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ABSTRACT

This report summarizes test performance for 771,031 students tested on Armed Services Vocational Aptitude Battery (ASVAB) Form 2 during school year 1973-74, with separate normative tables provided by sub-test, aptitude composite, grade, sex and geographic region. New data are provided for ninth grade and post-high school students. Information contained in the tables parallels percentile scores reported for individual students to be tested with ASVAB in school year 1974-75. Percentile tables in the present report are designed for use by high school counselors as an interpretative guide and a supplemental reference to the AFVTG computer printout of student test scores. Users are cautioned that 1974-75 represents the first time ASVAB percentile scores are to be computed around empirically developed student norms rather than representative service derived mobilization population samples. As such, the data are not representative of the total available high school population, but do characterize actual test performance of students examined during the preceding year's test cycle. Additionally, where individual test score comparisons from one year to the next may be required, the 1974-75 ASVAB percentile reports will represent different levels of student performance over previous reports (i.e., prior to September 1974). (Author/RC)

TECHNICAL RESEARCH NOTE 74-3

PERCENTILE NORMATIVE TABLES FOR THE ARMED SERVICES VOCATIONAL APTITUDE BATTERY (1973-74 SCHOOL YEAR DATA BASE)

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Armed Forces Vocational Testing Group Technical Research Reports and Technical Research Notes are developed for primary use and reference by secondary school counselors and Department of Defense Armed Services Vocational Aptitude Battery (ASVAB) test administrators and educational specialists. This report is presented in a format to facilitate ready interpretation and use on the part of counselors and field testing and educator personnel. Conclusions and recommendations are solely those of the primary authors and in no way represent either official policy of the military services or the Department of Defense.

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A previous report (Wilfong and Armstrong, 1974) summarized empirical norms for 870,000 students tested on the Armed Services Vocational Aptitude Battery (ASVAB) Form 1, during school year 1972-73. The current report summarizes test performance for 771,031 students tested on ASVAB Form 2 during school year 1973-74, with separate normative tables provided by sub-test, aptitude composite, grade, sex and geographic region. New data are provided for ninth grade and post-high school students.

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PREFACE

A primary responsibility of the Research Division, Armed Forces Vocational Testing Group, is the publication and distribution of interpretative data associated with administration of the Armed Services Vocational Aptitude Battery (ASVAB). Data contained in the tables of this report summarize test results for 771,031 students tested on ASVAB, Form 2 only, during school year 1973-74. These tables are designed as a basic supplement to the technical appendix contained in the High School Counselor's Manual (DOD 1304.12X, 1973-74 edition).

Data contained in this report are intended for release to and application by high school ASVAB users. Normative data contained herein parallel individual student test results, reported in percentiles, as printed on the counselor's copy of the ASVAB computer printout for school year 1974-75.

The tabular information contained in this research note has been extracted from the ASVAB historical tapes maintained by the Computational Sciences Division, Air Force Human Resources Laboratory, AFSC, Lackland Air Force Base, Texas.

This technical research note has been conducted as a subpart of AFVTG research project unit 100, under guidelines prescribed through Department of Defense Instruction 1304.12 (December 1972).

ABSTRACT

A previous report (Wilfong and Armstrong, 1974) summarized empirical norms for 870,000 students tested on the Armed Services Vocational Aptitude Battery (ASVAB) Form 1, during school year 1972-73. The current report summarizes test performance for 771,031 students tested on ASVAB Form 2 during school year 1973-74, with separate normative tables provided by subtest, aptitude composite, grade, sex, and geographic region. New data are provided for ninth grade and post-high school students.

Information contained in the tables parallel percentile scores reported for individual students to be tested with ASVAB in school year 1974-75. Percentile tables in the present report are designed for use by high school counselors as an interpretative guide and a supplemental reference to the AFVTG computer printout of student test scores.

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PERCENTILE NORMATIVE TABLES FOR THE ARMED SERVICES VOCATIONAL APTITUDE BATTERY (1973-74 SCHOOL YEAR DATA BASE)

I. INTRODUCTION AND BACKGROUND

The initial standardization sample used in computation of norms for the Armed Services Vocational Aptitude Battery (ASVAB) as described in Bayroff and Fuchs (1970) has been used as a basis for percentile conversions of raw score data from 1968 through school year (SY) 1972-73. During this same time frame, the version of the battery used operationally in the Department of Defense High School Testing Program was ASVAB-Form 1. A description of each of the nine subtests (i.e., aptitude scales) comprising the battery is summarized in Appendix 1.

Form 2 of the ASVAB was introduced into the high school testing program in September 1973, and was the basic battery in use during SY 1973-74. The primary objective of this report is to summarize reference statistics, in tabular format, on Form 2 of the ASVAB based on actual student samples tested during SY 1973-74.

A. Contrast between Forms 1 and 2, ASVAB. Based primarily on research findings using unrestricted samples of Navy recruits (Thomas, 1970), items for inclusion in Form 2 - as extracted from pre-existing item pools - were selected around a decreased level of difficulty

Table 1

DISTRIBUTION OF P VALUES FOR ASVAB, FORM 1, FOR AN UNRESTRICTED SAMPLE OF NAVY RECRUITS (N = 2,274) *a

Sub-test	Number of Items by Value Range								Mean p Value
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	
WK	1	1			2	2	9	10	.82
AR		2	4	1	5	3	4	6	.71
TK		3	5		2	3	4	8	.73
SP	1	5	1		2	4	7	5	.70
MC	1	3		3	5	2	4	7	.70
SI		4	3	3	2	2	2	9	.69
AI	1	1	4	4	3	3	6	3	.67
EI	1	3	4		1	3	6	7	.69
TOTAL	5	22	21	11	22	22	42	55	.71

*a Adopted from Thomas, P. J. Naval Personnel and Training Research Laboratory, San Diego, California, January 1970.

(i.e., p-values) in relationship to Form 1. Ranges of p-values represented in the Form 1 version of the battery are shown in Table 1.

There are two subtests in Form 2 where the revised difficulty levels as recommended by Pat Thomas (1970) were not applied: Coding Speed (CS), because of its speeded nature renders establishment of individual item p-values unnecessary, and/ the difficulty level of the Word Knowledge (WK) subtest was, conversely, increased to improve both usable test variance and face validity.

It is essential that the ASVAB user understand the underlying nature of these differences between the two forms of the battery because year-to-year normative scales and individual scores change accordingly. In both cases, the content of the scales (viz. aptitude dimensions measured) and the scoring formulae (Rights minus 1/3 Wrongs except for the Coding Speed subtest) remained constant.

B. **Computation of Composite Percentiles.** An additional administrative change was affected to the computerized scoring routine which also had a definite, but limited, impact upon ASVAB score distributions between SY 1973-74 and SY 1974-75. Due to the availability of empirical norms of actual student performance by grade, computation of percentiles for reporting to counselors and students was modified to an actual percentile equation system - by grade and sex - *built around the tables shown in this research note.* Table 2 shows composite computational formulae previously used during SY 1973-74 and earlier, and the new formulae, implemented in September 1974 for comparative purposes. The statistical impact of application of the new equations is to slightly compress each distribution around the mean (when compared to compositing formulae applied before September 1974).

Table 2

HIGH SCHOOL APTITUDE CONVERSION FORMULAS

Composite	SY 1973-74	SY 1974 +
(EL) Electronics	$\frac{2EI(\%) + MC(\%)}{3}$	2EI + MC
(GM) General Mechanical	$\frac{2SI(\%) + SP(\%)}{3}$	2SI + SP
(MM) Motor Mechanical	$\frac{2AI(\%) + MC(\%)}{3}$	2AI + MC
(CL) Clerical	$\frac{WK(\%) + CS(\%)}{2}$	$WK + \frac{CS}{3}$
(GT) General-Technical	$\frac{WK(\%) + AR(\%)}{2}$	WK + AR

II. METHOD OF SAMPLING

Since the decision was made to build reporting percentiles around empirical norms established for each preceding school year; by definition, the sampling population consisted of all students tested on ASVAB. In turn, the school in which ASVAB was administered became the individual sampling unit. Conditions under which the ASVAB was administered varied from school to school as follows: required testing of all students, grades nine through 12; testing of only seniors interested in vocational careers; voluntary testing of only those students interested in pursuing a military career; or testing of male seniors only. The most frequently occurring, and the preferred mode of administration was testing of all students, male and female, in grades 10 and 12; with the senior administration representing a retesting of sophomores previously examined with the battery.

As a result of these differing modes of testing, few, if any, inferences can be drawn concerning the level of individual student motivation to perform at optimum levels on the battery. It is known that value of the results to the individual is strongly stressed during the standardized ASVAB test administration instructions and participation on the part of each student is strictly voluntary in accordance with Department of Defense policy.

The distribution of sampling units (i.e., schools) and students tested by grade by state are shown in Table 3.

Table 3

NUMBER SCHOOLS (SAMPLING UNITS) AND STUDENTS TESTED BY GRADE - ASVAB, FORM 2, SY 1973-74

State	Number Schools	Grade of Students 09	10	11	12	12+	Total *a
Alaska	22	37	130	371	492	3	(1058)
Alabama	362	49	85	1104	24991	222	(24991)
Arkansas	166	0	185	924	4617	93	(6157)
Arizona	81	809	1037	1452	2956	7	(6562)
California	736	4061	10046	17306	22366	388	(56646)
Colorado	152	633	2652	2805	3032	19	(9589)
Connecticut	153	2310	4923	5285	5892	27	(18653)
District of Columbia	16	164	322	458	875	8	(1911)
Delaware	24	360	317	1028	911	3	(2662)
Florida	317	1456	9959	9276	17975	223	(39344)
Georgia	312	8717	2700	5255	19432	1266	(39526)

Hawaii	22	0	36	354	1130	2	(1559)
Iowa	380	883	1628	3161	6231	31	(12208)
Idaho	90	267	1140	1225	2994	33	(5852)
Illinois	574	2531	9097	12333	20754	135	(46129)
Indiana	283	3901	9507	10298	12645	122	(37772)
Kansas	105	[illegible]	[illegible]	939	1835	14	(3081)
Kentucky	217	[illegible]	4046	3599	13014	130	(22203)
Louisiana	187	109	1057	3407	8066	160	(13383)
Massachusetts	224	3052	4594	6263	9087	160	(24288)
Maryland	130	233	2718	3893	5890	93	(13621)
Maine	100	277	1314	2613	2054	35	(6503)
Michigan	283	812	3686	6584	10777	95	(22812)
Minnesota	316	3	1389	3599	5690	66	(11279)
Missouri	253	931	4490	7388	10366	45	(23795)
Mississippi	143	44	401	1612	6297	38	(9133)
Montana	118	232	172	1364	2234	8	(4129)
North Carolina	204	1681	2786	3440	13312	74	(22029)
North Dakota	179	28	174	2311	3400	19	(6275)
Nebraska	269	778	3065	2872	5537	73	(12825)
New Hampshire	78	526	2500	1832	1452	9	(6751)
New Jersey	237	1367	4011	6223	9669	132	(22339)
New Mexico	50	433	1665	924	1687	4	(4779)
Nevada	43	502	2645	821	[illegible]	2	(4816)
New York	693	2499	7973	15809	13495	166	(41277)
Ohio	477	3585	5970	9795	19858	139	(41467)
Oklahoma	108	31	1224	1224	4252	21	(7056)
Oregon	143	476	996	2319	3114	10	(7204)

Pennsylvania	576	7835	10937	13451	31459	194	(66323)
Rhode Island	32	4	1363	403	1351	8	(3225)
South Carolina	196	722	1147	2863	10643	193	(16593)
South Dakota	111	33	758	1442	2197	5	(4586)
Tennessee	156	518	465	1819	11923	123	(15325)
Texas	474	4265	11016	10334	21937	728	(50117)
Utah	70	68	790	1376	1998	37	(4410)
Virginia	223	129	3731	4411	13461	364	(22878)
Virgin Islands	2	0	1	253	199	2	(455)
Vermont	60	11	1507	598	917	3	(3139)
Washington	264	57	1223	4987	8700	59	(15394)
Wisconsin	158	163	745	2306	3426	57	(6824)
West Virginia	151	1388	4490	2593	6759	41	(15829)
Wyoming	41	77	98	593	1041	8	(1875)
Puerto Rico	22	0	2	149	574	70	(802)
TOTAL	10783	59426	148607	209045	415730	5986	(872493)

*a Total row values are not summation of individual grades but include students tested whodid not indicate grade on the ASVAB answer card. Refer to footnote 1 for a detailed description of reasons for the difference between total students tested on ASVAB-2 (N= 872,493) and the 771,031 cases used in the sample(s).

During SY 1973-74, a total of 1,100,248 students were tested on both Forms (1 and 2) of the battery. Of this number, 872,493 (89.3%) were tested on Form 2. Of the students tested on Form 2, 476,017 (or 54.55 percent) were males.

Although test norms are reported for students in a post-high school status (the 12 + column in Table 3), caution must be exercised in generalizing these data to any nation-wide populations. A standard part of the ASVAB test administration instructions directs students to code the *last grade completed* on the answer card as the indicator of current grade level and some of the responses coded at the post-secondary level may represent

Table 4

NATION-WIDE TEST PERFORMANCE, STUDENTS TESTED ON FORM 1 (SY 1972-73) vs FORM 2 (SY 1973-74)

Subtest	Form 1 (72-73) N*a	Mean	SD	Form 2 (73-74) N	Mean	SD
Coding Speed	873626	48.56	15.02	771031	48.55	14.05
Word Knowledge	873645	17.09	6.25	771031	13.78	4.99
Arithmetic Reasoning	873645	12.18	5.99	771031	13.29	5.85
Tool Knowledge	873636	10.27	5.76	771031	10.98	6.17
Space Perception	873637	9.95	5.59	771031	13.45	5.69
Mechanical Comprehension	873637	11.35	4.85	771031	12.51	5.05
Shop Information	873635	9.77	5.46	771031	11.60	5.48
Automotive Information	873636	8.58	6.24	771031	11.48	5.20
Electronic Information	873628	10.08	5.85	771031	11.16	5.68

*a Numbers vary from subtest to subtest as a result of some few students failing to complete all portions of the battery. Only complete results were used in computation of means and standard deviations.

a genuine misunderstanding of standardized instructions. To a lesser extent, the same potential source of error variance impacts upon distributions reported for grades nine through 12.

III. RESULTS (DEVELOPMENT OF ASVAB REFERENCE TABLES)

Data summarized in the tables appended to Appendix 2 were constituted on the basis of 771,031[1] students tested on ASVAB (Form 2).

Differences between empirical norms for students tested on Form 1 (SY 1972-73) and Form 2 (SY 1973-74) are summarized in terms of overall subtest means and standard deviations in Table 4. Most of the difference between the two samples is a function of "engineered" redistributing of item difficulties resulting from recommendations contained in Thomas, 1970, (op. cit.) and submitted by other service researchers.

Information shown in Tables 1 through 19 (Appendix 2) are characteristic of all students tested - by subtest and composite - on the battery during the preceding year's test cycle. The resultant percentiles are not a random representation because the 771,031 students tested did not accurately reflect *all* strata of any

[1]The difference between total number of students tested on ASVAB-2 in SY 1973/74 (N=872,493) and number used in the norming sample (N=771,031) is a function of cases dropped because of student failure to code grade or sex on the answer card and termination of the norming group on 31 Mar 74 (i.e., students tested after 31 Mar 74 are not included in these data tables)

nation-wide population who might be expected to eventually take ASVAB, but they are true empirical norms.

Tables in Appendix 2 are:

Tables 1-9: Show raw score to percentile conversions by subtest recorded by grade and sex. Separate conversions are recorded by: grade and sex, overall grade, and total national percentiles.

Tables 10-14: Reflect the same information as shown in Tables 1 through 9, but report percentiles for each of the five ASVAB composites. Actual scores reported on the student record portion of the gummed label printout provided by AFVTG to high school counselors are extracted from these tables. Data in Tables 1 through 14 serve as the norming base for constitution of the counselor's portion of the gummed label printout.

Table 15: Shows raw score to percentile conversions on subtests and composites for ninth graders and post-high school graduates only. As indicated earlier, caution should be used in generalizing from these data to any nation-wide populations. It is further stressed that applicability of ASVAB at the ninth grade level has yet to be established.

Tables 16-17: Show overall means and standard deviations by subtest and composite by geographic grouping for grade and sex. To the extent that prescribed geographic regions represent competitive labor markets, these data are expected to serve as an overall occupational "expectancy" norming referent. The groupings of states in each of the ten regions were defined in accordance with the first number in the five-digit zip code system prescribed by the US Postal Service. This process was used primarily due to the simplicity in extracting data from historical ASVAB computer banks[2].

