+	98+	35+	33+	71+
73+	59+	99+	34+	32+	68+
72+	63+	99+	33+	31+	64+
71+	56+	99+	32+	31+	60+
70+	57+	99+	31+	30+	55+
69+	56+	99+	30+	29+	52+
68+	64+	99+	29+	29+	49+
67+	55+	99+	28+	28+	45+
66+	54+	99+	27+	27+	40+
65+	59+	99+	26+	27+	38+
64+	63+	99+	25+	26+	36+
63+	62+	99+	24+	25+	32+
62+	62+	99+	23+	24+	30+
61+	61+	99+	22+	24+	27+
60+	60+	95+	21+	23+	24+
59+	49+	99+	20+	22+	21+
58+	49+	99+	19+	22+	19+
57+	48+	99+	18+	21+	15+
56+	47+	98+	17+	20+	13+
55+	47+	98+	16+	20+	11+
54+	46+	98+	15+	19+	10+
53+	45+	98+	14+	18+	9+
52+	45+	97+	13+	18+	8+
51+	44+	97+	12+	17+	6+
50+	43+	96+	11+	16+	5+
49+	43+	96+	10+	15+	5+
48+	42+	95+	9+	15+	4+
47+	41+	94+	8+	14+	3+
46+	40+	93+	7+	13+	3+
45+	40+	91+	6+	13+	2+
44+	39+	90+	5+	12+	2+
43+	38+	89+	4+	11+	1+
42+	38+	87+	3+	11+	1+
41+	37+	85+	2+	10+	1+
40+	36+	83+	1+	9+	1+
39+	36+	81+	0+	9+	1+
38+	35+	79+			
37+	34+	76+			

Table B12. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	58+	99+	36+	31+	33+
74+	58+	99+	35+	30+	31+
73+	57+	99+	34+	29+	30+
72+	56+	99+	33+	29+	28+
71+	55+	99+	32+	28+	27+
70+	55+	99+	31+	27+	25+
69+	54+	99+	30+	27+	23+
68+	53+	98+	29+	26+	19+
67+	53+	98+	28+	25+	17+
66+	52+	98+	27+	25+	15+
65+	51+	98+	26+	24+	13+
64+	51+	97+	25+	23+	12+
63+	50+	96+	24+	22+	10+
62+	49+	95+	23+	22+	9+
61+	48+	93+	22+	21+	7+
60+	48+	92+	21+	20+	7+
59+	47+	91+	20+	20+	7+
58+	46+	89+	19+	19+	6+
57+	46+	86+	18+	18+	6+
56+	45+	84+	17+	17+	6+
55+	44+	83+	16+	17+	5+
54+	43+	81+	15+	16+	5+
53+	42+	79+	14+	15+	4+
52+	42+	77+	13+	15+	4+
51+	41+	75+	12+	14+	3+
50+	41+	74+	11+	13+	3+
49+	40+	73+	10+	13+	2+
48+	39+	70+	9+	12+	2+
47+	39+	67+	8+	11+	2+
46+	38+	63+	7+	10+	2+
45+	37+	59+	6+	10+	2+
44+	36+	55+	5+	9+	2+
43+	36+	51+	4+	8+	2+
42+	35+	48+	3+	8+	2+
41+	34+	45+	2+	7+	2+
40+	34+	41+	1+	6+	2+
39+	33+	39+	0+	6+	1+
38+	32+	37+			
37+	32+	35+			

Table B13. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
70+	60+	99+	36+	34+	79+
74+	60+	99+	35+	34+	76+
73+	60+	99+	34+	33+	74+
72+	60+	99+	33+	32+	71+
71+	60+	99+	32+	31+	68+
70+	60+	99+	31+	31+	65+
69+	59+	99+	31+	30+	61+
68+	58+	99+	30+	29+	57+
67+	57+	99+	29+	28+	53+
66+	57+	99+	28+	28+	50+
65+	56+	99+	27+	27+	47+
64+	55+	99+	26+	26+	43+
63+	55+	99+	25+	25+	40+
62+	54+	99+	24+	25+	38+
61+	53+	99+	23+	24+	35+
60+	52+	99+	22+	23+	32+
59+	52+	99+	21+	23+	29+
58+	51+	99+	20+	22+	26+
57+	50+	99+	19+	21+	25+
56+	49+	99+	18+	20+	22+
55+	49+	99+	17+	20+	19+
54+	48+	99+	16+	19+	17+
53+	47+	99+	15+	18+	14+
52+	46+	98+	14+	17+	10+
51+	46+	98+	13+	17+	8+
50+	45+	98+	12+	16+	7+
49+	44+	97+	11+	15+	6+
48+	43+	96+	10+	14+	5+
47+	43+	96+	9+	14+	4+
46+	42+	95+	8+	13+	3+
45+	41+	93+	7+	12+	3+
44+	40+	92+	6+	11+	2+
43+	40+	91+	5+	11+	2+
42+	39+	90+	4+	10+	1+
41+	38+	88+	3+	9+	1+
40+	37+	86+	2+	8+	1+
39+	37+	85+	1+	8+	1+
38+	36+	83+	0+		
37+	35+	82+			

