

# **ASVAB Norms for the Career Exploration Program**

Defense Manpower Data Center

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## **ASVAB Norms for the Career Exploration Program**

National norms for the Armed Services Vocational Aptitude Battery (ASVAB) are provided for students in grades 10, 11, and 12, as well as for postsecondary schools (2-year colleges), as part of the Career Exploration Program. These norms enable students to know how their scores compare with a nationally representative sample of youth in their particular grades.

### **Norming Samples**

The norming samples were obtained from aptitude test data collected as part of the Profile of American Youth (PAY97) project. This large-scale research project was sponsored by the U.S. Department of Defense (DoD) with the cooperation of the U.S. Department of Labor (DoL). PAY97 is intended to update current national norms for the ASVAB. PAY97 was conducted by the National Opinion Research Center (NORC) at the University of Chicago and is described in detail by Moore, Pedlow, and Wolter (1999).

The norming samples<sup>1</sup> were drawn to be representative nationally of two groups of American youth and hence to support two programs of interest to DoD:

1. The Enlistment Testing Program (ETP), which provides an assessment of about 6,000 American youth age 18-23 as of June 1, 1997, with oversampling for Hispanic and Non-Hispanic Black youth.
2. The Career Exploration Program (CEP), which provides an assessment of approximately 4,700 youth expected to be enrolled in grades 10, 11, and 12 as of fall 1997.

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<sup>1</sup> A third sample was drawn at the same time for DoL consisting of youth age 12-16 and is known as the National Longitudinal Survey of Youth (NLSY97).

The norms described in this report for grades 10, 11, and 12 were derived from CEP data. Norms for students in postsecondary schools (2-year colleges) were derived from the ETP data.

The norming samples drawn were based on a stratified clustered random sampling design. The basis of the sampling was the housing unit (HU). All housing units within the 50 states and the District of Columbia had a nonzero probability of selection.

Representative housing units were selected from a large sample of over 90,000 units. Screening interviews were conducted on the occupied units, and selected subsamples of eligible youth were identified for participation in the ASVAB testing.

The testing was done using a Computerized Adaptive Testing (CAT) version of the ASVAB. All testing was conducted under standardized conditions at Sylvan Learning Centers. Serious efforts were expended to encourage participation in the testing. Respondents who agreed to participate in the approximately 1.5 hours of testing were paid \$75 as an incentive.

Table 1 shows the number of youth targeted for the CEP sample, the number of eligibles found, and test completion rates by grade (Moore et al., 1999). The overall completion rate was about 75 percent of eligible youth, and completion rates were similar for the various grades. The postsecondary sample was part of the larger ETP sample. The test completion rate for this larger sample was 77 percent of eligible youth.

The bulk of the sample screening and testing was done in the summer and fall of 1997, but some testing was done through April 1998.

**Table 1. Target Numbers and Completion Rates by Grade for the CEP Sample**

<u>Group</u>	<u>Target</u>	<u>Eligible</u>	<u>Complete ASVAB</u>	<u>Completion rate (%)</u>
10 <sup>th</sup> grade males	1,151	1,179	901	76.42
10 <sup>th</sup> grade females	1,065	1,085	827	76.22
11 <sup>th</sup> grade males	1,089	1,032	730	70.74
11 <sup>th</sup> grade females	1,018	1,017	789	77.58
12 <sup>th</sup> grade males	967	941	684	72.69
12 <sup>th</sup> grade females	874	935	724	77.43
Total	6,164	6,189	4,655	75.21

## Weighting

Data from large-scale national samples are normally weighted to achieve an unbiased estimate of population responses. The weights for the CEP and ETP samples were computed in six stages:

1. Weight for selection probability,
2. Weight for nonresponse to the screening instrument,
3. Weight for subsampling into the CEP and ETP samples,
4. Weight for merging cross-sectional and supplemental samples,
5. Weight for nonresponse to the main data collection and testing, and
6. Poststratification weight to match the U.S. population.

The weights for the CEP sample (grades 10, 11, and 12) were developed by NORC (Moore et al., 1999). The final stage post-stratification weights corrected the sample to the national population by weighting each gender, race/ethnicity, and grade cell to the national population, based on the October 1997 Current Population Survey (CPS).<sup>2</sup>

<sup>2</sup> Bureau of Labor Statistics, U.S. Department of Labor.