[2]Separate raw score to percentile conversion tables have been prepared for geographic region to display information - by region - as shown in Tables 1 through 14 in Appendix 1. These tables are available from the Armed Forces Vocational Testing Group upon request

Tables 18-19: Report subtest and composite means and standard deviations by grade and sex for nation-wide samples.

IV. INTERPRETATION

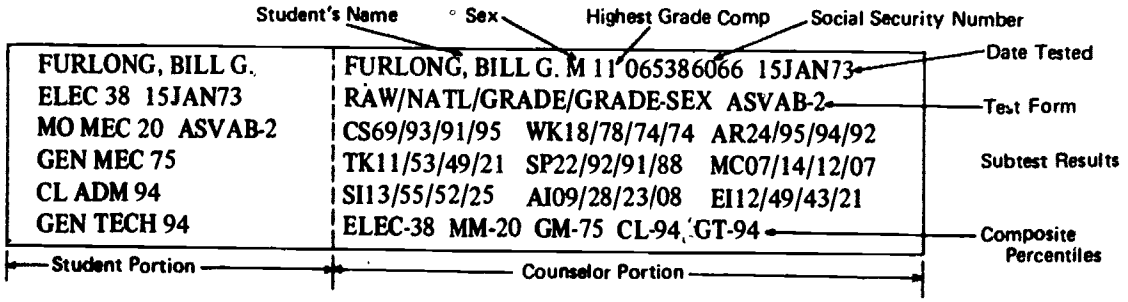
The ASVAB percentile tables summarized in this report are not self-interpreting, in that the manner in which a test score is reported to a student represents a descriptive rather than an absolute indicator of aptitude performance.

Percentile tables do indicate levels of achievement relative to known samples of students who have previously taken ASVAB. The data are also useful in defining the range of scores, extent of skewness, and areas of restricted variance. Users are referred to classical psychometric texts, such as Guion (1965), Cronback (1960), or Anastasi (1970) for a more complete discussion of normative interpretation.

A. Subtest Scores: As part of a programmed annual reissue of student ASVAB normative data, based upon samples tested during each preceding school year, both total sample N's and associated percentile scales are expected to display moderate fluctations. In this respect, yearly changes in this nation-wide standardized examination should be expected in successive AFVTG Technical Research Notes.

For this reason, the Armed Forces Vocational Testing Group supportive computer system used to report individual ASVAB test scores has been programmed to generate percentiles yearly against nation-wide performance on the complete battery during the preceding school year. As an example, the counselor/student report of subtest and composite percentiles (Figure 1) summarizes a student's ASVAB record (who was tested during school year 1974-75), computed against national norms derived from actual experience of test performance - across all students - during school year

COUNSELOR PRINTOUT GUIDE



APTITUDE COMPOSITES

ELEC	-	Electronics
MO MEC	-	Motor Mechanics
GEN MEC	-	General Mechanics
CL ADM	-	Clerical/Administrative
CEN TECH	-	General/Technical

SUBTESTS

CS	-	Coding Speed
WK	-	Word Knowledge
AR	-	Arithmetic Reasoning
TK	-	Tool Knowledge
SP	-	Space Perception
MC	-	Mechanical Comprehension
SI	-	Shop Information
AI	-	Automotive Information
EI	-	Electronics Information

Figure 1

1973-74 *as displayed in the tables contained in this report.* Similarly, percentile scores reported for individuals to be tested in SY 1975-76 will be based on empirically available norms computed upon 1974-75 ASVAB test performance for both subtest and composite scores.

Individual student ASVAB scores as reflected in Figure 1 are related to varying levels of nation-wide samples as follows (Sample sizes are shown in Tables 18 and 19, Appendix 2).

1. The first value reported for subtests is attained raw score where the computational formula is Rights minus 1/3 Wrongs (except for the Coding Speed subtest). These scores are presented for the benefit of those schools/districts/states desiring to transform attained values to other normative scales (e.g., Stanine scales, Z scales, normalized percentiles, and similar standardized scales).

2. The second reported subtest value is a percentile score based upon all individuals tested on ASVAB during the preceding school year. As mentioned previously, these percentile ranks embrace a range from ninth grade through junior college, technical institute, or community college.

3. The second percentile rank reported (i.e., the third value shown on the printout for each student) represents all individual scores by subtest, by grade. Since the majority of persons tested with ASVAB fall between grades 10 through 12, percentiles (Tables 1-14) are restricted to these levels.

4. The final score recorded for each student reflects nation-wide percentiles for both grade and sex. As a counseling aid, various combinations of tabled percentiles may prove useful in aiding students in career decision. For example, in

counseling an 11th grade female interested in possible entry into the Electronics field, it may be desirable to contrast her attained scores against percentile distributions for 12th grade males, since the latter group best represents a realistic pool of competitors for initial entrance into the labor market.

B. **Use of ASVAB Composites**: Occupational placement and vocational counseling are more efficiently accomplished on the basis of the results of several measurements in combination rather than on the score from a single scale (or subtest). The underlying rationale is that most occupations involve multiple combinations of aptitudes, skills, and abilities; that is, they are factorially complex, involving interaction of several different types of learning and environmental experiences. It is also emphasized that the initial conceptualization involved in formulating ASVAB (Bayroff and Fuchs, 1970) assumed that optimum validity for the battery would be best achieved through combination of subtests into composites. For these reasons, it is the aptitude composite that possesses maximum utility for student counseling; and, in turn, normative scales for the separate composites in this summary have the most valid basis for interpretation. Additionally, the various validity studies thus far conducted on ASVAB as related to criteria of academic (Harris and Huckell, 1974) or training (Vitola, Mullins and Croll, 1973; and Thomas, 1970, op. cit.) report validity on the battery only in terms of composite test performance. As an added aid to counselor interpretation, the following supplemental description of the five ASVAB student composites should be reviewed in relationship to specific percentile norms as reported in the various tables appended to this report.

1. **General Technical (GT)**: As demonstrated by Harris and Huckell, op. cit., the general-technical composite best represents the student's capability for potential performance in occupational areas requiring overall academic ability. The composite is composed of unit weighting the Word Knowledge (WK) and Arithmetic Reasoning (AR) subtests of ASVAB. Males and females perform at essentially the same level, across all grade levels, on this composite.

2. **Clerical (CL)**: This composite measures the student's ability relevant to performance in the range of clerical and administrative occupations. The composite consists of the Clerical Coding Speed (CS) and Word Knowledge (WK) subtests of the battery. On this composite it is to be noted that females consistently score higher than males.

3. **Electronics (EL)**: This composite measures student skills in terms of abilities related to electrical/electronic knowledge to include electrical theory, schematics, and test equipment. The composite is computed from the Electronic Information (EI) and Mechanical Comprehension (MC) subtests. On this composite a distinct and significant difference ($p < .001$) existed between male and female test results, with males performing significantly higher.

4. **General Mechanics (GM)**: This composite is correlated with performance requiring abilities in a variety of mechanical, skilled trades, and trade occupations (for sample vocational jobs refer to Volume II, DOD 1304.12Y, of the ASVAB Counselor's Manual). The GM composite consists of the ASVAB Shop Information (SI) and Spatial Perception (SP) scales. As with the EL composite, the GM composite shows consistent differences between male and female test performance.

5. **Motor Mechanics (MM)**: This composite measures skills, knowledge, and achievement related to engine, automotive, and mechanical repair operations and related jobs. It is composed of measures of Automotive Information (AI) and Mechanical Comprehension (MC). Again, males consistently possess higher mean scores than females.

As is the case with most nation-wide standardized aptitude test batteries, interpretation of ASVAB against locally developed and maintained test norms is highly encouraged. It is at the local level that student test data can be compared against other predictor variables such as actual classroom performance, outside activities, and similar noncognitive factors; all of which are essential to the individual guidance and counseling process.

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Appendix 1

DESCRIPTION OF ASVAB SUBTESTS

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 specified 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.

TABLE 1

Coding Speed

Raw Score To Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
000	1	1	1	1	1	1	1	1	1	0	000
001	1	1	1	1	1	1	1	1	1	0	001
002	1	1	1	1	1	1	1	1	1	0	002
003	1	1	1	1	1	1	1	1	1	0	003
004	1	1	1	1	1	1	1	1	1	0	004
005	1	1	1	1	1	1	1	1	1	0	006
006	1	1	1	1	1	1	1	1	1	0	006
007	1	1	1	1	1	1	1	1	1	0	007
008	1	1	1	1	1	1	1	1	1	0	008
009	1	1	1	1	1	1	1	1	1	0	009
010	1	1	1	1	1	1	1	1	1	1	010
011	1	1	1	1	1	1	1	1	1	1	011
012	1	1	1	1	1	1	1	1	1	1	012
013	1	1	1	1	1	1	1	1	1	1	013
014	1	1	1	1	1	1	1	1	1	1	014
015	1	2	1	1	1	1	1	1	1	1	015
016	1	2	1	1	1	1	1	1	1	1	016
017	1	2	2	1	1	1	1	1	1	1	017
018	1	2	2	1	1	1	1	1	1	1	018
019	1	3	2	1	2	1	1	2	1	2	019
020	1	3	2	1	2	1	1	2	1	2	020
021	1	4	3	1	2	2	1	2	2	2	021
022	2	4	3	1	2	2	1	2	2	2	022
023	2	5	3	1	3	2	1	3	2	3	023

TABLE 1 (Cont'd)

Coding Speed

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
024	2	6	4	1	3	2	2	3	2	3	024
025	3	6	5	2	4	3	2	4	3	4	025
026	3	8	5	2	4	3	2	4	3	4	026
027	3	9	6	2	5	4	2	5	4	5	027
028	4	10	7	2	6	4	3	5	4	5	028
029	4	11	8	3	7	5	3	6	5	6	029
030	5	13	9	3	8	6	3	7	5	7	030
031	6	15	11	4	9	7	4	8	6	8	031
032	7	17	12	4	11	8	4	10	7	9	032
033	8	19	14	5	12	9	5	11	8	11	033
034	9	22	16	6	14	10	6	13	10	12	034
035	11	25	18	7	16	12	7	14	11	14	035
036	12	28	21	8	19	14	8	16	12	16	036
037	14	31	23	9	21	15	9	18	14	18	037
038	16	34	26	10	23	17	10	21	16	19	038
039	18	38	28	12	26	20	11	23	18	22	039
040	21	41	32	13	30	22	13	26	20	25	040
041	23	45	35	15	33	25	14	29	23	28	041
042	26	48	38	17	36	27	16	32	25	30	042
043	29	52	41	19	39	30	18	35	28	33	043
044	32	55	44	22	43	33	20	38	30	36	044
045	35	58	47	24	46	36	22	42	33	39	045
046	38	62	51	27	50	39	25	45	36	42	046
047	41	65	54	30	53	42	27	48	39	45	047
048	44	68	56	32	56	45	30	51	42	48	048

TABLE 1 (Cont'd)

Coding Speed

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
049	47	71	60	35	59	48	33	55	45	51	049
050	51	74	63	39	63	52	36	59	48	54	050
051	56	77	67	44	67	56	40	63	53	58	051
052	59	80	70	47	70	59	43	66	56	61	052
053	62	82	72	50	72	62	46	69	58	64	053
054	65	83	75	53	75	65	49	71	61	66	054
055	68	85	77	56	77	68	52	74	64	69	055
056	71	87	79	60	80	71	56	77	67	72	056
057	74	88	81	63	82	73	59	79	70	74	057
058	76	90	83	66	84	75	62	81	72	76	058
059	78	91	85	68	85	77	64	83	74	78	059
060	80	92	86	71	87	80	67	84	77	80	060
061	82	93	88	74	88	82	70	86	79	82	061
062	84	93	89	76	89	83	72	88	81	84	062
063	85	94	90	78	91	85	75	89	82	85	063
064	87	95	91	80	91	86	77	90	84	87	064
065	88	95	92	82	92	88	79	91	85	88	065
066	90	96	93	84	93	89	81	92	87	89	066
067	91	96	94	87	94	91	84	93	89	91	067
068	92	97	94	88	95	92	86	94	90	92	068
069	93	97	95	90	96	93	87	95	91	93	069
070	94	97	96	91	96	94	89	95	92	94	070
071	94	98	96	92	97	94	90	96	93	94	071
072	95	98	96	93	97	95	91	96	94	95	072
073	95	98	97	94	97	96	92	97	95	96	073
074	96	98	97	94	98	96	93	97	95	96	074

TABLE 1 (Cont'd)

Coding Speed

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
075	96	98	97	95	98	96	94	97	96	96	075
076	97	98	98	95	98	97	95	98	96	97	076
077	97	99	98	96	98	97	95	98	97	97	077
078	97	99	98	96	98	97	95	98	97	97	078
079	97	99	98	97	98	97	96	98	97	98	079
080	97	99	98	97	99	98	96	98	97	98	080
081	98	99	98	97	99	98	97	99	98	98	081
082	98	99	98	98	99	98	97	99	98	98	082
083	98	99	99	98	99	98	97	99	98	98	083
084	98	99	99	98	99	99	98	99	98	98	084
085	98	99	99	98	99	99	98	99	98	99	085
086	98	99	99	98	99	99	98	99	99	99	086
087	98	99	99	98	99	99	98	99	99	99	087
088	99	99	99	99	99	99	98	99	99	99	088
089	99	99	99	99	99	99	99	99	99	99	089
090	99	99	99	99	99	99	99	99	99	99	090
091	99	99	99	99	99	99	99	99	99	99	091
092	99	99	99	99	99	99	99	99	99	99	092
093	99	99	99	99	99	99	99	99	99	99	093
094	99	99	99	99	99	99	99	99	99	99	094
095	99	99	99	99	99	99	99	99	99	99	095
096	99	99	99	99	99	99	99	99	99	99	096
097	99	99	99	99	99	99	99	99	99	99	097
098	99	99	99	99	99	99	99	99	99	99	098
099	99	99	99	99	99	99	99	99	99	99	099
100	99	99	99	99	99	99	99	99	99	99	100
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 2

Word Knowledge

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th. Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	2	1	1	1	1	1	1	1	1	01
02	2	3	2	2	2	1	1	2	1	2	02
03	3	4	4	2	2	2	2	3	3	3	03
04	3	4	4	3	3	2	2	3	3	3	04
05	6	7	6	4	4	4	4	4	4	5	05
06	9	10	9	6	6	6	6	6	6	7	06
07	13	13	13	8	8	8	9	9	9	10	07
08	13	14	13	8	8	8	9	9	9	11	08
09	19	19	19	12	12	12	13	12	13	15	09
10	25	25	25	16	16	16	18	16	17	20	10
11	32	32	32	21	21	22	23	21	22	25	11
12	33	32	32	22	22	22	23	22	22	26	12
13	42	41	41	29	29	29	31	28	29	33	13
14	52	51	52	38	38	39	40	37	38	43	14
15	63	62	63	50	50	50	50	48	49	54	15
16	64	63	63	50	50	50	51	49	50	54	16
17	75	75	75	63	63	63	62	62	62	66	17
18	84	85	85	76	76	75	74	74	74	75	18
19	92	92	92	86	86	86	84	85	85	87	19
20	92	92	92	87	87	86	84	85	85	87	20
21	96	97	97	94	94	93	92	93	92	94	21
22	98	99	99	98	98	97	96	97	97	97	22
23	99	99	99	99	99	99	99	99	99	99	23
24	99	99	99	99	99	99	99	99	99	99	24
25	99	99	99	99	99	99	99	99	99	99	25
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 3

Arithmetic Reasoning

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	2	2	2	1	1	1	1	1	1	2	01
02	4	3	3	2	2	2	2	2	2	3	02
03	6	5	5	4	3	3	4	3	3	4	03
04	6	5	6	4	3	3	4	3	3	4	04
05	9	8	9	6	5	5	7	4	5	7	05
06	14	11	13	9	7	8	10	6	8	10	06
07	20	16	18	14	10	12	15	9	12	14	07
08	21	17	19	14	10	12	15	10	12	15	08
09	29	23	26	21	15	17	22	14	17	20	09
10	38	30	34	28	20	24	28	19	23	27	10
11	47	38	42	36	27	31	36	25	30	34	11
12	48	39	43	37	27	32	37	26	31	35	12
13	58	48	53	46	35	40	46	33	39	44	13
14	66	57	61	54	43	48	54	41	47	52	14
15	74	65	69	62	52	56	62	49	55	60	15
16	75	66	70	63	53	58	63	50	56	61	16
17	82	74	77	71	61	66	71	59	64	69	17
18	87	81	84	78	69	73	77	67	71	76	18
19	91	86	88	84	76	79	83	74	78	82	19
20	92	87	89	84	77	80	84	75	79	82	20
21	95	91	93	89	83	86	89	81	85	87	21
22	97	94	96	93	88	90	93	87	90	92	22
23	99	97	98	96	93	94	96	92	94	95	23
24	99	97	98	96	93	95	96	92	94	95	24
25	99	99	99	99	97	98	99	97	98	98	25
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 4