Table B14. GENERAL MECHANICS COMPOSITE (GMC): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	36+	33+	59+
74+	59+	99+	35+	32+	57+
73+	58+	99+	34+	31+	54+
72+	58+	99+	33+	30+	51+
71+	57+	99+	32+	30+	48+
70+	56+	99+	31+	29+	45+
69+	56+	99+	30+	28+	43+
68+	55+	99+	29+	28+	40+
67+	54+	99+	28+	27+	37+
66+	53+	99+	27+	26+	34+
65+	53+	99+	26+	26+	32+
64+	52+	98+	25+	25+	30+
63+	51+	98+	24+	24+	27+
62+	51+	98+	23+	23+	25+
61+	50+	97+	22+	23+	22+
60+	49+	96+	21+	22+	20+
59+	49+	96+	20+	21+	18+
58+	48+	95+	19+	21+	16+
57+	47+	94+	18+	20+	14+
56+	46+	93+	17+	19+	12+
55+	46+	93+	16+	19+	11+
54+	45+	92+	15+	18+	10+
53+	44+	91+	14+	17+	8+
52+	44+	89+	13+	16+	7+
51+	43+	88+	12+	16+	5+
50+	42+	87+	11+	15+	4+
49+	42+	86+	10+	14+	4+
48+	41+	84+	9+	14+	3+
47+	40+	83+	8+	13+	3+
46+	39+	81+	7+	12+	2+
45+	39+	79+	6+	12+	2+
44+	38+	76+	5+	11+	1+
43+	37+	74+	4+	10+	1+
42+	37+	72+	3+	9+	1+
41+	36+	70+	2+	9+	1+
40+	35+	68+	1+	8+	1+
39+	35+	66+	0+	7+	1+
38+	34+	64+			
37+	33+	62+			

Table B15.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
88.	110.	99.
87.	110.	99.
86.	110.	99.
85.	110.	99.
84.	110.	98.
83.	110.	99.
82.	109.	99.
81.	107.	99.
80.	105.	99.
79.	103.	99.
78.	101.	99.
77.	99.	99.
76.	97.	99.
75.	95.	99.
74.	93.	99.
73.	91.	99.
72.	89.	99.
71.	87.	99.
70.	85.	99.
69.	83.	97.
68.	81.	96.
67.	79.	95.
66.	77.	95.
65.	75.	92.
64.	73.	89.
63.	72.	86.
62.	70.	83.
61.	68.	79.
60.	66.	76.
59.	64.	73.
58.	62.	68.
57.	60.	63.
56.	58.	57.
55.	56.	51.
54.	54.	46.
53.	52.	40.
52.	50.	35.
51.	48.	32.
50.	46.	30.
49.	44.	27.
48.	42.	23.
47.	40.	20.
46.	38.	18.
45.	36.	15.
44.	34.	12.
43.	32.	9.
42.	30.	7.
41.	28.	6.
40.	27.	4.
39.	25.	3.
38.	23.	3.
37.	21.	2.
36.	19.	1.
35.	17.	1.
34.	15.	1.
33.	13.	1.
32.	11.	1.
31.	9.	1.
30.	7.	1.

Table B16.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
58	110	99
57	110	99
56	110	99
55	110	99
54	109	99
53	107	99
52	105	99
51	104	99
50	102	99
49	100	99
48	98	99
47	96	99
46	94	99
45	93	99
44	91	99
43	89	99
42	87	99
41	85	99
40	83	98
39	82	97
38	80	97
37	78	95
36	76	92
35	74	89
34	72	86
33	71	83
32	69	80
31	67	76
30	66	71
29	63	66
28	62	63
27	60	58
26	58	52
25	56	46
24	54	40
23	52	34
22	51	29
21	49	25
20	47	23
19	46	20
18	43	17
17	41	14
16	40	12
15	38	9
14	36	8
13	34	7
12	32	6
11	31	4
10	29	3
9	27	2
8	25	2
7	23	1
6	21	1
5	20	1
4	18	1
3	16	1
2	14	1
1	12	1
0	10	1

Table B17.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
58	110	99
57	110	99
56	110	99
55	110	99
54	110	99
53	110	99
52	110	99
51	110	99
50	110	99
49	108	99
48	106	99
47	104	99
46	102	99
45	100	99
44	98	99
43	96	99
42	94	98
41	92	97
40	90	95
39	88	93
38	86	89
37	84	87
36	82	84
35	80	81
34	78	76
33	76	70
32	74	63
31	72	56
30	70	51
29	68	46
28	66	40
27	64	34
26	62	29
25	60	25
24	58	22
23	56	19
22	54	15
21	52	12
20	50	10
19	48	8
18	46	7
17	44	7
16	42	5
15	40	4
14	38	3
13	36	2
12	34	2
11	32	1
10	30	1
9	28	1
8	26	1
7	25	1
6	23	1
5	21	1
4	19	1
3	17	1
2	15	1
1	13	1
0	11	1