Weights for the ETP sample, of which the post-secondary schools are a subset, were developed by MaCurdy and Vytlačil (2003) of Stanford University. These final stage post-stratification weights correct the sample to the national population by weighting each gender, race/ethnicity, age, and respondent's education cell to the national population based on the October 1997 Survey of Income and Program Participation (SIPP).<sup>3</sup> These authors used the SIPP data because the ages and timing of the measurement of educational attainment in the SIPP were thought to be better aligned with the ETP sample.

## **Representativeness of Norms**

Considerable attention has been given to the representativeness of the norms. Norms for a test describe how a target reference population performs on a test. To be truly representative with respect to test scores, the norming sample must be fully representative of the target population on any demographic variable that makes a unique contribution to the variance of test scores.

Sims and Hiatt (2003a) examined the general question of the relationship of demographics to aptitude scores and which demographics make unique contributions to test score variance. They found that a norming sample for aptitude tests must be representative of the underlying population with respect to the demographic variables of age, race/ethnicity, gender, respondent's education, and a social-economic variable, such as mother's education. They also found that, if a norming sample was indeed representative with respect to these five critical demographics, it need not also be representative with respect to other demographics (e.g., number of respondents/siblings in the household, degree of urbanization, or census region).

Tables 2, 3, and 4 compare (Sims and Hiatt, 2003b) the demographic characteristics of the norming sample with those of the national population for grades 10, 11, and 12. The agreement was found to be generally good. As previously noted, the sample was post-stratification weighted by grade, gender, and the three broad race/ethnic groupings of

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<sup>3</sup> Census Bureau, U. S. Department of Commerce.

Black, Hispanic, and Other. It is therefore expected that the weighted sample and the U.S. population should agree closely.

Note that there are some small differences among the population values and the weighted sample for the White, Asian, American Indian, and Other subgroupings. These differences are mainly the result of the small sample sizes for some of these groups and the categorization used by the CPS which does not record an “Other” category.

In addition, Sims and Hiatt (2003b) examined the norming sample for grades 10, 11, and 12 with respect to the five critical demographic variables (age, race/ethnicity, gender, respondent’s education, and mother’s education) and concluded that it was indeed representative of the underlying population and hence was a satisfactory sample for use in developing norms.

As a further check on the norms, these authors also examined changes over time in math and verbal scores for 17-year-old youth from the 1979 and 1997 ASVAB norming samples with those from 17-year-old youth from the National Assessment of Educational Progress (NAEP) conducted by the National Council on Educational Statistics. The agreement on changes in test scores over time on the two instruments was excellent and lends further credence to the new CEP norms.

Because the testing was spread out over many months, there was some concern that youth tested late in the sampling may have been reluctant to test and hence may not have given their full effort. This concern appears to have been unwarranted. Sims and Hiatt (2003c) analyzed a posttest survey and found that respondents tested late in the sampling period reported trying just as hard as those who tested during the first month of the data collection.

**Table 2. Demographic Characteristics of the Norm Sample and the U.S. Population in Grade 10**

<u>Characteristic</u>	<u>Unweighted sample</u>	<u>Percentage</u>	
		<u>Weighted sample</u>	<u>U.S. population*</u>
Gender			
Male	52.06	51.41	51.42
Female	47.94	48.59	48.58
Race/ethnic			
Black	24.29	17.23	16.73
Hispanic	18.20	14.33	12.65
Other	57.51	68.44	70.61
White	(53.97)	(65.11)	(64.80)
Asian	(2.20)	(2.05)	(4.87)
American Indian	(0.41)	(0.39)	(0.94)
Other	(0.93)	(0.89)	(0.00)**

\* October 1997 CPS.

\*\* CPS responses do not contain an "Other" group.