Tool Knowledge

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	4	1	2	4	1	2	4	1	2	2	01
02	10	1	5	8	1	4	9	1	4	5	02
03	18	2	10	16	1	8	16	1	8	9	03
04	19	2	10	16	1	8	17	1	8	9	04
05	32	4	17	28	3	14	28	2	14	15	05
06	46	6	25	41	5	21	41	4	20	22	06
07	60	10	34	55	7	29	54	7	28	30	07
08	62	11	35	57	8	30	55	7	28	31	08
09	74	16	44	69	12	38	67	11	36	39	09
10	84	23	52	80	17	46	76	15	43	46	10
11	90	31	59	87	24	52	85	21	49	53	11
12	91	32	60	87	24	53	86	22	50	54	12
13	95	41	66	92	32	60	91	29	56	60	13
14	97	51	72	95	41	66	94	37	62	66	14
15	98	60	78	97	50	71	96	45	68	72	15
16	98	60	78	97	50	72	96	46	68	72	16
17	99	70	84	98	60	77	98	55	74	78	17
18	99	78	88	99	69	83	99	64	79	83	18
19	99	85	92	99	77	87	99	73	85	87	19
20	99	85	92	99	78	88	99	74	85	88	20
21	99	91	95	99	85	92	99	82	90	92	21
22	99	95	98	99	91	95	99	89	94	95	22
23	99	98	99	99	96	98	99	95	97	98	23
24	99	98	99	99	96	98	99	95	97	98	24
25	99	99	99	99	99	99	99	98	99	99	25
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 5

Space Perception

Raw Score to Percentile Conversion Tables - by Grade and Sex, By Grade, and National Total

Raw Scores	10t Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	2	2	1	1	1	1	1	1	1	01
02	3	3	2	2	2	2	2	2	2	2	02
03	4	4	4	3	3	3	3	3	3	3	03
04	4	4	4	3	3	3	4	3	3	4	04
05	8	6	7	5	4	4	6	4	5	6	05
06	12	9	10	8	6	7	10	7	8	9	06
07	18	14	15	12	9	11	14	10	12	13	07
08	18	14	16	13	10	11	15	10	12	14	08
09	25	20	22	19	14	16	21	15	18	19	09
10	34	27	30	26	19	22	28	20	24	26	10
11	43	34	38	34	25	29	36	27	31	33	11
12	43	35	39	35	26	30	37	27	32	34	12
13	53	43	48	43	33	38	46	35	40	42	13
14	62	52	57	52	41	46	55	42	48	51	14
15	70	60	65	61	49	54	63	50	56	59	15
16	71	61	66	62	50	55	64	51	56	60	16
17	78	69	74	70	58	64	72	59	64	68	17
18	85	76	80	77	66	71	78	67	72	75	18
19	90	83	86	83	74	78	84	74	79	81	19
20	90	83	86	84	75	79	85	75	79	82	20
21	94	89	91	90	82	85	90	82	86	88	21
22	97	94	95	94	89	91	94	88	91	92	22
23	99	97	98	97	94	95	97	94	95	96	23
24	99	97	98	97	94	96	97	94	95	96	24
25	99	99	99	99	98	98	99	98	98	99	25
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	77103*	N

TABLE 6

Mechanical Comprehension

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	2	1	2	1	1	1	1	1	1	1	01
02	3	2	3	2	1	1	2	1	2	2	02
03	3	3	4	3	2	2	4	2	3	3	03
04	6	4	5	4	2	3	4	2	3	4	04
05	10	5	8	7	3	5	8	3	5	6	05
06	16	8	12	11	4	7	12	5	8	9	06
07	24	11	17	17	7	11	19	7	12	14	07
08	26	12	18	19	7	12	20	7	13	15	08
09	36	16	25	27	10	16	29	10	19	21	09
10	47	22	34	37	15	25	39	15	25	28	10
11	58	29	43	48	20	33	49	20	33	36	11
12	60	31	44	50	22	35	52	22	35	38	12
13	70	40	54	61	29	44	62	28	43	47	13
14	80	50	64	72	38	53	72	37	53	57	14
15	87	61	73	81	48	63	81	47	62	66	15
16	88	63	75	83	50	65	83	49	64	68	16
17	94	73	83	90	61	74	90	60	73	77	17
18	97	82	89	95	72	82	94	71	81	84	18
19	99	89	94	98	82	89	97	80	88	90	19
20	99	90	94	98	83	90	98	82	89	91	20
21	99	95	97	99	90	94	99	89	94	95	21
22	99	98	99	99	95	97	99	95	97	98	22
23	99	99	99	99	98	99	99	98	99	99	23
24	99	99	99	99	98	99	99	98	99	99	24
25	99	99	99	99	99	99	99	99	99	99	25
N	59586	66445	126585	77528	92017	170204	171774	216238	389759	771031	N

TABLE 7

Shop Information

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	3	1	2	2	1	1	2	1	1	2	01
02	6	2	4	4	1	2	4	1	2	3	02
03	11	2	6	8	1	4	8	1	4	5	03
04	12	2	7	9	1	5	9	1	5	6	04
05	21	4	12	16	2	9	18	2	8	10	05
06	31	6	18	26	4	14	26	3	13	15	06
07	44	9	25	38	6	20	37	5	19	21	07
08	45	9	26	40	6	21	38	5	20	22	08
09	58	14	35	53	9	29	51	8	27	30	09
10	71	19	44	66	14	38	64	12	35	38	10
11	81	27	52	77	20	46	75	17	43	46	11
12	82	28	53	78	21	47	76	18	44	47	12
13	89	37	62	86	28	55	84	25	52	55	13
14	94	43	70	92	38	62	91	34	59	63	14
15	97	59	77	96	48	70	95	44	67	70	15
16	97	60	77	96	49	70	95	45	67	71	16
17	99	71	84	98	60	78	98	56	75	78	17
18	99	81	90	99	72	84	99	68	82	85	18
19	99	89	94	99	82	90	99	78	88	90	19
20	99	89	94	99	82	90	99	79	88	90	20
21	99	94	97	99	90	94	99	88	93	94	21
22	99	98	99	99	95	97	99	94	97	97	22
23	99	99	99	99	98	99	99	98	99	99	23
24	99	99	99	99	98	99	99	98	99	99	24
25	99	99	99	99	99	99	99	99	99	99	25
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 8

Automotive Information

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	4	2	3	2	1	2	2	1	1	2	01
02	6	3	4	3	1	2	2	1	2	3	02
03	10	4	7	6	2	4	4	1	3	4	03
04	10	4	7	6	2	4	5	2	3	5	04
05	17	6	11	11	3	7	9	2	5	7	05
06	27	8	17	20	4	11	15	3	8	12	06
07	40	12	25	31	7	18	26	5	14	18	07
08	41	12	26	33	7	19	27	5	15	19	08
09	56	18	36	48	11	28	41	8	23	28	09
10	70	26	47	64	17	39	57	12	32	38	10
11	82	36	58	77	25	49	71	18	42	48	11
12	83	38	59	78	26	50	73	19	43	49	12
13	91	49	69	88	36	60	84	28	52	59	13
14	96	61	77	94	47	68	91	38	61	67	14
15	98	72	84	97	58	76	95	49	69	75	15
16	98	73	85	97	59	76	95	50	70	75	16
17	99	82	90	98	70	83	98	61	77	82	17
18	99	89	94	99	78	88	99	70	83	87	18
19	99	93	96	99	86	92	99	79	88	91	19
20	99	94	96	99	86	92	99	79	88	91	20
21	99	96	98	99	92	95	99	87	92	95	21
22	99	98	99	99	96	98	99	92	96	97	22
23	99	99	99	99	98	99	99	97	98	99	23
24	99	99	99	99	98	99	99	97	98	99	24
25	99	99	99	99	99	99	99	99	99	99	25
N	59586	66445	126535	77528	92011	170204	171774	216238	389759	771031	N

TABLE 9

Electronic Information

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	3	2	2	2	1	1	1	1	1	2	0 & below
01	7	4	5	4	2	3	4	1	2	3	01
02	12	5	8	7	3	4	6	2	4	5	02
03	17	7	12	11	3	7	9	3	6	8	03
04	18	7	12	12	4	7	10	3	6	8	04
05	26	10	17	18	5	11	15	4	9	12	05
06	36	13	24	27	7	16	23	5	13	17	06
07	47	16	31	37	9	22	32	7	18	23	07
08	48	17	32	38	10	23	33	8	19	24	08
09	60	22	40	50	13	30	45	11	26	31	09
10	71	29	49	63	18	39	57	15	34	39	10
11	81	36	57	74	24	47	69	21	42	48	11
12	82	37	58	75	25	48	70	21	43	49	12
13	89	46	67	84	34	57	80	29	52	57	13
14	94	57	74	91	44	65	88	39	61	66	14
15	97	67	81	95	54	73	93	50	69	74	15
16	97	68	81	95	55	74	94	51	70	74	16
17	99	77	87	98	67	81	97	63	78	81	17
18	99	85	92	99	76	87	98	73	84	87	18
19	99	90	95	99	84	91	99	82	90	91	19
20	99	91	95	99	84	91	99	82	90	92	20
21	99	95	97	99	90	94	99	89	94	95	21
22	99	97	98	99	94	97	99	94	96	97	22
23	99	99	99	99	97	98	99	97	98	99	23
24	99	99	99	99	97	99	99	97	98	99	24
25	99	99	99	99	99	99	99	99	99	99	25
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 10

GENERAL MECHANICAL COMPOSITE

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	1	1	1	1	1	1	1	1	1	01
02	1	1	1	1	1	1	1	1	1	1	02
03	1	1	1	1	1	1	1	1	1	1	03
04	1	1	1	1	1	1	1	1	1	1	04
05	1	1	1	1	1	1	1	1	1	1	05
06	1	1	1	1	1	1	1	1	1	1	06
07	2	1	1	1	1	1	1	1	1	1	07
08	2	1	1	1	1	1	2	1	1	1	08
09	3	1	2	2	1	1	2	1	1	2	09
10	4	1	2	2	1	1	3	1	2	2	10
11	5	1	3	3	1	2	4	1	2	3	11
12	6	2	4	4	1	2	4	1	2	3	12
13	8	2	5	5	1	3	6	1	3	4	13
14	9	2	5	6	1	4	7	1	4	4	14
15	11	3	7	8	2	4	9	1	5	5	15
16	12	3	7	9	2	5	10	2	5	6	16
17	15	4	9	11	2	6	12	2	6	7	17
18	17	4	10	13	2	7	14	2	7	8	18
19	21	5	12	16	3	9	16	3	9	10	19
20	22	5	13	17	3	9	18	3	10	11	20
21	26	6	16	20	4	11	21	4	11	13	21
22	29	7	17	22	4	13	23	4	13	14	22
23	33	9	20	26	5	15	27	5	15	17	23
24	35	9	21	27	6	16	28	5	16	18	24
25	40	11	24	32	7	18	32	6	18	20	25

TABLE 10 (Cont'd)

GENERAL MECHANICAL COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
26	43	12	26	34	8	20	35	7	20	22	26
27	47	14	30	39	9	22	39	8	22	25	27
28	49	14	31	41	9	24	41	9	23	26	28
29	54	17	34	45	11	27	45	11	26	29	29
30	57	18	37	48	12	29	48	12	28	31	30
31	62	21	40	53	14	32	53	13	31	34	31
32	63	22	42	55	15	33	55	14	32	36	32
33	68	25	45	60	17	37	59	16	35	39	33
34	71	27	48	63	19	39	62	18	37	41	34
35	75	30	51	67	21	42	66	20	41	45	35
36	76	32	53	69	22	44	68	21	42	46	36
37	80	35	56	73	25	47	72	24	45	49	37
38	82	38	59	76	27	49	75	26	48	52	38
39	85	42	62	79	31	53	78	29	51	55	39
40	86	43	64	81	32	54	80	30	52	57	40
41	89	47	67	84	36	58	83	34	56	60	41
42	90	50	69	86	38	60	85	36	58	62	42
43	93	54	72	89	42	63	88	40	61	65	43
44	93	56	74	90	43	64	88	41	62	66	44
45	95	60	76	92	47	68	91	45	65	69	45
46	96	63	78	93	50	70	92	48	67	71	46
47	97	67	81	94	55	73	94	52	70	74	47
48	97	69	82	95	56	74	94	54	72	75	48
49	98	73	85	96	61	77	96	58	75	78	49
50	98	75	86	97	63	79	96	61	76	80	50
51	99	79	88	98	67	81	97	65	79	82	51

TABLE 10 (Cont'd)

GENERAL MECHANICAL COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
52	99	80	89	98	69	82	98	66	80	83	52
53	99	83	91	99	73	85	98	70	83	86	53
54	99	85	92	99	75	86	99	73	84	87	54
55	99	88	93	99	79	88	99	76	86	89	55
56	99	89	94	99	80	89	99	78	87	90	56
57	99	91	95	99	84	91	99	81	89	91	57
58	99	93	96	99	86	92	99	84	91	93	58
59	99	94	97	99	88	94	99	86	92	94	59
60	99	95	97	99	89	94	99	88	93	94	60
61	99	96	98	99	91	95	99	90	94	96	61
62	99	97	98	99	93	96	99	91	95	96	62
63	99	98	99	99	95	97	99	93	96	97	63
64	99	98	99	99	95	97	99	94	97	98	64
65	99	99	99	99	97	98	99	96	98	98	65
66	99	99	99	99	97	99	99	97	98	99	66
67	99	99	99	99	98	99	99	98	99	99	67
68	99	99	99	99	99	99	99	98	99	99	68
69	99	99	99	99	99	99	99	99	99	99	69
70	99	99	99	99	99	99	99	99	99	99	70
71	99	99	99	99	99	99	99	99	99	99	71
72	99	99	99	99	99	99	99	99	99	99	72
73	99	99	99	99	99	99	99	99	99	99	73
74	99	99	99	99	99	99	99	99	99	99	74
75	99	99	99	99	99	99	99	99	99	99	75
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 11

ELECTRONICS COMPOSITE

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	1	1	1	1	1	1	1	1	1	01
02	1	1	1	1	1	1	1	1	1	1	02
03	1	1	1	1	1	1	1	1	1	1	03
04	1	1	1	1	1	1	1	1	1	1	04
05	2	1	1	1	1	1	1	1	1	1	05
06	2	1	2	1	1	1	1	1	1	1	06
07	3	2	2	2	1	1	2	1	1	2	07
08	4	2	3	2	1	2	2	1	1	2	08
09	5	2	4	3	1	2	3	1	2	3	09
10	7	3	5	4	1	3	4	1	2	3	10
11	9	3	6	5	2	3	5	1	3	4	11
12	9	4	6	6	2	4	6	1	3	4	12
13	12	4	8	7	2	5	7	2	4	6	13
14	13	5	9	9	3	5	8	2	5	6	14
15	16	6	11	11	3	6	10	2	6	8	15
16	18	6	12	12	3	7	11	3	6	8	16
17	21	7	14	14	4	9	13	3	8	10	17
18	23	8	15	16	4	10	15	4	9	11	18
19	27	9	18	19	5	11	18	4	10	13	19
20	29	10	19	21	5	12	19	5	11	14	20
21	33	11	21	24	6	14	22	5	13	16	21
22	35	12	23	26	7	16	24	6	14	17	22
23	40	14	26	30	8	18	28	7	16	20	23
24	42	14	27	32	8	19	30	7	17	21	24
25	46	16	30	36	9	22	34	8	19	23	25

TABLE 11 (Cont'd)
ELECTRONICS COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
26	49	18	33	39	10	24	37	9	21	25	26
27	54	19	36	44	12	26	41	10	24	28	27
28	56	20	37	46	12	28	43	11	25	30	28
29	60	23	40	51	14	31	48	12	28	33	29
30	64	24	43	54	15	33	51	13	30	35	30
31	68	27	46	59	17	36	56	15	33	38	31
32	70	28	48	61	18	38	58	16	35	40	32
33	74	31	52	66	20	41	63	18	38	43	33
34	77	33	54	70	22	44	66	20	40	45	34
35	81	37	57	74	25	47	70	22	43	49	35
36	82	38	59	76	26	49	72	23	45	50	36
37	85	42	62	79	29	52	76	26	48	53	37
38	87	44	65	82	31	54	79	28	50	56	38
39	90	48	68	85	34	57	82	31	54	59	39
40	91	50	69	86	36	59	84	33	55	60	40
41	93	54	72	89	40	62	87	36	59	64	41
42	94	57	74	91	42	64	88	39	61	66	42
43	96	61	77	93	46	68	91	43	64	69	43
44	96	63	78	94	48	69	92	45	66	70	44
45	97	66	81	95	52	72	94	49	69	73	45
46	98	69	82	96	55	74	95	52	71	75	46
47	98	72	85	97	59	76	96	55	73	77	47
48	98	74	85	97	61	77	96	57	74	78	48
49	99	77	87	98	65	80	97	61	77	81	49
50	99	79	88	98	68	82	98	64	79	82	50
51	99	82	90	99	71	84	98	68	81	85	51