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ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB) CORRELATIONA--ETC(U)
OCT 76 J FLETCHER, M J REE F41609-76-C-0006
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Table B18.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
58+	110+	99+
57+	110+	99+
56+	110+	95+
55+	110+	95+
54+	110+	99+
53+	110+	99+
52+	109+	99+
51+	107+	99+
50+	105+	95+
49+	103+	99+
48+	101+	99+
47+	100+	99+
46+	98+	99+
45+	96+	98+
44+	94+	97+
43+	92+	97+
42+	90+	96+
41+	88+	94+
40+	87+	92+
39+	85+	90+
38+	83+	87+
37+	81+	84+
36+	79+	80+
35+	77+	77+
34+	75+	72+
33+	73+	67+
32+	72+	62+
31+	70+	57+
30+	68+	51+
29+	66+	45+
28+	64+	40+
27+	62+	35+
26+	60+	31+
25+	59+	28+
24+	57+	25+
23+	55+	21+
22+	53+	18+
21+	51+	15+
20+	49+	12+
19+	47+	10+
18+	45+	8+
17+	44+	6+
16+	42+	5+
15+	40+	3+
14+	38+	2+
13+	36+	2+
12+	34+	1+
11+	32+	1+
10+	31+	1+
9+	29+	1+
8+	27+	1+
7+	25+	1+
6+	23+	1+
5+	21+	1+
4+	19+	1+
3+	17+	1+
2+	16+	1+
1+	14+	1+
0+	12+	1+

Table B19.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
68	110	99
67	110	99
66	110	99
65	110	99
64	110	99
63	110	99
62	110	99
61	110	99
60	108	99
49	106	99
48	104	99
47	102	99
46	100	99
45	98	99
44	96	99
43	94	98
42	92	95
41	90	93
40	88	91
39	86	90
38	84	92
37	82	89
36	80	86
35	78	82
34	76	78
33	74	73
32	72	67
31	70	61
30	68	56
29	66	52
28	64	47
27	63	41
26	61	35
25	59	31
24	57	27
23	55	24
22	53	22
21	51	19
20	49	17
19	47	14
18	45	12
17	43	11
16	41	10
15	39	8
14	37	5
13	35	3
12	33	2
11	31	2
10	29	2
9	27	2
8	25	1
7	23	1
6	21	1
5	19	1
4	17	1
3	15	1
2	13	1
1	11	1
0	9	1

Table B20.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
58	110	99
57	110	99
56	110	99
55	105	95
54	108	99
53	106	99
52	104	99
51	102	99
50	100	99
49	99	99
48	97	99
47	95	99
46	93	99
45	91	95
44	90	99
43	88	98
42	86	97
41	84	94
40	82	92
39	81	90
38	79	88
37	77	86
36	75	83
35	72	79
34	72	74
33	70	69
32	68	65
31	66	60
30	64	55
29	63	49
28	61	44
27	59	39
26	57	33
25	55	29
24	54	24
23	52	20
22	50	17
21	48	15
20	47	13
19	45	11
18	43	9
17	41	7
16	39	6
15	38	5
14	36	3
13	34	2
12	32	2
11	30	1
10	29	1
9	27	1
8	25	1
7	23	1
6	21	1
5	20	1
4	18	1
3	16	1
2	14	1
1	12	1
0	11	1

Table B21.

CLERICAL ADMINISTRATIVE COMPOSITE (CL): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
58	110	99
57	110	99
56	110	99
55	110	99
54	110	99
53	110	99
52	110	99
51	109	95
50	107	99
49	105	95
48	103	99
47	101	99
46	99	95
45	97	99
44	95	95
43	93	98
42	91	96
41	89	96
40	87	95
39	85	93
38	83	91
37	81	89
36	79	86
35	77	82
34	75	78
33	73	74
32	71	69
31	69	64
30	67	59
29	65	54
28	63	49
27	61	44
26	59	38
25	57	34
24	55	29
23	53	26
22	51	22
21	49	19
20	48	16
19	46	14
18	44	12
17	42	10
16	40	9
15	38	7
14	36	5
13	34	4
12	32	3
11	30	2
10	28	2
9	26	1
8	24	1
7	22	1
6	20	1
5	18	1
4	16	1
3	14	1
2	12	1
1	10	1
0	8	1

Table B22. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

2	5	PERCENTILE
50+	50+	99+
49+	50+	99+
48+	50+	99+
47+	50+	99+
46+	49+	99+
45+	48+	99+
44+	47+	99+
43+	46+	99+
42+	45+	98+
41+	44+	97+
40+	43+	96+
39+	42+	95+
38+	41+	94+
37+	40+	94+
36+	39+	93+
35+	38+	92+
34+	37+	89+
33+	36+	87+
32+	36+	84+
31+	35+	83+
30+	34+	81+
29+	33+	79+
28+	32+	75+
27+	31+	71+
26+	30+	67+
25+	29+	62+
24+	28+	58+
23+	27+	54+
22+	26+	51+
21+	25+	47+
20+	24+	44+
19+	23+	41+
18+	22+	37+
17+	21+	32+
16+	21+	29+
15+	20+	27+
14+	19+	24+
13+	18+	21+
12+	17+	18+
11+	16+	16+
10+	15+	15+
9+	14+	13+
8+	13+	10+
7+	12+	9+
6+	11+	7+
5+	10+	6+
4+	9+	5+
3+	8+	5+
2+	7+	4+
1+	7+	3+
0+	6+	1+