**Table 3. Demographic characteristics of the norm sample and the U.S. population in Grade 11**

<u>Characteristic</u>	<u>Unweighted sample</u>	<u>Percentage</u>	
		<u>Weighted sample</u>	<u>U.S. population*</u>
Gender			
Male	48.06	50.67	50.67
Female	51.94	49.33	49.33
Race/ethnic			
Black	21.72	14.75	16.09
Hispanic	17.64	13.25	13.08
Other	60.63	72.00	70.83
White	(55.89)	(67.04)	(65.96)
Asian	(2.57)	(2.46)	(3.99)
American Indian	(0.59)	(0.71)	(0.88)
Other	(1.58)	(1.79)	(0.00)**

\* October 1997 CPS.

\*\* CPS responses do not contain an "Other" group.

**Table 4. Demographic Characteristics of the Norm Sample and the U.S. Population in Grade 12**

<u>Characteristic</u>	<u>Unweighted sample</u>	<u>Percentage Weighted sample</u>	<u>U.S. population*</u>
Gender			
Male	48.54	50.38	50.45
Female	51.46	49.62	49.55
Race/ethnic			
Black	23.17	15.95	15.87
Hispanic	17.06	13.01	12.00
Other	59.78	71.04	72.13
White	(54.80)	(65.60)	(66.77)
Asian	(3.34)	(3.60)	(3.82)
American Indian	(0.50)	(0.71)	(1.54)
Other	(1.14)	(1.13)	(0.00)**

\* October 1997 CPS.

\*\* CPS responses do not contain an “Other” group.

MaCurdy and Vytlačil (2003) have examined the ETP sample from which the postsecondary sub-sample was drawn and conclude that it is also representative of the underlying population.

## **Norm Distributions**

All ASVAB scores were initially generated on the 1997 ASVAB Score Scale (Segall, 2004). These scores were referenced to a representative group of American youth age 18-23 known as the 1997 Youth Population. Most scores on the high school versions of the ASVAB are converted into other metrics to facilitate use in the CEP. Data shown in Tables 5 and 6 and in the appendix are used to make these conversions.

The norming tables for students in grades 10, 11, 12, and 2-year colleges were developed by Hiatt and Sims (2003) using the data samples described in the preceding sections.

The ASVAB Summary Results sheet reports scores in three metrics. Grade-specific subtest standard scores are shown on the left, and grade and gender-specific percentile scores are shown on the right. The score bands in the center of the form represent a graphical display of the grade-specific subtest standard scores. In addition, a Military Entrance Score (AFQT) is shown at the bottom left.

The AFQT score is expressed as a percentile in the 1997 Youth Population (age 18-23) reference group. It is a composite used by DoD as a measure of general aptitude and is made up of the sum of scores from Arithmetic Reasoning, Mathematics Knowledge, and two Verbal (AR+MK+2VE) subtests. It is the only score on the report sheet referenced to the 18 to 23-year-old youth population.

## Standard Scores

The grade-specific ASVAB subtest standard scores are standardized to have a mean of 50 and a standard deviation of 10 in the indicated grade in the 1997 CEP sample, using the means and standard deviations shown in Table 5.

**Table 5. ASVAB Subtest Means and Standard Deviations by Grade in Youth Population Metric**

<u>Subtest</u>	<u>Grade</u>							
	<u>10<sup>th</sup></u>		<u>11<sup>th</sup></u>		<u>12<sup>th</sup></u>		<u>Postsecondary</u>	
	<u>Mean</u>	<u>Std.</u>	<u>Mean</u>	<u>Std.</u>	<u>Mean</u>	<u>Std.</u>	<u>Mean</u>	<u>Std.</u>
General Science (GS)	46.256	9.451	48.531	9.542	49.479	9.724	50.198	8.747
Arithmetic Reasoning (AR)	45.204	10.289	47.793	10.634	48.939	10.575	50.825	8.269
Word Knowledge (WK)	43.469	9.409	45.836	9.511	47.519	9.075	50.375	8.846
Paragraph Comprehension (PC)	44.010	11.144	46.503	10.798	48.050	10.380	50.784	8.778
Math Knowledge (MK)	47.297	9.290	50.149	9.676	51.377	9.833	51.661	7.932
Mech. Comprehension (MC)	45.589	10.052	47.354	9.879	48.491	9.874	49.825	9.004
Auto & Shop Information (AS)	43.153	8.252	44.903	8.573	46.239	9.144	49.804	9.640
Electronics Information (EI)	43.763	9.387	45.447	9.144	47.425	9.594	50.489	9.413
Assembling Objects (AO)	46.965	9.791	48.563	10.263	49.399	9.978	50.177	9.729
Verbal (VE=WK+PC)	43.301	9.966	45.863	9.932	47.580	9.465	50.584	8.595

Note: Because of its short length and relatively low reliability, PC is never used by itself as a subtest but is always combined with WK to form VE for use in composites. VE is functionally identical to the Verbal Skills Composite described in Table 6.