TABLE 11 (Cont'd)

ELECTRONICS COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
52	99	83	91	99	73	85	98	70	83	86	52
53	99	86	92	99	77	87	99	74	85	88	53
54	99	87	93	99	79	88	99	76	86	89	54
55	99	90	94	99	82	90	99	80	88	91	55
56	99	90	95	99	83	91	99	81	89	91	56
57	99	92	96	99	86	92	99	83	91	92	57
58	99	93	96	99	87	93	99	85	92	93	58
59	99	94	97	99	89	94	99	88	93	94	59
60	99	95	97	99	90	95	99	88	93	95	60
61	99	96	98	99	92	96	99	91	95	96	61
62	99	96	98	99	93	96	99	92	95	96	62
63	99	97	99	99	94	97	99	94	96	97	63
64	99	98	99	99	95	97	99	94	97	98	64
65	99	98	99	99	96	98	99	96	98	98	65
66	99	99	99	99	97	98	99	96	98	98	66
67	99	99	99	99	98	99	99	97	99	99	67
68	99	99	99	99	98	99	99	98	99	99	68
69	99	99	99	99	99	99	99	98	99	99	69
70	99	99	99	99	99	99	99	99	99	99	70
71	99	99	99	99	99	99	99	99	99	99	71
72	99	99	99	99	99	99	99	99	99	99	72
73	99	99	99	99	99	99	99	99	99	99	73
74	99	99	99	99	99	99	99	99	99	99	74
75	99	99	99	99	99	99	99	99	99	99	75
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 12

MOTOR MECHANICS COMPOSITE

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	1	1	1	1	1	1	1	1	1	01
02	1	1	1	1	1	1	1	1	1	1	02
03	1	1	1	1	1	1	1	1	1	1	03
04	1	1	1	1	1	1	1	1	1	1	04
05	1	1	1	1	1	1	1	1	1	1	05
06	2	1	1	1	1	1	1	1	1	1	06
07	2	1	2	1	1	1	1	1	1	1	07
08	3	1	2	1	1	1	1	1	1	1	08
09	4	2	2	2	1	1	2	1	1	2	09
10	4	2	3	2	1	2	2	1	1	2	10
11	5	2	4	3	1	2	3	1	2	2	11
12	6	2	4	4	1	2	3	1	2	3	12
13	8	3	5	5	1	3	4	1	2	3	13
14	9	3	6	5	2	3	5	1	3	4	14
15	11	4	7	7	2	4	6	1	3	5	15
16	12	4	8	8	2	5	7	2	4	5	16
17	15	5	10	10	2	6	9	2	5	7	17
18	17	5	11	11	3	7	10	2	6	8	18
19	21	6	13	14	3	8	12	3	7	9	19
20	23	7	14	15	3	9	14	3	8	10	20
21	27	8	17	19	4	11	17	3	9	12	21
22	30	9	19	21	4	12	19	4	10	14	22
23	35	10	22	26	5	15	23	4	12	16	23
24	37	11	23	28	6	16	25	5	14	17	24
25	42	12	26	32	7	19	29	6	16	20	25

TABLE 12 (Cont'd)

MOTOR MECHANICS COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
26	46	14	29	36	8	21	33	6	18	22	26
27	52	16	33	42	9	24	38	7	21	25	27
28	54	17	35	44	10	26	40	8	22	27	28
29	60	19	39	50	12	29	46	9	26	30	29
30	64	21	41	54	13	32	50	10	28	33	30
31	69	24	46	60	15	36	56	12	32	37	31
32	72	26	48	63	16	38	59	13	33	39	32
33	77	30	52	69	19	42	64	15	37	43	33
34	80	32	55	73	21	45	68	17	40	45	34
35	84	36	59	77	24	48	73	19	43	49	35
36	85	38	60	79	25	50	76	21	45	51	36
37	88	43	64	84	29	54	80	24	48	54	37
38	90	46	67	86	32	57	83	26	51	57	38
39	93	50	70	89	36	60	86	29	54	60	39
40	94	52	72	90	38	62	88	31	56	62	40
41	95	57	75	92	42	65	90	35	59	65	41
42	96	60	77	94	45	67	92	37	62	67	42
43	97	65	80	95	49	70	94	41	65	70	43
44	98	67	81	96	51	72	94	43	66	72	44
45	98	71	84	97	56	75	96	48	69	74	45
46	99	74	86	98	59	77	97	51	71	76	46
47	99	78	88	98	63	79	97	55	74	79	47
48	99	79	89	98	65	80	98	57	75	80	48
49	99	82	90	99	69	82	98	61	77	82	49
50	99	84	91	99	71	84	98	64	79	84	50
51	99	87	93	99	75	86	99	68	81	85	51

TABLE 12 (Cont'd)

MOTOR MECHANICS COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
52	99	88	94	99	76	87	99	69	82	86	52
53	99	90	95	99	80	89	99	73	85	88	53
54	99	91	95	99	82	90	99	75	86	89	54
55	99	93	96	99	85	92	99	79	88	91	55
56	99	94	97	99	86	92	99	80	89	92	56
57	99	95	97	99	88	93	99	83	90	93	57
58	99	96	98	99	90	94	99	85	91	94	58
59	99	97	98	99	92	95	99	87	93	95	59
60	99	97	98	99	92	96	99	88	93	95	60
61	99	98	99	99	94	97	99	90	95	96	61
62	99	98	99	99	95	97	99	92	95	97	62
63	99	99	99	99	96	98	99	94	97	98	63
64	99	99	99	99	97	98	99	95	97	98	64
65	99	99	99	99	98	99	99	96	98	98	65
66	99	99	99	99	98	99	99	97	98	99	66
67	99	99	99	99	99	99	99	98	99	99	67
68	99	99	99	99	99	99	99	98	99	99	68
69	99	99	99	99	99	99	99	99	99	99	69
70	99	99	99	99	99	99	99	99	99	99	70
71	99	99	99	99	99	99	99	99	99	99	71
72	99	99	99	99	99	99	99	99	99	99	72
73	99	99	99	99	99	99	99	99	99	99	73
74	99	99	99	99	99	99	99	99	99	99	74
75	99	99	99	99	99	99	99	99	99	99	75
N	3586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 13

GENERAL TECHNICAL COMPOSITE

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	1	1	1	1	1	1	1	1	1	01
02	1	1	1	1	1	1	1	1	1	1	02
03	1	1	1	1	1	1	1	1	1	1	03
04	1	1	1	1	1	1	1	1	1	1	04
05	1	1	1	1	1	1	1	1	1	1	05
06	1	1	1	1	1	1	1	1	1	1	06
07	2	2	2	1	1	1	2	1	1	2	07
08	3	3	3	2	2	2	2	2	2	2	08
09	4	3	4	2	2	2	3	2	2	3	09
10	5	4	4	3	2	3	3	2	3	3	10
11	6	5	6	4	3	3	4	3	4	5	11
12	8	7	7	5	4	4	5	4	5	6	12
13	9	8	8	6	5	5	6	5	5	7	13
14	11	9	10	7	6	6	8	6	7	8	14
15	14	12	13	9	7	8	10	7	8	10	15
16	16	14	15	10	8	9	11	8	10	12	16
17	19	16	17	12	10	11	13	10	11	13	17
18	22	18	20	14	11	12	15	11	13	15	18
19	26	22	24	17	14	15	18	13	15	18	19
20	29	25	27	19	16	17	20	15	17	21	20
21	32	28	30	22	18	20	23	17	20	23	21
22	36	31	33	24	20	22	26	19	22	26	22
23	41	35	38	28	23	26	30	23	26	30	23
24	45	39	42	32	26	29	33	25	29	33	24
25	49	43	46	35	29	32	36	28	32	36	25

TABLE 13 (Cont'd)

GENERAL TECHNICAL COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
26	53	47	49	39	33	35	39	31	35	40	26
27	58	52	55	44	38	40	44	36	39	45	27
28	62	56	59	48	41	44	48	39	43	48	28
29	66	60	63	52	45	48	52	43	47	52	29
30	69	64	67	56	49	52	56	47	51	56	30
31	75		72	61	55	58	61	52	56	61	31
32	78	73	75	65	59	61	65	56	60	65	32
33	81	76	78	69	63	65	68	60	64	69	33
34	84	79	81	72	67	69	72	64	68	72	34
35	87	84	85	77	72	74	77	69	73	77	35
36	90	86	88	80	75	77	80	73	76	80	36
37	92	88	90	83	79	81	83	77	79	83	37
38	93	91	92	86	82	84	85	80	82	86	38
39	95	93	94	89	86	87	89	84	86	89	39
40	96	95	96	91	88	90	91	87	89	91	40
41	97	96	97	93	91	92	92	89	91	93	41
42	98	97	98	95	93	94	94	92	93	94	42
43	99	98	99	96	95	96	96	95	95	96	43
44	99	99	99	97	97	97	97	96	96	97	44
45	99	99	99	98	98	98	98	97	97	98	45
46	99	99	99	99	99	99	99	98	98	99	46
47	99	99	99	99	99	99	99	99	99	99	47
48	99	99	99	99	99	99	99	99	99	99	48
49	99	99	99	99	99	99	99	99	99	99	49
50	99	99	99	99	99	99	99	99	99	99	50
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 14

CLERICAL COMPOSITE

Raw Score to Percentile Conversion Tables - By Grade and Sex, By Grade, and National Total

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
0 & below	1	1	1	1	1	1	1	1	1	1	0 & below
01	1	1	1	1	1	1	1	1	1	1	01
02	1	1	1	1	1	1	1	1	1	1	02
03	1	1	1	1	1	1	1	1	1	1	03
04	1	1	1	1	1	1	1	1	1	1	04
05	1	1	1	1	1	1	1	1	1	1	05
06	1	1	1	1	1	1	1	1	1	1	06
07	1	1	1	1	1	1	1	1	1	1	07
08	1	1	1	1	1	1	1	1	1	1	08
09	1	1	1	1	1	1	1	1	1	1	09
10	1	2	1	1	1	1	1	1	1	1	10
11	1	2	2	1	1	1	1	1	1	1	11
12	1	3	2	1	2	1	1	2	1	2	12
13	2	4	3	1	2	2	1	2	2	2	13
14	2	5	4	1	2	2	2	3	2	3	14
15	3	6	4	2	3	3	2	3	3	4	15
16	4	7	6	2	4	3	3	4	3	4	16
17	5	9	7	3	5	4	3	5	4	5	17
18	6	11	9	4	6	5	4	6	5	7	18
19	8	13	11	4	7	6	5	7	6	8	19
20	10	16	13	6	9	7	6	9	8	10	20
21	12	19	16	7	11	9	8	11	9	12	21
22	15	22	18	8	13	11	9	13	11	14	22
23	18	26	22	10	16	13	11	15	13	17	23
24	21	30	26	12	19	16	13	18	16	19	24
25	25	35	30	15	22	19	15	21	18	23	25

TABLE 14 (Cont'd)

CLERICAL COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
26	29	40	35	18	26	22	18	24	22	26	26
27	33	45	40	21	31	26	21	29	25	31	27
28	38	51	45	25	36	31	25	33	29	35	28
29	44	57	51	29	41	36	29	38	34	40	29
30	49	63	56	34	47	41	33	44	39	45	30
31	55	69	62	40	54	47	38	50	45		31
32	61	74	68	45	60	53	43	56	50	57	32
33	67	79	73	51	66	59	49	62	56	62	33
34	72	83	78	57	72	65	55	68	62	68	34
35	77	87	82	63	77	71	61	74	68	73	35
36	82	90	86	69	82	76	66	79	73	78	36
37	86	92	89	74	86	81	72	83	78	82	37
38	89	94	92	79	89	85	77	87	82	86	38
39	92	96	94	84	92	88	81	90	86	89	39
40	94	97	96	88	94	91	85	93	89	92	40
41	95	98	97	91	96	93	89	95	92	94	41
42	97	98	93	93	97	95	91	96	94	95	42
43	98	99	98	95	98	97	94	97	96	97	43
44	98	99	99	97	98	98	95	98	97	98	44
45	99	99	99	98	99	98	97	99	98	98	45
46	99	99	99	98	99	99	98	99	98	99	46
47	99	99	99	99	99	99	98	99	99	99	47
48	99	99	99	99	99	99	99	99	99	99	48
49	99	99	99	99	99	99	99	99	99	99	49
50	99	99	99	99	99	99	99	99	99	99	50
51	99	99	99	99	99	99	99	99	99	99	51

TABLE 14 (Cont'd)

CLERICAL COMPOSITE

Raw Scores	10th Female	10th Male	10th Grade	11th Female	11th Male	11th Grade	12th Female	12th Male	12th Grade	National Total	Raw Scores
52	99	99	99	99	99	99	99	99	99	99	52
53	99	99	99	99	99	99	99	99	99	99	53
54	99	99	99	99	99	99	99	99	99	99	54
55	99	99	99	99	99	99	99	99	99	99	55
56	99	99	99	99	99	99	99	99	99	99	56
57	99	99	99	99	99	99	99	99	99	99	57
58	99	99	99	99	99	99	99	99	99	99	58
N	59586	66445	126585	77528	92011	170204	171774	216238	389759	771031	N

TABLE 15

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Coding Speed

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
000	0	0	0	0	0	0	000
001	0	0	0	0	0	0	001
002	0	0	0	0	0	0	002
003	0	0	0	0	0	0	000
004	0	0	0	0	0	0	004
005	0	0	0	0	0	0	005
006	0	0	0	0	0	0	006
007	0	0	0	0	0	0	007
008	0	0	0	0	0	0	008
009	0	0	0	0	0	0	009
010	0	0	0	0	0	0	010
011	0	0	0	0	0	0	011
012	0	1	0	0	1	0	012
013	0	1	0	0	1	1	013
014	0	1	1	0	1	1	014
015	0	2	1	1	1	1	015
016	0	2	1	1	1	1	016
017	1	2	2	1	2	2	017
018	1	3	2	1	2	2	018
019	1	4	2	1	3	2	019
020	1	4	3	1	3	3	020
021	2	5	4	1	4	3	021
022	2	6	4	2	4	3	022
023	3	7	5	2	5	4	023
024	3	8	6	3	6	5	024
025	4	9	7	3	7	6	025

TABLE 15 (Cont'd)

Coding Speed

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
026	5	11	8	4	8	6	026
027	5	13	9	4	9	7	027
028	6	14	11	4	10	8	028
029	7	17	12	5	11	9	029
030	9	19	14	6	12	10	030
031	10	22	16	7	14	11	031
032	12	25	19	8	15	13	032
033	14	28	21	9	18	14	033
034	16	32	24	10	19	16	034
035	18	35	27	11	21	17	035
036	20	39	30	12	23	19	036
037	23	42	33	14	26	22	037
038	26	46	37	15	29	24	038
039	29	50	40	16	32	26	039
040	32	54	44	18	34	28	040
041	35	58	47	21	37	31	041
042	39	62	51	22	40	33	042
043	42	65	54	23	44	36	043
044	45	68	57	25	46	39	044
045	48	71	61	27	50	41	045
046	52	74	64	30	52	44	046
047	55	76	66	32	55	47	047
048	58	79	69	35	57	49	048
049	61	81	72	39	60	52	049
050	65	83	75	43	63	56	050
051	69	86	78	46	67	59	051

TABLE 15 (Cont'd)

Coding Speed

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
052	72	88	80	49	69	62	052
053	75	89	82	52	72	64	053
054	77	90	84	55	74	67	054
055	79	92	86	58	77	70	055
056	81	93	87	61	79	72	056
057	83	94	89	63	80	74	057
058	85	94	90	66	82	76	058
059	87	95	91	69	84	78	059
060	88	95	92	70	85	80	060
061	89	96	93	73	87	82	061
062	90	96	93	74	88	83	062
063	91	96	94	76	89	84	063
064	92	97	94	78	90	85	064
065	93	97	95	80	91	87	065
066	94	97	96	82	92	88	066
067	94	97	96	84	93	89	067
068	95	98	96	85	93	89	068
069	95	98	97	87	94	91	069
070	96	98	97	88	94	92	070
071	96	98	97	88	95	93	071
072	96	98	97	89	95	93	072
073	97	98	97	89	96	94	073
074	97	98	97	91	96	94	074
075	97	98	98	92	96	95	075
076	97	98	98	93	96	95	076
077	97	98	98	93	97	95	077

TABLE 15 (Cont'd)