Table B23. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

2	5	PERCENTILE
50.	50.	99.
49.	50.	99.
48.	49.	99.
47.	48.	99.
46.	47.	99.
45.	46.	99.
44.	45.	99.
43.	44.	99.
42.	43.	99.
41.	42.	99.
40.	42.	99.
39.	41.	99.
38.	40.	98.
37.	39.	98.
36.	38.	97.
35.	37.	97.
34.	36.	95.
33.	35.	93.
32.	34.	90.
31.	33.	88.
30.	33.	87.
29.	32.	85.
28.	31.	82.
27.	30.	80.
26.	29.	76.
25.	28.	72.
24.	27.	68.
23.	26.	66.
22.	25.	63.
21.	24.	59.
20.	24.	56.
19.	23.	51.
18.	22.	47.
17.	21.	43.
16.	20.	39.
15.	19.	35.
14.	18.	29.
13.	17.	24.
12.	16.	21.
11.	16.	18.
10.	15.	15.
9.	14.	13.
8.	13.	11.
7.	12.	10.
6.	11.	8.
5.	10.	6.
4.	9.	5.
3.	8.	4.
2.	7.	3.
1.	7.	2.
0.	6.	1.

Table B24. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

2	5	PERCENTILE
50.	50.	99.
49.	50.	99.
48.	50.	99.
47.	49.	99.
46.	48.	99.
45.	48.	98.
44.	47.	98.
43.	46.	97.
42.	45.	97.
41.	44.	95.
40.	43.	92.
39.	42.	90.
38.	41.	88.
37.	40.	85.
36.	39.	82.
35.	39.	78.
34.	38.	74.
33.	37.	70.
32.	36.	67.
31.	35.	65.
30.	34.	61.
29.	33.	57.
28.	32.	53.
27.	31.	50.
26.	30.	46.
25.	30.	43.
24.	29.	38.
23.	28.	34.
22.	27.	31.
21.	26.	27.
20.	25.	24.
19.	24.	22.
18.	23.	18.
17.	22.	14.
16.	22.	13.
15.	21.	11.
14.	20.	10.
13.	19.	9.
12.	18.	8.
11.	17.	8..
10.	16.	6.
9.	15.	5.
8.	14.	4.
7.	13.	4.
6.	13.	3.
5.	12.	2.
4.	11.	1.
3.	10.	1.
2.	9.	1.
1.	8.	1.
0.	7.	1.

Table B25. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

2	5	PERCENTILE
50.	50.	99.
49.	50.	99.
48.	50.	99.
47.	50.	99.
46.	49.	99.
45.	48.	99.
44.	47.	99.
43.	46.	99.
42.	45.	99.
41.	44.	98.
40.	43.	97.
39.	42.	96.
38.	41.	94.
37.	40.	92.
36.	39.	90.
35.	38.	88.
34.	38.	86.
33.	37.	84.
32.	36.	82.
31.	35.	79.
30.	34.	76.
29.	33.	74.
28.	32.	71.
27.	31.	68.
26.	30.	64.
25.	29.	59.
24.	28.	54.
23.	27.	49.
22.	26.	44.
21.	25.	39.
20.	24.	35.
19.	23.	32.
18.	22.	28.
17.	21.	25.
16.	20.	23.
15.	19.	21.
14.	19.	18.
13.	18.	15.
12.	17.	13.
11.	16.	11.
10.	15.	9.
9.	14.	7.
8.	13.	6.
7.	12.	5.
6.	11.	4.
5.	10.	2.
4.	9.	2.
3.	8.	1.
2.	7.	1.
1.	6.	1.
0.	5.	1.

Table B26. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

2	5	PERCENTILE
50.	50.	99.
49.	50.	99.
48.	50.	99.
47.	50.	99.
46.	50.	99.
45.	49.	99.
44.	48.	98.
43.	47.	97.
42.	46.	96.
41.	45.	94.
40.	44.	94.
39.	43.	93.
38.	42.	91.
37.	41.	90.
36.	40.	88.
35.	39.	86.
34.	38.	82.
33.	37.	77.
32.	36.	74.
31.	35.	71.
30.	34.	67.
29.	33.	63.
28.	32.	60.
27.	31.	57.
26.	30.	52.
25.	29.	47.
24.	28.	43.
23.	27.	38.
22.	26.	35.
21.	25.	32.
20.	24.	28.
19.	23.	24.
18.	22.	20.
17.	21.	18.
16.	20.	16.
15.	19.	15.
14.	18.	13.
13.	18.	11.
12.	17.	10.
11.	16.	8.
10.	15.	6.
9.	14.	6.
8.	13.	4.
7.	12.	3.
6.	11.	2.
5.	10.	2.
4.	9.	1.
3.	8.	1.
2.	7.	1.
1.	6.	1.
0.	5.	1.