Most of the mean values for students in grades 10, 11, and 12 in Table 5 are below 50, as expected, because these data are standardized in the 18 to 23-year-old youth population. The Assembling Objects (AO) subtest is not currently included in the CEP but is shown because it might be included at some point in the future.

The grade-specific Career Exploration Composites are constructed from combinations of ASVAB subtests and are standardized to have a mean of 50 and standard deviation of 10 in the indicated grade in the 1997 CEP sample using the means and standard deviations shown in Table 6.

**Table 6. Career Exploration Composite Means and Standard Deviations by Grade in Youth Population Metric**

<u>Career Exploration Composite</u>	<u>Grade</u>							
	<u>10<sup>th</sup></u>		<u>11<sup>th</sup></u>		<u>12<sup>th</sup></u>		<u>Postsecondary</u>	
	<u>Mean</u>	<u>Std.</u>	<u>Mean</u>	<u>Std.</u>	<u>Mean</u>	<u>Std.</u>	<u>Mean</u>	<u>Std.</u>
Math Skills (AR+MK)	46.027	9.776	48.902	10.194	50.162	10.241	51.324	7.905
Verbal Skills (PC+WK)	43.301	9.966	45.863	9.932	47.580	9.465	50.584	8.595
Science and Technical Skills (GS+EI+MC)	44.632	9.615	46.752	9.493	48.280	9.760	50.183	8.915

## Percentile scores

Tables in the appendix are used to convert ASVAB subtest or Career Exploration Composite youth population standard scores (SSS) into grade and gender-specific percentiles. Separate headings are shown for males (M), females (F), and the combined (C) gender groups. For reference, the tables also show the youth population score (YP) corresponding to each SSS for the 18 to 23-year-old population.

For example, an SSS of 50 on the GS subtest corresponds to the 63<sup>rd</sup> percentile of performance for male 10<sup>th</sup> grade students. This same SSS of 50 on GS also corresponds to the 52<sup>nd</sup> percentile of the age 18-23 youth population.

## References

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# Appendix: CEP Norming Tables

Table A-1. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest General Science (GS)