Coding Speed

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
078	97	98	98	94	97	96	078
079	97	98	98	94	97	96	079
080	98	98	98	94	97	96	080
081	98	98	98	95	97	96	081
082	98	99	98	95	97	97	082
083	98	99	98	95	98	97	083
084	98	99	98	96	98	97	084
085	98	99	98	96	98	97	085
086	98	99	98	96	98	97	086
087	98	99	98	96	98	97	087
088	98	99	99	96	98	97	088
089	98	99	99	96	98	97	089
090	98	99	99	96	98	98	090
091	98	99	99	97	98	98	091
092	99	99	99	97	98	98	092
093	99	99	99	97	98	98	093
094	99	99	99	97	99	98	094
095	99	99	99	97	99	98	095
096	99	99	99	97	99	98	096
097	99	99	99	98	99	99	097
098	99	99	99	98	99	99	098
099	99	99	99	99	99	99	099
100	99	99	99	99	99	99	100
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Word Knowledge

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	1	1	0 & below
01	2	2	2	2	2	2	01
02	3	4	3	3	3	3	02
03	4	5	3	3	5	5	03
04	5	6	5	6	6	6	04
05	7	9	8	10	8	8	05
06	11	12	12	13	11	12	06
07	16	12	16	17	14	16	07
08	17	17	17	18	16	17	08
09	23	23	23	24	20	22	09
10	30	30	30	31	26	28	10
11	30	39	38	36	32	33	11
12	38	40	39	37	33	34	12
13	48	49	49	43	41	42	13
14	59	59	59	51	49	50	14
15	59	70	70	59	59	59	15
16	70	71	71	60	60	60	16
17	81	81	81	70	71	71	17
18	89	89	89	80	81	81	18
19	94	89	89	87	89	88	19
20	95	95	95	88	90	89	20
21	98	98	98	93	95	94	21
22	99	99	99	97	98	98	22
23	99	99	99	97	98	98	23
24	99	99	99	99	99	99	24
25	99	99	99	99	99	99	25
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Arithmetic Reasoning

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	1	1	0 & below
01	3	3	3	4	2	3	01
02	5	5	5	6	3	4	02
03	7	5	7	9	3	6	03
04	8	7	8	10	5	7	04
05	12	11	12	15	7	10	05
06	18	15	17	20	11	14	06
07	25	21	23	25	15	19	07
08	26	22	24	26	16	20	08
09	35	29	32	34	22	27	09
10	45	38	41	42	29	34	10
11	54	47	50	49	37	42	11
12	56	48	52	51	38	43	12
13	65	57	61	59	46	51	13
14	73	67	70	67	54	59	14
15	80	74	77	74	62	67	15
16	82	76	78	76	64	68	16
17	87	82	85	82	70	75	17
18	92	88	90	87	77	81	18
19	92	88	93	90	82	85	19
20	95	92	94	91	83	86	20
21	97	95	96	95	88	91	21
22	99	97	98	97	92	94	22
23	99	97	98	98	92	96	23
24	99	99	99	99	95	97	24
25	99	99	99	99	98	99	25
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Tool Knowledge

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	0	1	1	0	1	0 & below
01	5	0	3	6	0	3	01
02	11	1	6	12	1	5	02
03	19	2	6	22	1	9	03
04	21	3	11	23	2	10	04
05	35	5	19	36	3	16	05
06	50	9	28	48	5	21	06
07	65	14	38	60	5	28	07
08	66	15	39	62	9	29	08
09	78	22	48	73	14	36	09
10	87	31	57	82	19	43	10
11	87	40	65	82	24	48	11
12	93	41	66	88	25	49	12
13	96	52	73	92	33	55	13
14	98	62	79	95	41	61	14
15	98	71	84	95	49	61	15
16	98	72	85	97	50	67	16
17	99	80	89	98	59	74	17
18	99	87	93	99	68	80	18
19	99	87	93	99	76	80	19
20	99	92	96	99	77	85	20
21	99	96	98	99	85	90	21
22	99	98	99	99	91	94	22
23	99	98	99	99	91	94	23
24	99	99	99	99	95	97	24
25	99	99	99	99	98	99	25
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Space Perception

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	1	1	0 & below
01	2	2	2	2	2	2	01
02	3	3	3	3	3	3	02
03	3	5	3	3	3	3	03
04	6	6	6	6	4	5	04
05	9	8	9	10	6	8	05
60	15	13	14	15	9	12	06
07	21	13	19	21	13	16	07
08	22	18	20	22	14	17	08
90	30	25	27	29	19	23	09
10	39	33	36	37	26	30	10
11	49	42	45	46	33	38	11
12	50	43	46	47	30	38	12
13	60	52	56	57	42	48	13
14	69	61	65	66	50	56	14
15	77	69	73	74	58	64	15
16	78	70	74	75	59	65	16
17	85	78	81	82	67	72	17
18	90	84	87	86	74	79	18
19	90	89	91	90	80	84	19
20	94	90	92	91	81	85	20
21	97	93	95	94	87	90	21
22	98	96	97	97	92	94	22
23	98	96	97	97	92	94	23
24	99	98	99	99	96	97	24
25	99	99	99	99	99	99	25
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By [illegible]e Total

Mechanical Comprehension

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	1	1	0 & below
01	2	2	2	2	2	2	01
02	4	3	3	5	3	3	02
03	4	3	3	7	3	[illegible]	03
04	7	5	6	8	4	6	04
05	13	7	10	14	6	9	05
06	20	10	15	21	8	13	06
07	29	10	21	30	11	18	07
08	31	15	23	33	12	20	08
09	42	21	31	43	17	26	09
10	53	28	40	53	21	33	10
11	65	37	50	63	28	41	11
12	67	39	52	66	31	44	2
13	77	48	62	74	38	52	13
14	85	59	71	81	49	61	14
15	91	70	80	88	58	70	15
16	92	72	82	91	62	73	16
17	96	81	88	95	71	80	17
18	98	88	93	97	80	86	18
19	99	94	96	97	88	92	19
20	99	95	97	99	89	93	20
21	99	98	99	99	93	96	21
22	99	99	99	99	97	98	22
23	99	99	99	99	[illegible]	98	23
24	99	[illegible]	99	99	99	99	24
25	99	99	99	99	99	99	25
N	22999	[illegible]069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Shop Information

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	0	1	1	1	1	0 & below
01	3	1	2	4	1	3	01
02	7	2	4	8	2	5	02
03	12	2	7	13	2	7	03
04	14	3	8	15	3	8	04
05	33	5	13	23	5	12	05
06	34	8	20	34	6	17	06
07	47	12	29	44	9	22	07
08	45	13	30	47	10	24	08
09	63	19	40	58	13	30	09
10	75	27	49	69	18	37	10
11	84	36	59	78	24	44	11
12	85	37	60	80	25	46	12
13	92	48	69	86	32	53	13
14	96	59	76	92	42	61	14
15	96	70	83	92	52	68	15
16	98	71	84	96	53	69	16
17	99	81	90	98	64	77	17
18	99	88	94	98	73	83	18
19	99	88	94	98	82	83	19
20	99	94	97	99	83	89	20
21	99	97	99	99	90	94	21
22	99	99	99	99	95	97	22
23	99	99	99	99	95	97	23
24	99	99	99	99	98	99	24
25	99	99	99	99	98	99	25
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Automotive Information

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	1	0	0 & below
01	5	3	4	4	2	3	01
02	8	4	6	6	3	4	02
03	13	5	9	8	3	5	03
04	14	6	10	9	3	6	04
05	22	9	15	13	4	8	05
06	34	12	23	20	6	11	06
07	47	18	32	30	8	16	07
08	50	19	33	32	9	18	08
09	64	27	44	46	12	25	09
10	77	37	56	61	17	33	10
11	87	48	66	73	24	42	11
12	88	50	68	75	25	44	12
13	94	62	77	85	33	53	13
14	97	73	85	91	43	61	14
15	97	93	90	95	52	68	15
16	99	[illegible]	91	96	64	70	16
17	99	90	95	98	65	77	17
18	99	95	97	99	73	83	18
19	99	95	98	99	81	83	19
20	99	97	98	99	82	88	20
21	99	99	99	99	88	92	21
22	99	99	99	99	92	95	22
23	99	99	99	99	96	95	23
24	99	99	99	99	97	98	24
25	99	99	99	99	99	99	25
N	22999	26069	49330	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

Electronic Information

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	1	1	0 & below
01	9	5	7	7	3	4	01
02	14	7	11	10	4	6	02
03	21	9	15	15	4	6	03
04	23	10	16	16	5	9	04
05	33	14	23	23	7	13	05
06	44	18	30	31	10	18	06
07	55	23	38	40	10	23	07
08	58	24	39	42	13	24	08
09	68	30	48	53	18	31	09
10	79	38	57	65	23	39	10
11	86	47	65	75	29	47	11
12	87	48	67	77	31	48	12
13	92	58	74	86	39	57	13
14	96	68	81	91	48	64	14
15	96	68	81	95	59	72	15
16	98	77	87	96	60	73	16
17	99	85	92	98	68	79	17
18	99	90	95	99	77	85	18
19	99	90	95	99	83	89	19
20	99	95	97	99	84	90	20
21	99	97	98	99	89	93	21
22	99	99	99	99	94	96	22
23	99	99	99	99	94	96	23
24	99	99	99	99	97	98	24
25	99	99	99	99	99	99	25
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

GENERAL MECHANICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	0	0	0	0	0	0	0 & below
01	0	0	0	0	0	0	01
02	1	0	0	1	0	0	02
03	1	0	0	1	0	0	03
04	1	0	1	2	0	1	04
05	2	0	1	2	0	1	05
06	3	1	2	3	0	2	06
07	3	1	2	4	1	2	07
08	4	1	3	5	1	3	08
09	5	2	3	6	1	3	09
10	6	2	4	7	1	4	10
11	8	2	5	9	2	4	11
12	9	3	6	10	2	5	12
13	11	3	7	11	3	6	13
14	12	4	8	13	3	7	14
15	15	5	10	15	3	8	15
16	16	5	11	16	4	9	16
17	19	6	13	20	4	11	17
18	22	7	14	22	5	12	18
19	25	8	16	25	5	13	19
20	27	9	18	27	6	14	20
21	32	10	20	31	7	16	21
22	35	11	23	35	8	18	22
23	40	13	26	39	8	20	23
24	42	14	27	41	9	21	24
25	46	16	30	45	11	24	25

TABLE 15 (Cont'd)

GENERAL MECHANICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
26	50	18	33	48	12	25	26
27	55	20	37	52	13	28	27
28	57	22	38	54	14	29	28
29	62	25	42	58	16	32	29
30	65	27	45	60	17	34	30
31	69	30	49	64	20	36	31
32	71	31	50	66	21	38	32
33	75	35	54	70	23	41	33
34	78	38	57	72	25	43	34
35	81	41	60	75	28	46	35
36	83	43	62	76	30	47	36
37	85	47	65	79	33	50	37
38	87	50	68	81	35	52	38
39	90	54	71	84	38	56	39
40	91	56	72	85	40	57	40
41	93	60	76	88	43	60	41
42	94	63	78	89	46	62	42
43	95	67	80	91	50	65	43
44	96	69	82	92	51	66	44
45	97	73	84	94	55	70	45
46	97	75	86	95	58	72	46
47	98	79	88	95	62	75	47
48	98	80	89	96	63	76	48
49	98	83	91	96	67	78	49
50	98	85	92	97	69	80	50
51	99	88	93	97	73	82	51

TABLE 15 (Cont'd)

GENERAL MECHANICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
52	99	89	94	97	74	83	52
53	99	91	95	98	77	85	53
54	99	92	96	98	79	87	54
55	99	94	96	98	82	87	55
56	99	95	97	98	83	89	56
57	99	96	97	99	86	91	57
58	99	97	98	99	87	92	58
59	99	97	98	99	89	93	59
60	99	97	98	99	90	94	60
61	99	98	98	99	92	95	61
62	99	98	99	99	94	96	62
63	99	98	99	99	94	96	63
64	99	99	99	99	95	97	64
65	99	99	99	99	95	97	65
66	99	99	99	99	97	98	66
67	99	99	99	99	98	98	67
68	99	99	99	99	98	98	68
69	99	99	99	99	98	99	69
70	99	99	99	99	99	99	70
71	99	99	99	99	99	99	71
72	99	99	99	99	99	99	72
73	99	99	99	99	99	99	73
74	99	99	99	99	99	99	74
75	99	99	99	99	99	99	75
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

ELECTRONICS COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	1	1	1	0	1	0 & below
01	3	1	2	2	0	1	01
02	3	2	3	3	0	1	02
03	4	2	3	3	1	2	03
04	5	3	4	4	1	2	04
05	6	3	5	4	1	3	05
06	7	4	6	6	1	4	06
07	9	4	6	8	2	4	07
08	10	5	7	9	2	5	08
09	12	6	9	10	3	6	09
10	14	7	10	11	3	6	10
11	16	7	10	13	3	7	11
12	17	8	12	14	4	8	12
13	20	9	14	15	5	9	13
14	22	10	16	17	5	10	14
15	26	11	18	20	6	11	15
16	27	12	19	21	7	12	16
17	31	13	22	24	7	14	17
18	34	14	24	26	8	15	18
19	38	14	26	30	9	17	19
20	41	16	28	32	10	18	20
21	45	18	31	36	10	20	21
22	48	20	33	38	11	21	22
23	53	21	36	42	13	24	23
24	55	22	38	44	14	25	24
25	60	25	41	47	15	27	25

TABLE 15 (Cont'd)

ELECTRONICS COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
26	63	26	43	50	16	29	26
27	67	29	47	54	18	31	27
28	69	30	48	57	19	33	28
29	73	33	52	61	21	36	29
30	76	35	54	64	22	38	30
31	79	38	57	68	24	41	31
32	81	39	59	69	26	42	32
33	84	43	62	72	28	45	33
34	86	45	64	75	30	47	34
35	89	49	68	79	33	50	35
36	90	51	69	81	34	52	36
37	92	54	72	84	37	54	37
38	93	57	74	86	39	56	38
39	94	61	77	88	42	60	39
40	95	63	78	89	44	61	40
41	96	67	81	92	48	64	41
42	97	69	82	93	51	67	42
43	97	73	84	94	54	69	43
44	98	74	85	95	56	71	44
45	98	77	87	96	60	73	45
46	98	79	88	97	63	75	46
47	98	82	88	97	65	78	47
48	99	83	90	97	67	79	48
49	99	85	92	98	70	81	49
50	99	87	93	98	72	82	50
51	99	89	94	98	75	84	51

TABLE 15 (Cont'd)

ELECTRONICS COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
52	99	90	95	98	76	85	52
53	99	92	95	98	79	87	53
54	99	93	96	99	81	88	54
55	99	93	96	99	81	88	55
56	99	95	97	99	84	90	56
57	99	96	97	99	86	91	57
58	99	96	98	99	88	92	58
59	99	97	98	99	89	93	59
60	99	97	98	99	90	94	60
61	99	98	98	99	92	94	61
62	99	98	98	99	93	95	62
63	99	98	99	99	94	96	63
64	99	98	99	99	95	97	64
65	99	99	99	99	96	97	65
66	99	99	99	99	97	98	66
67	99	99	99	99	97	98	67
68	99	99	99	99	97	98	68
69	99	99	99	99	98	98	69
70	99	99	99	99	98	99	70
71	99	99	99	99	98	99	71
72	99	99	99	99	99	99	72
73	99	99	99	99	99	99	73
74	99	99	99	99	99	99	74
75	99	99	99	99	99	99	75
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

MOTOR MECHANICS COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	1	0	1	1	0	0	0 & below
01	1	1	1	1	0	1	01
02	2	1	1	1	1	1	02
03	2	1	2	2	1	1	03
04	3	2	2	2	1	1	04
05	3	2	3	3	1	2	05
06	4	2	3	4	1	2	06
07	5	3	4	4	1	2	07
08	6	3	5	5	1	3	08
09	7	4	5	6	2	3	09
10	8	4	6	7	2	4	10
11	10	4	7	7	2	4	11
12	11	5	8	8	3	5	12
13	13	6	9	10	3	6	13
14	15	6	11	11	3	6	14
15	17	7	12	12	3	7	15
16	19	8	13	13	4	8	16
17	23	9	15	16	4	9	17
18	25	10	17	17	5	10	18
19	29	11	20	21	5	12	19
20	32	12	21	23	6	13	20
21	36	13	24	27	7	15	21
22	40	14	27	29	8	16	22
23	46	16	30	33	9	18	23
24	48	17	32	35	10	19	24
25	54	20	36	40	11	22	25

TABLE 15 (Cont'd)