Table B27. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

2	5	PERCENTILE
50+	50+	99+
49+	50+	99+
48+	50+	99+
47+	50+	99+
46+	49+	99+
45+	48+	99+
44+	47+	99+
43+	46+	99+
42+	46+	99+
41+	44+	98+
40+	43+	97+
39+	43+	96+
38+	42+	95+
37+	41+	94+
36+	40+	93+
35+	39+	92+
34+	38+	90+
33+	37+	87+
32+	36+	84+
31+	35+	82+
30+	34+	80+
29+	33+	79+
28+	32+	76+
27+	31+	72+
26+	30+	68+
25+	29+	64+
24+	28+	59+
23+	27+	55+
22+	26+	52+
21+	25+	48+
20+	24+	44+
19+	23+	40+
18+	22+	36+
17+	22+	32+
16+	21+	28+
15+	20+	24+
14+	19+	20+
13+	18+	16+
12+	17+	13+
11+	16+	12+
10+	15+	10+
9+	14+	8+
8+	13+	6+
7+	12+	5+
6+	11+	4+
5+	10+	3+
4+	9+	2+
3+	8+	2+
2+	7+	1+
1+	6+	1+
0+	5+	1+

Table B28. GENERAL TECHNICAL COMPOSITE (GT): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

2	5	PERCENTILE
50+	50+	99+
49+	50+	99+
48+	50+	99+
47+	50+	99+
46+	49+	99+
45+	48+	99+
44+	47+	99+
43+	46+	99+
42+	45+	98+
41+	44+	97+
40+	43+	96+
39+	42+	95+
38+	41+	93+
37+	40+	92+
36+	39+	90+
35+	39+	88+
34+	38+	86+
33+	37+	83+
32+	36+	80+
31+	35+	78+
30+	34+	75+
29+	33+	72+
28+	32+	70+
27+	31+	66+
26+	30+	62+
25+	29+	58+
24+	28+	53+
23+	27+	49+
22+	26+	46+
21+	25+	41+
20+	24+	38+
19+	23+	35+
18+	22+	31+
17+	22+	27+
16+	21+	24+
15+	20+	22+
14+	19+	19+
13+	18+	16+
12+	17+	14+
11+	16+	12+
10+	15+	10+
9+	14+	8+
8+	13+	7+
7+	12+	6+
6+	11+	5+
5+	10+	3+
4+	9+	3+
3+	8+	2+
2+	7+	2+
1+	6+	1+
0+	6+	1+

Table B29. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	36+	31+	54+
74+	60+	99+	35+	30+	52+
73+	60+	99+	34+	30+	50+
72+	59+	99+	33+	29+	47+
71+	58+	99+	32+	28+	45+
70+	57+	99+	31+	27+	43+
69+	57+	99+	30+	27+	40+
68+	56+	99+	29+	26+	38+
67+	55+	99+	28+	25+	32+
66+	54+	99+	27+	24+	29+
65+	53+	99+	26+	23+	27+
64+	53+	99+	25+	23+	25+
63+	52+	99+	24+	22+	23+
62+	51+	98+	23+	21+	21+
61+	50+	98+	22+	20+	18+
60+	50+	95+	21+	20+	16+
59+	49+	97+	20+	19+	14+
58+	48+	97+	19+	18+	12+
57+	47+	96+	18+	17+	11+
56+	47+	95+	17+	17+	10+
55+	46+	94+	16+	16+	8+
54+	45+	92+	15+	15+	7+
53+	44+	91+	14+	14+	7+
52+	43+	90+	13+	13+	6+
51+	43+	89+	12+	13+	6+
50+	42+	85+	11+	12+	6+
49+	41+	86+	10+	11+	5+
48+	40+	84+	9+	10+	5+
47+	40+	82+	8+	10+	4+
46+	39+	80+	7+	9+	3+
45+	38+	78+	6+	8+	3+
44+	37+	77+	5+	7+	2+
43+	37+	75+	4+	7+	2+
42+	36+	72+	3+	6+	2+
41+	35+	69+	2+	5+	2+
40+	34+	67+	1+	4+	1+
39+	33+	64+	0+	3+	1+
38+	33+	60+			
37+	32+	56+			