SSS	10th grade			11th grade			12th grade			Post Secondary			YP
	M	F	C	M	F	C	M	F	C	M	F	C	
24	1	1	1	1	1	1	1	1	1	1	1	1	1
25	2	1	1	1	1	1	1	1	1	1	1	1	1
26	2	1	2	1	2	1	1	1	1	1	1	1	1
27	3	2	2	2	2	2	1	1	1	1	1	1	1
28	4	2	3	2	3	2	1	1	1	1	1	1	2
29	4	3	3	2	4	3	2	2	2	1	2	1	2
30	5	4	5	3	5	4	3	3	3	1	2	1	2
31	6	6	6	5	6	5	4	4	4	1	2	2	3
32	8	8	8	5	6	6	4	4	4	2	2	2	4
33	10	10	10	7	7	7	6	6	6	2	3	2	5
34	12	12	12	7	9	8	6	7	7	3	4	3	7
35	14	14	14	9	10	10	7	9	8	3	6	5	8
36	15	16	16	10	12	11	9	11	10	4	6	5	9
37	18	19	19	12	14	13	9	14	12	6	10	8	12
38	20	24	22	14	17	16	10	17	14	7	12	9	13
39	23	28	25	16	19	17	12	19	16	8	14	11	15
40	26	31	28	17	21	19	14	22	18	10	16	13	18
41	28	35	32	20	24	22	16	25	20	12	20	16	20
42	32	38	35	22	27	24	18	29	23	13	24	19	23
43	35	42	38	25	31	28	21	31	26	17	29	23	26
44	38	43	41	29	35	32	23	34	29	20	32	26	29
45	42	48	45	32	39	35	27	39	33	23	36	30	32
46	44	52	48	34	43	38	30	42	36	28	41	35	36
47	49	54	51	40	47	43	35	49	42	31	45	39	39
48	53	60	56	45	52	48	39	53	46	34	50	43	44
49	58	66	62	48	57	52	42	59	51	38	54	46	48
50	63	73	68	52	61	57	46	64	55	42	60	51	52
51	67	76	71	57	67	62	50	69	59	44	65	55	55
52	72	80	76	61	70	66	54	73	64	48	69	59	59
53	75	84	80	67	75	71	57	78	67	53	73	64	63
54	78	87	82	69	79	74	60	80	70	59	76	68	67
55	80	88	84	72	81	76	65	83	74	61	79	71	70
56	83	90	86	75	83	79	68	85	76	67	83	76	74
57	85	92	88	79	85	82	72	86	79	72	86	79	77
58	87	94	90	82	88	85	75	89	82	75	89	82	80
59	89	95	92	86	90	88	79	89	84	80	91	86	83
60	90	97	93	88	92	90	81	91	86	83	92	88	85
61	92	97	95	89	94	92	84	94	89	87	93	90	87
62	94	98	96	91	96	93	86	95	90	90	94	92	89
63	95	98	96	92	97	94	88	96	92	92	95	94	91
64	95	99	97	95	97	96	91	98	94	95	96	96	93
65	96	99	97	96	98	97	92	98	95	96	98	97	94
66	97	99	98	97	99	98	93	99	96	96	98	97	95
67	98	99	99	97	99	98	95	99	97	97	98	98	96
68	99	99	99	99	99	99	96	99	98	98	99	99	97
69	99	99	99	99	99	99	97	99	98	98	99	99	98
70	99	99	99	99	99	99	97	99	98	98	99	99	98
71	99	99	99	99	99	99	98	99	99	98	99	99	99
72	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-2. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Arithmetic Reasoning (AR)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
17	1	1	1	1	1	1	1	1	1	1	1	1	1
18	2	1	2	1	2	1	1	1	1	1	1	1	1
19	2	1	2	1	2	2	2	1	1	1	1	1	1
20	3	2	2	2	2	2	2	1	2	1	1	1	1
21	3	2	3	2	3	2	3	1	2	1	1	1	1
22	4	2	3	3	3	3	3	2	2	1	1	1	1
23	5	3	4	3	3	3	4	2	3	1	1	1	2
24	6	3	4	3	4	4	4	2	3	1	1	1	2
25	6	3	5	4	4	4	4	2	3	1	1	1	2
26	7	4	6	4	5	4	5	2	4	1	1	1	2
27	8	5	7	5	5	5	6	3	4	1	1	1	3
28	8	6	7	5	6	5	6	4	5	1	1	1	3
29	9	7	8	5	6	6	7	4	5	1	1	1	3
30	10	8	9	6	7	7	7	5	6	2	1	1	4
31	11	9	10	6	8	7	7	5	6	2	1	1	4
32	13	10	11	7	9	8	8	6	7	2	1	2	5
33	14	11	12	8	10	9	9	7	8	3	2	2	5
34	15	12	13	9	11	10	9	8	9	3	2	3	6
35	16	14	15	11	13	12	10	9	10	4	4	4	7
36	18	17	17	12	13	13	11	10	10	5	4	4	8
37	21	19	20	13	15	14	12	12	12	5	5	5	9
38	22	22	22	14	18	16	13	13	13	6	6	6	11