MOTOR MECHANICS COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
26	58	21	38	44	12	24	26
27	63	24	42	48	13	26	27
28	66	26	44	50	14	28	28
29	71	29	49	57	15	31	29
30	75	32	52	61	17	33	30
31	79	36	56	65	19	36	31
32	81	38	58	68	20	38	32
33	85	42	62	73	23	41	33
34	87	45	65	76	24	44	34
35	90	50	69	79	27	46	35
36	92	52	70	81	28	48	36
37	94	56	74	84	32	51	37
38	95	60	76	86	34	54	38
39	96	64	79	89	37	57	39
40	97	66	81	90	40	59	40
41	97	71	84	92	43	62	41
42	98	74	85	93	46	64	42
43	98	78	88	93	49	66	43
44	98	80	89	95	51	68	44
45	99	83	91	96	55	71	45
46	99	85	92	97	58	73	46
47	99	88	93	97	62	76	47
48	99	89	94	98	64	77	48
49	99	91	95	98	68	79	49
50	99	92	96	98	71	81	50
51	99	94	96	98	74	83	51

TABLE 15 (Cont'd)

MOTOR MECHANIC' OMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
52	99	95	97	99	75	84	52
53	99	95	97	99	78	86	53
54	99	96	98	99	80	87	54
55	99	97	98	99	82	89	55
56	99	97	98	99	84	90	56
57	99	98	98	99	86	91	57
58	99	98	98	99	88	92	58
59	99	98	99	99	89	93	59
60	99	98	99	99	90	94	60
61	99	98	99	99	92	95	61
62	99	99	99	99	94	96	62
63	99	99	99	99	94	96	63
64	99	99	99	99	95	97	64
65	99	99	99	99	96	97	65
66	99	99	99	99	97	98	66
67	99	99	99	99	97	98	67
68	99	99	99	99	98	98	68
69	99	99	99	99	98	99	69
70	99	99	99	99	99	99	70
71	99	99	99	99	99	99	71
72	99	99	99	99	99	99	72
73	99	99	99	99	99	99	73
74	99	99	99	99	99	99	74
75	99	99	99	99	99	99	75
N	22999	26069	49338	1856	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

GENERAL TECHNICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Ma	Post High School Graduate Total	Raw Scores
0 & below	0	0	0	0	0	0	0 & below
01	0	1	1	1	0	0	01
02	1	1	1	1	1	1	02
03	1	2	2	2	1	2	03
04	2	3	2	3	2	2	04
05	3	3	3	4	2	3	05
06	4	4	4	5	3	4	06
07	5	5	5	5	3	5	07
08	6	6	6	7	4	6	08
09	7	7	7	9	5	7	09
10	8	8	8	11	6	8	10
11	10	10	10	13	8	10	11
12	12	12	12	15	9	11	12
13	14	13	14	16	10	13	13
14	16	15	16	18	12	14	14
15	19	18	19	21	15	17	15
16	22	20	21	24	16	19	16
17	25	23	24	26	18	21	17
18	28	26	27	29	21	24	18
19	32	30	31	33	23	27	19
20	35	33	34	35	25	29	20
21	39	37	38	37	29	32	21
22	43	40	42	40	31	35	22
23	49	45	47	44	35	38	23
24	52	49	51	47	39	42	24
25	57	53	55	51	42	45	25

TABLE 15 (Cont'd)

GENERAL TECHNICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
26	61	57	59	54	45	48	26
27	66	62	64	58	50	53	27
28	70	66	68	61	53	57	28
29	74	70	72	64	57	60	29
30	78	74	76	67	60	63	30
31	82	78	80	72	65	68	31
32	85	81	83	75	68	71	32
33	87	84	86	78	71	74	33
34	90	87	88	82	76	78	34
35	92	90	91	84	80	82	35
36	94	92	93	87	83	84	36
37	95	93	94	89	85	87	37
38	96	95	96	91	87	89	38
39	96	96	97	94	90	92	39
40	98	97	97	95	92	93	40
41	98	98	98	96	94	95	41
42	99	98	98	97	95	96	42
43	99	98	99	98	96	97	43
44	99	99	99	98	96	98	44
45	99	99	99	99	98	98	45
46	99	99	99	99	99	99	46
47	99	99	99	99	99	99	47
48	99	99	99	99	99	99	48
49	99	99	99	99	99	99	49
50	99	99	99	99	99	99	50
N	22999	26069	49338	1956	3101	4987	N

TABLE 15 (Cont'd)

Raw Score to Percentile Conversion Tables - By Grade and Sex and By Grade Total

CLERICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
0 & below	0	0	0	0	0	0	0 & below
01	0	0	0	0	0	0	01
02	0	0	0	0	0	0	02
03	0	0	0	0	0	0	03
04	0	0	0	0	0	0	04
05	0	0	0	0	0	0	05
06	0	1	0	0	0	0	06
07	0	1	1	0	1	1	07
08	0	2	1	1	1	1	08
09	1	3	2	1	2	2	09
10	1	3	3	1	2	2	10
11	2	4	3	2	3	3	11
12	3	5	4	2	4	3	12
13	4	7	5	3	5	4	13
14	5	8	6	4	6	5	14
15	6	10	8	5	7	6	15
16	7	12	9	6	8	8	16
17	9	14	12	8	10	9	17
18	11	16	14	9	12	11	18
19	13	19	16	11	15	13	19
20	16	23	20	13	17	16	20
21	19	27	23	15	20	18	21
22	22	31	27	18	22	21	22
23	26	36	31	20	25	23	23
24	30	41	36	23	28	26	24
25	35	47	41	25	32	30	25

TABLE 15 (Cont'd)

CLERICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
26	40	52	46	29	36	33	26
27	45	58	52	32	41	38	27
28	51	64	58	35	45	42	28
29	56	69	63	40	50	46	29
30	62	75	69	44	55	51	30
31	68	79	74	48	60	56	31
32	73	84	79	53	66	61	32
33	78	87	83	58	71	66	33
34	82	90	87	63	76	71	34
35	86	93	90	68	79	75	35
36	89	95	92	73	83	79	36
37	92	96	94	77	86	83	37
38	94	97	96	81	89	86	38
39	96	98	97	85	92	89	39
40	97	98	98	88	94	92	40
41	98	98	98	90	95	93	41
42	98	99	98	92	95	95	42
43	98	99	99	95	97	96	43
44	99	99	99	96	97	97	44
45	99	99	99	97	98	97	45
46	99	99	99	98	98	98	46
47	99	99	99	98	98	98	47
48	99	99	99	98	99	98	48
49	99	99	99	99	99	99	49
50	99	99	99	99	99	99	50
51	99	99	99	99	99	99	51

TABLE 15 (Cont'd)

CLERICAL COMPOSITE

Raw Scores	9th Female	9th Male	9th Grade	Post High School Graduate Female	Post High School Graduate Male	Post High School Graduate Total	Raw Scores
52	99	99	99	99	99	99	52
53	99	99	99	99	99	99	53
54	99	99	99	99	99	99	54
55	99	99	99	99	99	99	55
56	99	99	99	99	99	99	56
57	99	99	99	99	99	99	57
58	99	99	99	99	99	99	58
N	22999	26069	49338	1856	3101	4987	N

TABLE 16

MEANS AND STANDARD DEVIATIONS OF ASVAB SCORES BY AREA, GRADE AND SEX

AREA I (CONNECTICUT, MAINE, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, RHODE ISLAND AND VERMONT)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
GS	50.38	13.19	43.24	13.47	52 71	12.59	45.90	12.79	53.86	13.06	47.04	12.77	47.94	13.67	CS
WK	13.81	4.67	13.68	4.63	15.45	4.31	15.09	4.28	15.74	4.44	15.43	4.27	14.73	4.57	WK
AR	11.78	5.24	13 16	5.57	13.66	5.34	14.97	5 51	13.94	5.52	15.48	5.39	13.74	5 60	AR
TK	6.32	3.61	13.40	5.05	7.01	4.01	14.66	5.01	6.93	4.00	15.16	5.13	10.95	5.99	TK
SP	12.29	5.29	13.58	5.63	13.54	5.24	14.88	5.46	13.41	5.39	15.18	5.49	13.71	5.55	SP
MC	10.18	4.22	13.42	4.71	11.16	4.11	14.72	4.47	11.15	4.18	15.02	4.50	12.67	4.81	MC
SI	7 45	3.81	13.45	4.73	8 14	3.80	14.69	4.58	8.15	3.82	15.15	4.65	11.49	5.43	SI
AI	7.23	3.59	11.71	4.61	8.20	3.53	13.38	4.60	8.52	3.49	14.31	4.76	10.82	5.06	AI
EI	6.97	4.29	12.31	5.62	8.17	4.21	14.09	5.09	8.49	4.33	14.79	5.18	11.04	5.80	EI
GM	27.19	10.62	40.49	12.70	29.82	10.53	44.27	12.13	29.71	10.67	45.48	12.39	36.68	13 89	GM
EL	24.13	10.87	38.04	14.35	27.50	10.64	42.90	13.14	28.13	11.00	44 60	13.32	34.75	14.95	EL
MM	24.65	9.25	36.84	12.08	27.55	8.97	41.47	11.67	28.20	9.03	43.64	12.15	34.30	13.20	MM
GT	25.59	8.76	26.85	8.99	29.10	8.47	30.06	8.58	29.68	8.81	30.91	8.46	28.47	8.98	GT
CL	30.27	7.06	27.77	7.30	32.68	6.68	30.06	6.79	33.36	6.98	30.78	6.75	30.37	7.31	CL
N	7658		8279		8315		9809		10942		15565		69514		N

TABLE 16 (Cont'd)

AREA II (NEW YORK, PENNSYLVANIA AND DELAWARE)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	49 98	14 [illegible]	42 60	12 87	54.13	13.97	47 28	13.58	55 43	13 84	48.53	13 20	48 95	14.23	CS
WP	13.46	4 82	13.29	4 77	15.10	4.63	14.94	4.49	15.22	4.61	15.33	4.30	14 48	4 78	WP
AR	11 96	5 37	13 04	5.57	13 93	5 62	15.27	5.75	13.98	5.65	15 73	5 50	13 97	5 75	AR
TK	6.19	3.53	13 63	4 92	6 46	3.69	13.98	5.21	6.90	3 94	15.21	5 27	10.94	6 33	TK
SP	12.36	6 28	13 67	5 55	13.43	5.48	14.96	5.56	13.49	5 41	15 22	5 58	13 84	5 69	SP
MC	10 23	4 31	13 54	4 83	11 06	4 32	14.63	4 73	11.20	4.35	15.15	4 62	12.90	4 96	MC
SI	7.47	3.79	13.91	4.72	7 78	3.76	14.13	4.80	8.25	3.96	15.28	4 73	11.58	5 [illegible]	SI
AI	7 28	3.71	11.95	4.68	7.78	3.58	12 68	4.74	8.56	3.68	14.32	4 74	10.87	5.12	AI
EI	7 26	4.39	12.58	5.54	8.17	4.26	13 92	5.34	8.82	4.38	14.98	5 04	11 33	5 74	EI
GM	27.28	10.66	41.29	12.60	28.99	10.69	43.23	12 73	29 99	11.09	45 78	12 67	37 00	14 11	GM
EL	24.75	11.19	38.70	14.46	27.40	11.01	42.47	13 97	28 84	11.33	44.91	13 25	35 47	15 03	EL
MM	24.80	9.59	37.43	12.29	26.62	9 35	39 99	12.24	28.32	9.67	43.80	12 22	34.53	13 45	MM
GT	25.42	9.06	26.33	9.13	29.03	9.17	30.21	9.11	29.21	9.17	31.06	8.65	28 45	9 34	GT
CL	29.78	7 46	27.16	7.33	32.81	7.22	30.36	7 25	33.37	7.25	31.17	6.96	30.47	7.60	CL
N	8345		9435		10890		13076		17142		25273		98275		N

TABLE 16 (Cont'd)

AREA III (DISTRICT OF COLUMBIA, MARYLAND, NORTH CAROLINA, SOUTH CAROLINA, VIRGINIA AND WEST VIRGINIA)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	49.01	14.85	41 85	14.44	50.46	13.81	43.98	12.96	51.55	14.19	45.23	13.71	46.88	14 60	CS
WK	11.49	5.06	11.18	5.38	12.71	5 21	12.90	5.33	12.95	5.24	13.15	5.38	12.47	5.41	WK
AR	10.08	5.40	11.01	5.69	11.37	5.66	13.06	5.76	11.65	5.73	13.52	5.91	11.95	5.92	AR
TK	5.62	3 73	12.58	5.19	5 68	3.76	13.23	5.21	5.93	3.98	13.78	5.29	9.79	6 01	TK
SP	10.56	5.22	11.43	5.66	11.42	5.43	13 04	5.77	11.42	5.45	13.10	5.86	11.86	5.72	SP
MC	3.95	4 37	11 83	5.10	9 61	4 34	13.13	5.00	9.73	4.45	13.44	5.05	11.26	5.14	MC
SI	7.21	3 86	12.59	4.70	7.38	3.89	13.33	4.61	7.60	3.94	13.82	4.62	10.55	5.29	SI
AI	7.68	3 78	11.98	4.82	8.25	3.73	13 15	4.80	8.78	3.65	14.04	4.75	11.00	5.07	AI
EI	7 19	4.46	11.28	5.63	7.67	4.49	12.75	5.34	8.25	4.37	13.49	5.21	10.41	5 61	EI
GM	24.99	10.83	36.61	12.85	26.17	11.03	39.69	12.68	26.62	11.16	40.73	12 86	32.97	13.95	GM
EL	23 32	11 46	34 40	14 94	24.95	11.52	38.63	14.21	26.23	11.39	40.42	14.11	32.07	14 94	EL
MM	24.30	9.82	35.78	12.92	26.12	9.67	39.42	12.56	27.28	9.61	41.52	12.71	33.25	13.53	MM
GT	21.57	9.38	22.19	9.89	24.08	9.84	25.96	9.96	24.61	9.93	26.66	10.23	24.42	10.25	GT
CL	27.49	8.04	24.79	8.47	29.19	7.99	27.23	8.03	29.80	8.21	27.89	8.35	27.77	8 52	CL
N	6565		7168		7379		7512		22707		26762		86921		N

TABLE 16 (Cont'd)

AREA IV (ALABAMA, FLORIDA, GEORGIA, MISSISSIPPI AND TENNESSEE)

Part	10-F M	10-F S	10-M M	10-M S	11-F M	11-F S	11-M M	11-M S	12-F M	12-F S	12-M M	12-M S	Total M	Total S	Part
CS	43.48	13.91	41.81	13.22	52.72	14.29	45.[illegible]	13.52	52.56	14.77	45.89	14.18	47.89	14.97	CS
WR	12.59	5.06	12.60	5.10	13.38	5.15	13.45	5.24	12.89	5.24	12.98	5.42	12.76	5.25	WR
AR	11.41	5.58	12.54	5.78	12.33	5.78	13.[illegible]	5.94	11.74	5.72	13.56	5.94	12.40	5.93	AR
TK	5.97	3.77	12.90	4.96	6.15	3.98	13.73	5.06	6.42	4.32	14.08	5.24	10.11	6.03	TK
SP	11.67	5.43	12.76	5.79	12.30	5.62	13.87	5.93	11.54	5.43	13.13	5.84	12.25	5.74	SP
MC	9.72	4.43	13.00	5.07	10.35	4.47	13.96	5.04	9.82	4.47	13.49	5.09	11.59	5.16	MC
SI	7.54	3.87	13.07	4.62	7.69	3.91	13.80	4.55	7.81	4.06	13.96	4.54	10.78	5.27	SI
AI	7.54	3.81	11.92	4.74	8.32	3.68	13.29	4.74	9.01	3.78	14.33	4.65	11.21	5.08	AI
EI	6.90	4.45	12.15	5.68	7.87	4.36	13.34	5.38	8.40	4.46	13.57	5.14	10.63	5.61	EI
GM	26.74	10.94	38.90	12.75	27.68	11.19	41.47	12.74	27.16	11.39	41.05	12.76	33.77	13.93	GM
EL	23.51	11.41	37.30	14.98	26.08	11.36	40.63	14.47	26.93	11.60	40.64	14.05	32.83	14.98	EL
MM	24.80	9.93	36.83	12.67	26.98	9.75	40.54	12.68	27.86	9.93	42.15	12.64	34.00	13.57	MM
GT	24.00	9.56	25.14	9.74	25.71	9.90	27.29	10.13	24.63	9.92	26.54	10.27	25.16	10.19	GT
CL	28.75	7.65	26.21	7.92	30.62	7.97	28.15	8.10	30.07	8.34	27.94	8.46	28.39	8.53	CL
N	4953		5829		7031		8421		36121		39821		118361		N

TABLE 16 (Cont'd)