Table B30. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 10 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75.	60.	99.	34.	34.	92.
74.	60.	99.	33.	33.	89.
73.	60.	99.	32.	32.	87.
72.	60.	99.	31.	31.	84.
71.	60.	99.	30.	31.	79.
70.	60.	99.	29.	30.	76.
69.	60.	99.	28.	29.	73.
68.	60.	99.	27.	28.	69.
67.	60.	98.	26.	27.	66.
66.	59.	98.	25.	27.	64.
65.	58.	98.	24.	26.	59.
64.	57.	98.	23.	25.	53.
63.	56.	98.	22.	24.	48.
62.	55.	98.	21.	23.	43.
61.	55.	98.	20.	22.	40.
60.	54.	98.	19.	22.	37.
59.	53.	98.	18.	21.	35.
58.	52.	98.	17.	20.	33.
57.	51.	98.	16.	19.	30.
56.	51.	95.	15.	18.	28.
55.	50.	95.	14.	17.	25.
54.	49.	95.	13.	17.	22.
53.	48.	95.	12.	16.	19.
52.	47.	95.	11.	15.	16.
51.	46.	95.	10.	14.	13.
50.	46.	95.	9.	13.	11.
49.	45.	95.	8.	12.	9.
48.	44.	95.	7.	12.	7.
47.	43.	95.	6.	11.	6.
46.	42.	95.	5.	10.	5.
45.	41.	95.	4.	9.	4.
44.	41.	95.	3.	8.	3.
43.	40.	95.	2.	7.	2.
42.	39.	95.	1.	7.	2.
41.	38.	98.	0.	6.	1.
40.	37.	98.		5.	1.
39.	36.	97.		4.	1.
38.	36.	96.			
37.	35.	95.			

Table B31. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	36+	31+	34+
74+	60+	99+	35+	30+	31+
73+	60+	99+	34+	29+	28+
72+	59+	99+	33+	29+	25+
71+	58+	99+	32+	28+	23+
70+	58+	99+	31+	27+	20+
69+	57+	99+	30+	26+	18+
68+	56+	99+	29+	25+	16+
67+	55+	99+	28+	25+	14+
66+	54+	98+	27+	24+	13+
65+	54+	98+	26+	23+	12+
64+	53+	97+	25+	22+	11+
63+	52+	96+	24+	22+	10+
62+	51+	95+	23+	21+	8+
61+	50+	95+	22+	20+	7+
60+	50+	94+	21+	19+	6+
59+	49+	94+	20+	18+	5+
58+	48+	93+	19+	18+	4+
57+	47+	91+	18+	17+	4+
56+	47+	89+	17+	16+	4+
55+	46+	88+	16+	15+	3+
54+	45+	86+	15+	14+	3+
53+	44+	84+	14+	14+	2+
52+	43+	82+	13+	13+	2+
51+	43+	80+	12+	12+	2+
50+	42+	78+	11+	11+	2+
49+	41+	75+	10+	11+	2+
48+	40+	73+	9+	10+	2+
47+	40+	71+	8+	9+	2+
46+	39+	68+	7+	8+	1+
45+	38+	64+	6+	7+	1+
44+	37+	60+	5+	7+	1+
43+	36+	57+	4+	6+	1+
42+	36+	55+	3+	5+	1+
41+	35+	52+	2+	4+	1+
40+	34+	50+	1+	4+	1+
39+	33+	48+	0+	3+	1+
38+	32+	44+			
37+	32+	39+			

Table B32. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 11 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	36+	33+	85+
74+	60+	99+	35+	32+	83+
73+	60+	99+	34+	31+	80+
72+	60+	99+	33+	31+	76+
71+	60+	99+	32+	30+	73+
70+	60+	99+	31+	29+	70+
69+	59+	99+	30+	28+	66+
68+	58+	95+	29+	27+	62+
67+	57+	99+	28+	27+	58+
66+	57+	99+	27+	26+	53+
65+	56+	99+	26+	25+	49+
64+	55+	99+	25+	24+	44+
63+	54+	99+	24+	24+	40+
62+	53+	99+	23+	23+	36+
61+	53+	99+	22+	22+	33+
60+	52+	99+	21+	21+	30+
59+	51+	99+	20+	20+	26+
58+	50+	99+	19+	20+	22+
57+	50+	99+	18+	19+	20+
56+	49+	99+	17+	18+	16+
55+	48+	99+	16+	17+	13+
54+	47+	99+	15+	16+	12+
53+	46+	99+	14+	16+	11+
52+	46+	99+	13+	15+	8+
51+	45+	98+	12+	14+	6+
50+	44+	98+	11+	13+	5+
49+	43+	98+	10+	13+	5+
48+	42+	98+	9+	12+	4+
47+	42+	97+	8+	11+	3+
46+	41+	97+	7+	10+	2+
45+	40+	97+	6+	9+	2+
44+	39+	96+	5+	9+	1+
43+	38+	95+	4+	8+	1+
42+	38+	94+	3+	7+	1+
41+	37+	93+	2+	6+	1+
40+	36+	92+	1+	6+	1+
39+	35+	91+	0+	6+	1+
38+	35+	90+			
37+	34+	88+			