AREA V (INDIANA, KENTUCKY, MICHIGAN AND OHIO)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	43 48	13.69	41 48	12 74	52.42	13.07	45.45	12.97	54.93	13.32	48 00	12.90	48.35	13.98	CS
WK	12.20	4 79	12 29	4 96	13.95	4.69	13.78	4.74	14.62	4.51	14.48	4.48	13.61	4.82	WK
AR	10 89	5.3:	12.81	5.67	12 78	5.63	14.07	5.78	13.31	5.47	14.97	5.59	13 18	5 77	AR
TK	6 12	3.67	13.16	5.08	6.66	3 74	14.76	5.08	7.17	4.07	5.64	5.07	11.14	6 12	TK
SP	11 63	5 27	12.95	5.60	13.40	5.37	14.67	5.70	13.50	5.33	14.99	5 57	13.58	5 63	SP
MC	9.50	4.37	12.64	5 02	10.82	4.30	14.37	4.65	11.11	4.24	15.00	4.65	12.47	5.03	MC
SI	7.56	3.96	13.45	4.90	8.21	3.86	14.97	4.66	8.82	4.02	15.78	4.53	11.93	5 55	SI
AI	7 61	3 81	12 00	5.00	8.36	3.58	13 95	4.74	9 26	3.62	15.35	4.69	11.58	5.29	AI
EI	7.00	4.49	11.93	5 64	8 15	4.29	13.95	5.29	9.23	4.23	15.01	4.88	11.33	5 72	EI
GM	26.76	11 08	39.85	13.14	29.82	10 82	44.62	12.70	31.13	11.00	46.55	12.27	37.43	14.27	GM
EL	23.50	11.57	36.49	14.92	27.13	11.03	42 27	14.00	29.57	10.78	45.01	12 99	35.13	15 08	EL
MM	24.72	9.95	36.64	13.23	27.54	9.32	42.27	12.47	29.62	9.19	45.69	12.10	35.63	13.90	MM
GT	23.09	8.95	24.47	9.48	26.73	9.23	27 85	9.37	27.93	8.82	29.43	8.87	26.79	9 45	GT
CL	28.02	7.39	25.78	7.51	31.09	7.10	28.59	7.36	32.59	7.01	30.13	7.04	29.40	7.68	CL
N	9484		10746		11031		13682		22880		29253		109663		N

TABLE 16 (Cont'd)

AREA VI (IOWA, MINNESOTA, MONTANA, NORTH DAKOTA, SOUTH DAKOTA AND WISCONSIN)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	50 82	12.30	44 77	12.87	54.57	12.72	47.57	12.31	56.75	12 09	49.06	11.62	50.89	12.85	CS
WK	14.21	4.25	14.05	4.52	14 86	4.04	14.79	4 08	15.65	3.93	15.48	3.99	15.05	4 14	WK
AR	12.94	5.11	14.24	5.45	13 95	5.26	15 49	5.35	15.14	5.32	16.56	5.27	15.15	5.45	AR
TK	7.01	3.66	14.49	4.72	7.45	3.84	16.62	4.55	8.00	4.04	17.25	4.64	12.73	6.27	TK
SP	13 37	5.19	14.70	5.43	14.21	5.08	15.37	5.25	14.97	5.03	16.06	5.24	15.02	5.29	SP
MC	11.00	4.11	14.46	4.32	11.87	3.99	15.88	4.09	12.49	3.91	16.41	4.11	14.20	4.58	MC
SI	8.29	3.75	14.61	4 21	9.01	3.85	16.66	4.12	9.46	3.90	17.1	4 09	13.35	5 53	SI
AI	8.20	3 53	12.70	4.52	9.20	3.29	15.68	4.32	9.64	3.25	16.76	4.45	13 00	5 29	AI
EI	8 15	4 28	13.39	5.12	9.24	3.99	15.31	4.34	10.00	3 89	15.92	4.27	12.76	5.24	EI
GM	29.95	10 28	43 93	11.42	32.23	10.34	48.69	11.13	33.88	10 51	50.34	11.04	41.71	13.68	GM
EL	27.30	10.77	41.25	13 04	30.35	10 07	46.49	11 38	32.49	9.84	48.25	11.29	39.72	13 72	EL
MM	27.39	8.99	39.86	11.55	30.27	8.43	47.23	10.91	31.77	8.25	49.94	11.22	40.20	13.55	MM
GT	27.15	8.19	28.29	8 76	28.81	8.05	30.28	8.15	30.79	8 04	32.04	8.03	30.20	8.35	GT
CL	30.82	6.52	28.64	7 14	32.72	6.38	30.31	6.36	34.23	6.16	31.50	6.14	31.68	6.62	CL
N	1790		2273		5058		5629		9053		12848		39545		N

TABLE 16 (Cont'd)

AREA VII (ILLINOIS, KANSAS, MISSOURI AND NEBRASKA)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	51.43	12.72	43 40	12.12	55.17	12.43	47.73	12.20	57.40	12.82	49.17	12.56	50.77	13 10	CS
WK	13.29	4.51	13.28	4.57	14.95	4.30	14.83	4.28	15.30	4.32	15.15	4.31	14.62	4.4'	WK
AR	12.00	5.19	12.96	5.55	13.80	5.41	15.05	5.55	14.38	5 58	15.67	5.60	14.24	5 63	AR
TK	6.33	3.69	13.97	5.11	6.76	3.76	14.97	5.18	7.21	3.98	16.12	5.05	11.51	6 26	TK
SP	12 33	5 09	13.52	5 38	13.91	5.24	15.17	5.47	14.11	5.34	15.35	5 51	14.24	5 48	SP
MC	10.35	4.16	13.63	4.72	11.52	4 15	15.04	4.46	11.67	4.20	15.46	4.47	13.25	4 79	MC
SI	7.95	3.79	14.09	4.53	8.51	3.67	15.07	4.42	8.87	3.80	16.04	4.39	12.27	5 39	SI
AI	7.98	3 61	12 80	4 69	8 61	3.35	14.20	4.62	9.19	3.38	15.62	4.65	11.93	5.19	AI
EI	7.51	4.21	12.73	5.25	8.43	3.99	14.44	4.95	9.05	4.05	15.17	4.72	11.72	5 52	EI
GM	28.23	10.41	41.70	12.14	30.92	10.30	45.31	11.88	31.83	10.55	47.44	11.84	38.77	13 68	GM
EL	25.37	10.70	39.09	13.77	28.38	10.18	43.92	12.86	29.76	10.43	45.80	12.48	36.68	14.40	EL
MM	26.31	9.32	39 24	12.29	28.74	8.64	43.44	11.77	30.05	8.79	46.69	11.91	37.11	13.46	MM
GT	25.29	8.51	26.25	8.87	28.75	8.53	29.87	8.59	29.68	8.70	30.82	8.72	28.86	8.95	GT
CL	30.09	6.73	27.42	6.89	33.01	6.56	30.40	6.62	34.10	6.67	31.21	6.77	31.21	7.09	CL
N	6249		7095		8986		10568		15819		21003		75442		N

TABLE 16 (Cont'd)

AREA VIII (ARKANSAS, LOUISIANA, OKLAHOMA AND TEXAS)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	49.46	13.52	43.05	13.30	52.84	14.07	45.44	13.69	53.69	13.40	46.67	13.02	48.30	14.15	CS
WK	11.97	4.98	12.04	5.32	12.82	4.95	12.85	5.19	13.40	5.05	13.46	5.13	12.80	5.21	WK
AR	10.75	5.40	11.98	5.79	11.51	5.57	12.96	5.83	12.29	5.69	13.96	5.82	12.37	5.86	AR
TK	5.80	3.67	13.03	5.03	6.23	3.90	13.99	5.26	6.48	4.17	15.04	5.21	10.50	6.20	TK
SP	11.65	5.20	12.86	5.65	12.29	5.35	13.50	5.81	12.48	5.45	13.96	5.74	12.81	5.66	SP
MC	9.49	4.28	12.78	5.07	10.07	4.30	13.48	4.99	10.39	4.35	14.15	4.87	11.88	5.06	MC
SI	7.29	3.80	13.03	4.58	7.76	3.90	13.89	4.57	8.05	3.97	14.76	4.49	11.12	5.37	SI
AI	8.12	3.69	12.42	4.57	8.66	3.66	13.81	4.71	9.32	3.66	15.03	4.64	11.60	5.09	AI
EI	7.08	4.27	11.74	5.36	7.60	4.31	12.76	5.27	8.54	4.29	13.87	4.94	10.59	5.51	EI
GM	26.22	10.55	38.92	12.55	27.80	10.88	41.29	12.63	28.57	11.16	43.49	12.45	35.06	13.94	GM
EL	23.65	10.95	36.25	14.42	25.26	11.06	38.99	14.15	27.47	11.14	41.90	13.46	33.06	14.70	EL
MM	25.73	9.56	37.61	12.41	27.39	9.54	41.10	12.62	29.04	9.57	44.22	12.45	35.08	13.57	MM
GT	22.72	9.26	24.01	9.95	24.33	9.40	25.81	9.84	25.68	9.62	27.42	9.82	25.17	9.94	GT
CL	28.12	7.32	26.05	7.69	30.10	7.49	27.66	7.87	30.96	7.57	28.68	7.68	28.56	7.96	CL
N	6250		6340		5842		7232		17019		19952		70518		N

TABLE 16 (Cont'd)

AREA IX (ARIZONA, COLORADO, IDAHO, NEW MEXICO, NEVADA, UTAH AND WYOMING)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	49.77	12.06	43.79	11.80	52.75	12.41	46.63	12.06	54.92	12.67	48.83	12.36	49 07	12.98	CS
WK	12.83	4 78	12.96	4 85	14.26	4.65	14.40	4.68	15.15	4.61	15.00	4.63	14.07	4.84	WK
AR	11.25	5 27	12.57	5.71	13.02	5.59	14.57	5.66	13.75	5.65	15.37	5.68	13.45	5.81	AR
TK	6.77	3.66	14.65	4 85	7 72	3.95	16.49	4.72	8.04	4.13	17.25	4.62	13.23	6.23	TK
SP	12.45	5.20	14.03	5.49	14.05	5.22	15.57	5.33	14.50	5.25	16.16	5.37	14.46	5.49	SP
MC	10.42	4.19	13.92	4.72	11.67	4.30	15 48	4.45	12.02	4.27	16.04	4.50	13.38	4.93	MC
SI	8.01	3.78	14.40	4.47	9.00	3.98	16.19	4.36	9.22	4.04	16.65	4.35	12.56	5.54	SI
AI	8.46	3.58	13.12	4.45	9.37	3.58	15.39	4.65	9.86	3.61	16.38	4.69	12.40	5.25	AI
EI	7.15	4.24	12.77	5.34	8.60	4.22	14.85	4.97	9.14	4.17	15.47	4.92	11.59	5.71	EI
GM	28.47	10.46	42.83	12.13	32.05	10.69	47.95	11.80	32.94	10.91	49.47	11.73	39.59	14.10	GM
EL	24.71	10 68	39 47	13.87	28 86	10.76	45.18	13.02	30.30	10.80	46.99	12.95	36.55	14.95	EL
MM	27.34	9.24	40 15	11.72	30.41	9.33	46.26	11.82	31.73	9.35	48.81	12.11	38.17	13.76	MM
GT	24.08	8.81	25.53	9.34	27.28	9.13	28.94	9.13	28.90	9.14	30.38	9.18	27.51	9.49	GT
CL	29.08	6.84	27.22	6 98	31.51	7.03	29.61	6.98	33.13	7.08	30.94	7.04	30.09	7.40	CL
N	3924		4294		3268		4270		6004		7351		31881		N

TABLE 16 (Cont'd)

AREA X (ALASKA, CALIFORNIA, HAWAII. OREGON AND WASHINGTON)

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	48.15	12.49	41.82	12 39	52 68	12.24	46.15	12.12	54.18	12.78	47.73	12.39	48.46	13 13	CS
WK	13.51	4.84	13 26	4.96	15.04	4.53	14.76	4.56	14.59	4.53	18.34	4.50	14.78	4 74	WK
AR	12.06	5.51	13.12	5.76	13.55	5.48	14.94	5.71	14.07	5.57	15.54	5.70	14.06	5.79	AR
TK	6.74	3.93	14.35	5.06	7.50	3.96	15.92	4.94	7.69	4.15	16.45	5.04	12.03	6.25	TK
SP	13.05	5.39	14.46	5.63	14 27	5.31	15.87	5.44	14.67	5.42	16.37	5.46	14.92	5.58	SP
MC	10.69	4.44	13.78	4.97	11.8[illegible]	4 19	15.51	4.50	12.14	4.25	15.90	4 53	13.61	4.90	MC
SI	7.64	3.96	13 89	4.77	8.54	3.86	15.59	4 52	8.84	3.97	16.08	4.57	12.30	5.59	SI
AI	7.68	3.86	12.42	4.94	8.84	3.48	14.70	4.67	9.28	3.54	15.78	4.88	12.03	5 37	AI
EI	6.70	4.22	12.51	5.73	8.22	4.14	14.56	5.10	8.73	4.18	15.23	5.03	11.54	5.82	EI
GM	28.34	10.99	42.24	12.80	31.36	10.64	47.04	12.14	32.35	10.92	48.53	12 21	39.52	14.25	GM
EL	24.08	10.90	38.80	15.00	28.28	10.53	44.63	13.31	29.60	10.73	46.35	13.25	36.68	15.14	EL
MM	26.05	10.03	38 61	13.06	29.51	9.06	44.91	11.97	30.69	9.17	47.45	12.43	37.67	13.95	MM
GT	25.57	9.15	26.38	9 53	28.60	8.89	29.69	9.11	29.65	8.92	30.88	9.04	28.79	9 35	GT
CL	29.23	7.31	26.87	7.55	32.27	6.85	29.81	6.97	33.31	7.00	30.91	6.96	30.55	7.43	CL
N	4368		4984		9697		11775		13887		18251		70477		N

TABLE 17

MEANS AND STANDARD DEVIATIONS OF ASVAB SCORES BY AREA, GRADE AND SEX

AREA 1 (CONNECTICUT, MAINE, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, RHODE ISLAND AND VERMONT)

Part	9-F M	9-F S	9-M M	9-M S	POST-HIGH SCHOOL GRADUATE FEMALES M	POST-HIGH SCHOOL GRADUATE FEMALES S	POST-HIGH SCHOOL GRADUATE MALES M	POST-HIGH SCHOOL GRADUATE MALES S	Part
CS	45 08	12.82	37.93	11 51	53.41	15.84	44.55	14.93	CS
WK	13 23	4.46	12 50	4 71	14.84	4.30	14 2[illegible]	4.37	WK
AR	10 38	4 96	11 55	5 07	12.50	5.30	13.86	5. 7	AR
TK	6.05	3 54	12 62	4 77	6.27	3.68	13 97	5.44	TK
SP	11.16	5.01	12 25	5.29	12.41	5.15	13.11	5.79	SP
MC	9 39	4.04	12 35	4 54	10 01	3.89	12.87	5.22	MC
SI	7 14	3.91	12.69	4.57	8 03	3.65	13.66	5 27	SI
AI	6.63	3 62	10 96	4.56	8 33	3 24	13.28	5.33	AI
EI	6 18	4.34	11.32	5 59	8.57	4.14	13 16	6 03	EI
GM	25 44	10.24	37.63	11 38	28.47	10.19	40 44	13.91	GM
EL	21 73	10 78	34.98	14.11	27.16	10.48	39 19	15.84	EL
MM	22.64	9.17	34 26	11.67	26.67	8.85	39 44	13.96	MM
GT	24.11	8.24	24 05	8 53	27.34	8.83	28.13	8.91	GT
CL	27 92	6 77	[illegible].81	6 80	32 [illegible]1	8.56	28 79	7.45	CL
N	2508		3227		70		184		N

TABLE 17 (Cont'd)

AREA II (NEW YORK, PENNSYLVANIA AND DELAWARE)

Part	9-F M	9-F S	9-M M	9-M S	POST-HIGH SCHOOL GRADUATE FEMALES M	POST-HIGH SCHOOL GRADUATE FEMALES S	POST-HIGH SCHOOL GRADUATE MALES M	POST-HIGH SCHOOL GRADUATE MALES S	Part
CS	16 39	11 64	39 38	11 03	51 34	14 45	44 51	16 47	CS
WP	12 77	4 59	12 41	4 68	13 12	5 12	12 92	5 16	WP
AR	10.96	4 89	11 69	5 30	11 10	5.36	11 87	5.59	AR
TK	5 93	3 36	12 29	4.69	6 62	4.02	14 35	5 84	TK
SP	11.68	5 01	12 55	5 35	11 45	5 28	13.16	5 96	SP
MC	9.69	4 01	12 42	4 66	9 00	4.21	12 39	5 16	MC
SI	7 43	3 63	12.58	4 43	7.82	4 13	13.67	5.30	SI
AI	6 94	3.54	10 96	4 44	7.48	4 60	13.25	5 58	AI
EI	6 83	4 24	11.50	5 24	7.57	4.68	12.75	6.02	EI
GM	26 54	10.08	37 72	11 88	27 10	10.94	40.51	14.30	GM
EL	23.25	10.54	35.43	13 60	24 14	12.11	37 89	15 78	EL
MM	23.48	8.91	34.33	11.54	23 96	11.36	38.90	14.58	MM
GI	23.73	8 22	24.10	8 74	24.22	9.10	24.79	9.27	GT
CL	27.77	6.69	25 20	6.73	29.91	7.30	27.42	8.55	CL
N	4174		5748		102		202		N