Table B33. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 MALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75.	60.	99.	36.	30.	41.
74.	60.	99.	35.	29.	38.
73.	60.	99.	34.	28.	36.
72.	59.	99.	33.	27.	33.
71.	59.	99.	32.	26.	30.
70.	58.	99.	31.	25.	26.
69.	57.	99.	30.	25.	22.
68.	56.	99.	29.	24.	19.
67.	55.	99.	28.	23.	16.
66.	54.	99.	27.	22.	15.
65.	54.	99.	26.	21.	14.
64.	53.	98.	25.	21.	12.
63.	52.	97.	24.	20.	11.
62.	51.	97.	23.	19.	10.
61.	50.	96.	22.	18.	9.
60.	49.	95.	21.	17.	8.
59.	49.	94.	20.	16.	7.
58.	48.	93.	19.	16.	7.
57.	47.	92.	18.	15.	6.
56.	46.	91.	17.	14.	5.
55.	45.	89.	16.	13.	5.
54.	45.	88.	15.	12.	5.
53.	44.	85.	14.	11.	4.
52.	43.	84.	13.	11.	4.
51.	42.	82.	12.	10.	3.
50.	41.	81.	11.	9.	3.
49.	40.	79.	10.	8.	2.
48.	40.	77.	9.	7.	2.
47.	39.	75.	8.	6.	2.
46.	38.	73.	7.	6.	2.
45.	37.	71.	6.	5.	2.
44.	36.	67.	5.	4.	1.
43.	35.	63.	4.	3.	1.
42.	35.	60.	3.	2.	1.
41.	34.	57.	2.	2.	1.
40.	33.	54.	1.	0.	1.
39.	32.	51.	0.	-0.	1.
38.	31.	49.			
37.	30.	45.			

Table B34. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADE 12 FEMALES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
76.	60.	99.	36.	32.	86.
74.	59.	99.	35.	31.	84.
73.	59.	99.	34.	30.	82.
72.	58.	99.	33.	29.	79.
71.	57.	99.	32.	29.	75.
70.	56.	99.	31.	28.	73.
69.	56.	99.	30.	27.	72.
68.	55.	99.	29.	27.	69.
67.	54.	99.	28.	26.	65.
66.	54.	99.	27.	25.	62.
65.	53.	99.	26.	24.	57.
64.	52.	99.	25.	24.	52.
63.	51.	99.	24.	23.	47.
62.	51.	99.	23.	22.	43.
61.	50.	99.	22.	21.	38.
60.	49.	99.	21.	21.	33.
59.	48.	99.	20.	20.	28.
58.	48.	99.	19.	19.	25.
57.	47.	99.	18.	19.	23.
56.	46.	99.	17.	18.	21.
55.	45.	99.	16.	17.	19.
54.	45.	99.	15.	16.	16.
53.	44.	99.	14.	16.	14.
52.	43.	99.	13.	15.	13.
51.	43.	99.	12.	14.	11.
50.	42.	99.	11.	13.	10.
49.	41.	99.	10.	13.	8.
48.	40.	99.	9.	12.	7.
47.	40.	98.	8.	11.	6.
46.	39.	98.	7.	11.	6.
45.	38.	97.	6.	10.	5.
44.	37.	97.	5.	9.	4.
43.	37.	96.	4.	8.	4.
42.	36.	95.	3.	8.	4.
41.	35.	94.	2.	7.	3.
40.	35.	92.	1.	6.	2.
39.	34.	91.	0.	6.	1.
38.	33.	90.			
37.	32.	88.			

Table B35. MOTOR MECHANICS COMPOSITE (MM): EQUIPERCENTILES FOR FORMS 2 and 5 - GRADES 10-12, BOTH SEXES

Form 2	Form 5	Percentile	Form 2	Form 5	Percentile
75+	60+	99+	36+	32+	67+
74+	60+	99+	35+	31+	65+
73+	60+	99+	34+	30+	62+
72+	60+	99+	33+	30+	59+
71+	59+	99+	32+	29+	56+
70+	58+	99+	31+	28+	53+
69+	57+	99+	30+	27+	50+
68+	57+	99+	29+	26+	47+
67+	56+	95+	28+	26+	43+
66+	56+	93+	27+	25+	41+
65+	54+	99+	26+	24+	37+
64+	54+	99+	25+	23+	34+
63+	53+	99+	24+	23+	31+
62+	52+	99+	23+	22+	28+
61+	51+	98+	22+	21+	25+
60+	50+	98+	21+	20+	22+
59+	50+	98+	20+	19+	20+
58+	49+	97+	19+	19+	18+
57+	48+	97+	18+	18+	16+
56+	47+	96+	17+	17+	14+
55+	47+	95+	16+	16+	12+
54+	46+	95+	15+	16+	11+
53+	46+	94+	14+	15+	10+
52+	44+	93+	13+	14+	8+
51+	44+	92+	12+	13+	7+
50+	43+	91+	11+	12+	6+
49+	42+	90+	10+	12+	5+
48+	41+	89+	9+	11+	4+
47+	40+	88+	8+	10+	4+
46+	40+	87+	7+	9+	3+
45+	39+	85+	6+	9+	3+
44+	38+	84+	5+	8+	2+
43+	37+	82+	4+	7+	2+
42+	37+	80+	3+	6+	2+
41+	36+	79+	2+	6+	1+
40+	35+	77+	1+	6+	1+
39+	34+	75+	0+	4+	1+
38+	33+	73+			
37+	33+	70+			