TABLE 17 (Cont'd)

AREA III (DISTRICT OF COLUMBIA, MARYLAND, NORTH CAROLINA, SOUTH CAROLINA, VIRGINIA AND WEST VIRGINIA)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	44 90	14 87	38.03	13 66	50 97	13.76	45.75	13 80	CS
WK	9 87	4 99	9 83	5 42	12 92	5.34	13.34	5 29	WK
AR	8 43	5 13	9.55	5.53	11 37	5 98	13.92	5 84	AR
TK	5 14	3 54	11.'3	4 88	5 81	3.95	14.13	5 20	TK
SP	9 08	4 96	9.97	5 46	11.94	5.57	13.21	5.82	SP
MC	7 85	4 19	10.44	5.22	9.29	4.41	13 49	5 20	MC
SI	6 49	3 71	10.99	4.80	7 50	4 19	13.74	4.91	SI
AI	6.87	3 94	10 23	4.87	8.54	3.55	13.90	5 16	AI
EI	5.69	4 32	9.19	5.55	8.31	4.27	13.69	5.48	EI
GM	22 05	10.19	31 95	12 99	26.94	12.09	40.68	13.32	GM
EL	19.23	11 04	28.82	14 85	25 91	11.31	40.87	14.79	EL
MM	21.59	10 08	30.91	13.25	26.37	9.81	41.28	13 65	MM
GT	18 39	9 98	19 38	9 79	24 30	10.41	27 26	9.81	GT
CL	24.49	8.02	22.18	8.38	29.61	8.15	28.29	8.15	CL
N	1992		1958		210		503		N

TABLE 17 (Cont'd)

AREA IV (ALABAMA, FLORIDA, GEORGIA, MISSISSIPPI AND TENNESSEE)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	46 25	13.91	40.12	13.47	52.21	16.99	45.03	15 36	CS
WK	12 31	5.03	11.96	5 35	11.39	5.57	12.19	5.52	WK
AR	10.83	5 28	11 47	5 88	9.94	5.65	12.62	5 95	AR
TK	5.75	3 61	11 32	4.73	5.51	3.96	14 30	5 32	TK
SP	11.01	5.17	11.68	5.80	10.22	5.20	12.98	5 56	SP
MC	9.37	4.32	11.90	5.1	8.48	4.10	12.82	4.95	MC
SI	6.98	3.54	11.38	4.51	6.96	3.91	13.69	5 08	SI
AI	6.97	3 60	10.23	4.47	8.60	3.86	14.14	5.07	AI
EI	6.29	4 28	10.35	5.63	7.08	4.36	13.06	5.68	EI
GM	24.97	10 09	34.44	12.68	24.13	10.72	40.37	13.49	GM
EL	21.95	10.96	32.60	14.91	22.64	11.22	38.93	15.01	EL
MM	23 31	9.42	32.37	12.15	25.68	9.93	41.09	13.45	MM
GT	23.17	9.21	23.43	10.13	21.33	10.17	24.80	10.24	GT
CL	27 42	7 99	25 00	8.34	28.46	8.89	26.85	8.86	CL
N	4488		4349		653		889		N

TABLE 17 (Cont'd)

AREA V (INDIANA, KENTUCKY, MICHIGAN AND OHIO)

Part	9-F M	9-F S	9-M M	9-M S	POST-HIGH SCHOOL GRADUATE FEMALES M	POST-HIGH SCHOOL GRADUATE FEMALES S	POST-HIGH SCHOOL GRADUATE MALES M	POST-HIGH SCHOOL GRADUATE MALES S	Part
CS	44.39	13 14	37.95	12.30	51.28	15.86	43.58	13.99	CS
WK	11.17	4.73	11.11	5.08	13.18	5.69	12 38	5.22	WK
AR	9 94	5 14	10.71	5 40	10 95	6.17	12.27	5.56	AR
TK	5.93	3.46	12 24	4.82	6.77	4.79	14 94	5.65	TK
SP	10.83	5.04	11.60	5.41	11.38	5.94	13.17	6 03	SP
MC	8 91	4.18	11.51	4.93	10.10	4.85	13.07	5.27	MC
SI	7.32	3.85	12 33	4.88	8.38	4.32	14.58	5.59	SI
AI	6 89	3 77	10.65	4 89	8.92	4.05	14.55	5 77	AI
EI	6.19	4 47	10 34	5.68	8.73	4 80	13.67	5 96	EI
GM	25 46	10.69	36.26	13.02	28 13	12.69	42.33	14.93	GM
EL	21 20	11 21	32.18	14.87	27.56	12.57	40.41	15.65	EL
MM	22 59	9.58	32.81	13.01	27.93	10.72	42.17	15.17	MM
GT	21 11	8.74	21 82	9.35	24.13	10.73	24.65	9.39	GT
CL	25 63	7.32	23.42	7 54	29.95	8.28	26.95	7.98	CL
N	3294		3620		82		310		N

TABLE 17 (Cont'd)

AREA VI (IOWA, MINNESOTA, MONT , NORTH OAKOTA, SOUTH DAKOTA AND WISCONSIN)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	47.25	10.80	40.55	10.86	54.90	14 24	45 24	15 72	CS
WK	13.20	4 25	13.00	4.65	14.53	3.88	14 17	4 12	WK
AR	11 51	4.70	12.27	5.33	14.23	4.84	13 74	5.39	AR
TK	6.50	3.28	13.49	4.57	9.13	4.59	15 99	4.93	TK
SP	11.99	5 11	12.75	5.31	13.30	4.71	14 63	5.29	SP
MC	10.02	4.06	13.31	4.51	11 17	4.48	14 63	3.70	MC
SI	8 02	3.68	13.54	4.08	8.50	4.38	15.85	4.61	SI
AI	7 55	3.29	12.09	4.54	8 97	3.89	15 77	4 40	AI
EI	6 78	3.90	12.20	5.05	8.90	4.49	14.80	5.20	EI
GM	28.03	10 36	39.83	11.23	30.30	11.46	46.33	12.32	GM
EL	23.58	9.69	37.72	13.16	28.97	11.27	44.23	12.45	EL
MM	25.32	8.68	37.48	11.54	29.10	10.26	46.18	10.39	MM
GT	24.71	7.78	25.27	8 64	28.77	7.84	27.91	8.08	GT
CL	28.60	6.16	26.19	6.65	32.47	7.78	28 95	7.27	CL
N	622		657		30		93		N

TABLE 17 (Cont'd)

AREA VII (ILLINOIS, KANSAS, MISSOURI AND NEBRASKA)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	47 58	12.75	41.21	11.53	54.26	14 40	43.07	11 90	CS
WK	12 53	4.82	12.86	4.69	13.56	4.84	13 49	5.12	WK
AR	10.90	5 23	11 94	5 37	10 42	6 45	12 98	6 12	AR
TK	5 80	3.34	12 00	5.30	7 66	3 66	15.57	5.35	TK
SP	11.61	4.87	12.69	5 33	12 60	4.64	13 69	5 85	SP
MC	9 48	4.12	12.80	4.60	9.84	4.25	13 98	5.32	MC
SI	7 42	3.71	12.82	4.32	8.16	3.60	14.42	5 35	SI
AI	6 70	3.69	10 82	4 61	9 26	3.55	14.58	5.05	AI
EI	6.25	4 05	11.46	5.29	9.06	4.26	13.74	4 89	EI
GM	26.45	10 11	38.33	11.63	28.93	9 51	42.52	14.13	GM
EL	21.96	10.26	35.71	13.57	27.95	10.95	41.46	13.35	EL
MM	22.86	9.35	34.45	11.79	28.35	9 38	43.14	13.70	MM
GT	23.44	8.83	24.80	8 88	23.98	10.16	26.48	10.12	GT
CL	28.04	6.99	26.27	6 82	31.29	7.98	27.45	7.21	CL
N	1480		1661		55		124		N

TABLE 17 (Cont'd)

AREA VIII (ARKANSAS, LOUISIANA, OKLAHOMA AND TEXAS)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	45 03	13 64	38.10	12.23	54.93	16.05	48.16	14 50	CS
WK	10.87	5.13	11 21	5 27	12 77	5 65	12.79	5.63	WK
AR	9.52	3.38	10.74	5 59	10.83	5.88	12.66	6.06	AR
TK	5.32	3.51	12.08	4 90	6 35	4.04	14.65	5 29	TK
SP	11.11	5.25	11.94	5.65	11.85	5.42	14.05	5.49	SP
MC	9.09	4.29	11.99	5.08	9.55	4.59	13 64	4 99	MC
SI	6.98	3.75	12.33	4.65	7.53	4.38	14.50	4.84	SI
AI	7.33	3 66	11.32	4.50	8.49	4 16	14 46	5.26	AI
EI	5.84	4.14	10.39	5.38	7.71	4.48	13 50	5 65	EI
GM	25.06	10.30	36.59	12.68	26.91	12.06	43.05	13.10	GM
EL	20.77	10.71	32.78	14.45	24.98	11.87	40.64	14.78	EL
MM	23.75	9.53	34.63	12.22	26.54	11.12	42.55	13.75	MM
GT	20.39	9.44	21.95	9.66	23.60	10.59	25.45	10.67	GT
CL	25.54	7.56	23.58	7 [illegible]	30.77	8.98	28.51	8.70	CL
N	18[illegible]		1934		473		471		N

TABLE 17 (Cont'd)

AREA IX (ARIZONA, COLORADO, IDAHO, NEW MEXICO, NEVADA, UTAH AND WYOMING)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	45.85	13 23	39.25	12.65	51.79	14.39	44 49	16.40	CS
WK	11.29	4.67	11.15	5.10	13.68	5.42	12.61	15.48	WK
AR	9.79	5.19	10.61	5.43	11.82	5.48	12.54	6.20	AR
TK	6.22	3.53	12.65	4.62	7.75	3.87	15.74	5.43	TK
SP	11.06	5.04	12.16	5.16	12.32	5.69	13.32	5 79	SP
MC	9.62	4.22	12.21	4.79	10.75	4 78	13 09	4.77	MC
SI	7.65	3.89	12.71	4.45	8.07	5.02	15.03	4.77	SI
AI	7.56	3.68	11.29	4.52	8.43	4.20	14.90	5.70	AI
EI	6.40	4.03	10.34	5.55	7.96	4.61	12.42	5.62	EI
GM	26.37	10.83	37.58	11.67	28.46	11.77	43.37	12 53	GM
EL	21.83	10.15	32.89	14.38	26 68	12.77	37.93	14.21	EL
MM	24.14	9.40	34.79	12.05	27.61	10.82	42.88	14.45	MM
GT	21.08	8.81	21.75	9.30	25.50	10.29	25.15	10.43	GT
CL	26.23	7.28	23.90	7.63	3.71	8.20	27.05	8.95	CL
N	690		789		28		76		N

TABLE 17 (Cont'd)

AREA X (ALASKA, CALIFORNIA, HAWAII, OREGON AND WASHINGTON)

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	43.65	11.44	38.00	10.70	50.28	14.50	44.53	14.32	CS
WK	12.56	4.68	12.47	4.78	15 41	6.06	14.15	5.43	WK
AR	10.64	5.15	11.61	5.41	13.10	6.07	14.07	6.25	AR
TK	6.34	3 53	13.21	4.71	7 40	4.72	16.36	5.32	TK
SP	11 80	4.99	12.92	5.22	13.11	5.61	15.70	6.05	SP
MC	9.73	4.17	12.86	4.66	10.86	4.74	14.66	5.47	MC
SI	7.32	3.80	13.05	4.54	9.29	4.93	15.44	5.14	SI
AI	7.09	3.69	11.11	4.69	9.33	4.32	15.47	5.57	AI
EI	6.09	4.29	11.05	5.63	8.87	4.78	14.50	5.25	EI
GM	26.44	10.37	39.02	12.02	31 68	13.04	46.57	14.21	GM
EL	21.91	10 76	34.97	14.28	28.60	12.59	43 66	14.78	EL
MM	23.90	9.41	35.09	12.16	29.45	11.59	45.61	14.83	MM
GT	23 19	8.68	24.07	8.86	28.51	10.85	28.22	10.61	GT
CL	26.77	6.89	24.79	6.71	31.86	8.42	28.66	8.66	CL
N	1937		2126		153		249		N

TABLE 18

MEANS AND STANDARD DEVIATIONS OF ASVAB SCORES BY GRADE AND SEX ON A NATIONAL BASIS

	10-F		10-M		11-F		11-M		12-F		12-M		Total		
Part	M	S	M	S	M	S	M	S	M	S	M	S	M	S	Part
CS	49 62	13 54	42.57	13.03	53.07	13.25	46.14	12.92	54.10	13.75	47.32	13 19	48 55	14.05	CS
WK	12.83	4.88	12.77	4.99	14 34	4 75	14.24	4.75	14.25	4.93	14.32	4.88	13.78	4 99	WK
AR	11.38	5 39	12.56	5 70	13.06	5.61	14.48	5.76	13.03	5.73	14.78	5.78	13.29	5 85	AR
TK	6.19	3.70	13.48	5 06	6.71	3.89	14.73	5 15	6.85	4.15	15.25	5.23	10.98	6 17	TK
SP	11 99	5 30	13.25	5.65	13.30	5.42	14.73	5.65	12.96	5.52	14.61	5.74	13 45	5 69	SP
MC	9.93	4.34	13.16	4 94	10.99	4.31	14 60	4.75	10.83	4.41	14.71	4.83	12.51	5 05	MC
SI	7 56	3.85	13.54	4.71	8.14	3.86	14.75	4.65	8.32	4 00	15.16	4.64	11.60	5 48	SI
AI	7.69	3 73	12.20	4.75	8.46	3.57	13.87	4.75	9.07	3.63	14.95	4 76	11.48	5.20	AI
EI	7.13	4.36	12.23	5.55	8 17	4.25	13.97	5.20	8.75	4.31	14.52	5.05	11.16	5 68	EI
GM	27.11	10.79	40.32	12.77	29.58	10.85	44.22	12.59	29.60	11.27	44.94	12.77	36 65	14 21	GM
EL	24.19	11.15	37.63	14.59	27.34	10.93	42.55	13.74	28.32	11.20	43.75	13.55	34.84	14.99	EL
MM	25 30	9 67	37.56	12.60	27.90	9.37	42.34	12.34	28.97	9.50	44.61	12.53	35 47	13 72	MM
GT	24.21	9.13	25.33	9.51	27.41	9.26	28 72	9.35	27.29	9.58	29 11	9.53	27.07	9 71	GT
CL	29 03	7.40	26.63	7.58	31.70	7.25	29.29	7.33	31.95	7.67	29.76	7.58	29 63	7 85	CL
N	59586		66445		77528		92011		171774		216238		771031		N

TABLE 19

MEANS AND STANDARD DEVIATIONS OF ASVAB SCORES BY GRADE AND SEX ON A NATIONAL BASIS

	9-F		9-M		POST-HIGH SCHOOL GRADUATE FEMALES		POST-HIGH SCHOOL GRADUATE MALES		
Part	M	S	M	S	M	S	M	S	Part
CS	45 48	13.03	38.96	12.10	52 66	15.91	45.29	14.80	CS
WK	12 04	4.88	11.89	5.05	12 70	5.65	12.94	5.37	WK
AR	10.40	5.18	11.26	5.48	10.90	5.88	12.99	5.95	AR
TK	5 84	3 50	12.16	4.81	6.21	4.15	14.68	5 41	TK
SP	11.10	5.10	12 03	5.49	11.42	5.44	13.52	5 78	SP
MC	9.22	4.20	12.09	4.88	9.32	4.44	13.31	5 12	MC
SI	7.19	3.72	12.30	4.61	7.59	4.25	14 18	5.13	SI
AI	6.97	3.67	10.81	4.62	8.59	3.99	14.27	5.31	AI
EI	6 27	4.28	10.81	5.53	7.79	4.50	13.46	5.66	EI
GM	25.47	10.34	36.64	12.45	26.59	11.73	41.87	13.80	GM
EL	21.76	10.83	33.72	14.43	24.89	11.80	40.22	15.03	EL
MM	23.15	9 40	33.71	12.21	26.50	10.54	41.85	13.99	MM
GT	22.43	8.92	23.15	9.34	23.61	10.49	25.92	10.08	GT
CL	26.86	7.38	24.54	7.44	29.93	8.72	27.70	8.46	CL
N	22999		26069		1856		3101		

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