APPENDIX C

PARTICIPATING U.S. HIGH SCHOOLS
RANKED BY SIZE OF ENROLLMENT

NAME	STATE	ENROLLMENT	STUDENTS TESTED*
Philadelphia: Olney H.S.	PA	4,472	26
Miami: Carol City H.S.	FL	3,947	59
Pittsburgh: North Hills H.S.	PA	3,276	47
Trenton: Central H.S.	NJ	3,001	21
Detroit: Ford H.S.	MI	2,937	43
Los Angeles: Belmont H.S.	CA	2,915	37
Denver: Lincoln H.S.	CO	2,722	62
Los Angeles: Alexander Hamilton H.S.	CA	2,395	41
Detroit: M. L. King H.S.	MI	2,237	38
Miami: Northwestern H.S.	FL	2,141	54
Washington, D.C.: Eastern H.S.	DC	2,129	84
El Toro H.S.	CA	1,890	91
Bear Creek H.S.	CO	1,875	11
Philadelphia: Mastbaum Voc. Tech.	PA	1,658	25
Philadelphia: Kensington H.S.	PA	1,656	29
Farmington H.S.	MI	1,636	93
Bartlett H.S.	TN	1,629	238
Pawtucket H.S.	RI	1,445	29
Kansas City: Paseo H.S.	MO	1,409	112
Kansas City: Manuel H.S.	MO	1,388	118
Kansas City: Lincoln H.S.	MO	1,316	150
Washington, D.C.: Springart H.S.	DC	1,192	23
Boston H.S.	MA	636	98
San Antonio: South Side H.S.	TX	600	119
San Antonio: St. Francis Academy	TX	278	174
San Antonio: SANYO	TX	172	76
LaVernia H.S.	TX	160	99
Greater Miami Academy	FL	85	55

*Numbers listed are for those completing both ASVAB Form 2 and Form 5 tests.

SHORT DESCRIPTIONS OF TESTS

ASVAB FORM 2

TESTS IN THE ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB)

1. Coding Speed test (CS). In this test there is a key and 100 items. The key is a group of words with a code number for each word. Each item presents one word for which the examinee indicates the code number.

2. Word Knowledge (WK). Each item requires the examinee to select the correct synonym for a specific word.

3. Arithmetic Reasoning (AR). Each item is a reasoning problem involving application of the arithmetic process.

4. Tool Knowledge (TK). Each item presents five drawings of various tools or shop equipment. The examinee indicates which of the four alternative drawings goes best with the lead drawing.

5. Space Perception (SP). Each item consists of five drawings: a pattern and four boxes. The question to be answered is which one of the boxes can be made by folding the pattern.

6. Automotive Information (AI). Each item asks a question about the identification or operation of automobile parts.

7. Shop Information (SI). This test has questions about shop practices and the use of tools. Many of the items contain drawings.

8. Mechanical Comprehension (MC). Each item includes a drawing, or drawings, illustrating some physical principle and a question.

9. Electronic Information (EI). This test has questions about elementary principles of electricity and about electrical/electronic devices, drawings, and equipment.

12 SUB-TESTS IN ASVAB FORM 5

1. Arithmetic Reasoning (AR)
   Multiple choice questions about everyday arithmetic problems and reasoning processes, including prices, salaries, premiums, ages and schoolwork.

2. Electronics Information (EI)
   Multiple choice questions about elementary principles of electricity and about electrical/electronic devices, drawings and equipment used in everyday life.

3. Space Perception (SP)
   Ability test requiring the 3 dimension potential examination of five drawings: a pattern and four boxes. The question to be answered is which one of the boxes can be made by folding the pattern.

4. Automotive Information (AI)
   Multiple choice questions about parts of automobiles, their operation, and when repairs are needed. Requires some understanding of technical terms and names of components.

5. Mechanical Comprehension (MC)
   Multiple choice items, mostly including diagrams, which serve to illustrate the physical principles by which well-known devices and structures operate.

6. Shop Information (SI)
   Multiple choice items about tools, repairs, maintenance and common workshop tasks.

7. Word Knowledge (WK)
   Multiple choice questions requiring the selection of words having the same meaning and sense as a given single noun, verb, adjective or adverb.

8. Attention to Detail (AD)
   Speed test of ability to find an important detail in 30 similar letter layouts.

9. Numerical Operations (NO)
   Speed and accuracy test using 50 simple multiple choice questions in arithmetic.

10. Mathematics Knowledge (MK)
    Multiple choice questions on general mathematics problems including simple algegra and geometry.

12 SUB-TESTS IN ASVAB FORM 5 (Cont.)

11. Science Knowledge (SK)

Multiple choice items about simple biology, chemistry, physics, physiology and space science.

12. General Information (GI)

Multiple choice questions on a variety of geographic, sports, military, and common knowledge topics.

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