39	25	26	25	16	19	18	14	16	15	6	9	8	13
40	28	29	29	18	21	20	15	19	17	8	11	10	15
41	31	31	31	21	25	23	17	22	19	9	13	11	17
42	33	36	35	24	28	26	20	25	23	11	16	14	20
43	37	41	39	26	32	29	22	30	26	13	21	17	23
44	41	46	43	30	36	33	24	34	29	16	24	20	26
45	45	49	47	34	41	38	27	39	33	20	28	24	29
46	50	54	52	39	44	42	30	43	37	23	32	28	33
47	55	60	57	43	50	46	33	49	41	26	37	32	37
48	58	66	62	48	54	51	36	55	46	30	43	37	42
49	63	71	67	54	58	56	41	62	51	34	48	42	47
50	67	75	71	60	64	62	46	67	57	39	54	47	51
51	70	79	74	65	68	67	52	70	61	44	61	53	56
52	74	82	78	68	73	71	57	74	65	50	65	58	60
53	76	84	80	70	76	73	62	76	69	56	69	63	64
54	79	86	83	73	78	75	64	79	71	61	74	68	68
55	82	88	85	75	80	77	69	80	74	67	79	73	72
56	85	90	87	77	81	79	71	82	77	72	82	77	76
57	88	91	89	79	83	81	75	84	79	75	86	81	78
58	89	93	91	82	85	84	76	87	81	78	88	83	81
59	90	94	92	84	87	85	79	88	83	81	90	86	83
60	92	95	93	86	89	88	81	90	85	84	92	88	85
61	94	96	95	88	92	90	84	92	88	87	93	90	88
62	96	98	97	90	93	92	86	93	89	89	94	91	90
63	96	98	97	92	95	94	87	95	91	91	96	93	91
64	97	99	98	94	97	95	91	96	93	93	97	95	93
65	98	99	99	95	98	97	93	98	96	95	98	96	95
66	99	99	99	96	99	98	95	99	97	97	98	98	96
67	99	99	99	97	99	98	96	99	98	98	99	99	97
68	99	99	99	97	99	99	97	99	98	99	99	99	98
69	99	99	99	99	99	99	98	99	99	99	99	99	98
70	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-3. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Word Knowledge (WK)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
19	1	1	1	1	1	1	1	1	1	1	1	1	1
20	2	1	1	1	2	1	1	1	1	1	1	1	1
21	2	1	2	1	2	1	1	1	1	1	1	1	1
22	3	2	2	2	2	2	1	1	1	1	1	1	1
23	4	2	3	2	2	2	1	1	1	1	1	1	1
24	4	3	3	2	2	2	1	1	1	1	1	1	1
25	4	4	4	2	3	3	2	1	2	1	1	1	2
26	6	4	5	2	4	3	2	2	2	1	1	1	2
27	7	5	6	3	4	4	3	2	2	2	1	2	2
28	7	7	7	4	5	4	3	3	3	2	2	2	3
29	9	7	8	5	6	5	3	4	3	2	2	2	3
30	11	8	9	6	6	6	3	4	4	3	3	3	4
31	13	10	11	7	8	7	5	5	5	3	3	3	4
32	14	11	13	7	9	8	6	6	6	3	3	3	5
33	16	14	15	9	10	10	8	7	7	3	4	4	5
34	18	16	17	10	13	11	8	8	8	4	4	4	6
35	21	19	20	13	15	14	9	10	10	5	5	5	7
36	24	23	24	15	17	16	11	12	11	5	7	6	9
37	27	26	26	18	20	19	12	14	13	6	8	7	10
38	30	29	29	22	23	23	14	18	16	8	9	9	12
39	32	32	32	24	25	25	16	20	18	11	10	11	14
40	35	35	35	26	29	28	19	23	21	12	12	12	16
41	38	40	39	30	32	31	22	27	24	14	16	15	19
42	42	44	43	33	36	34	24	31	28	17	18	17	22
43	47	47	47	35	40	37	27	35	31	19	21	20	25
44	50	50	50	39	43	41	31	37	34	21	23	22	28
45	53	55	54	40	48	44	34	43	38	24	28	26	31
46	57	61	59	46	51	48	37	48	42	29	33	31	34
47	61	64	63	51	55	53	41	50	45	32	39	36	38
48	67	69	68	55	59	57	46	55	50	37	43	41	43
49	71	73	72	61	64	62	50	59	55	43	48	46	46
50	75	78	77	66	69	67	55	66	60	46	51	49	50
51	79	82	81	71	71	71	59	70	65	50	55	52	54
52	83	85	84	77	77	77	65	75	70	54	58	56	57
53	87	88	88	80	81	81	71	80	76	59	62	61	62
54	90	91	90	84	84	84	75	83	79	64	67	66	66
55	92	92	92	87	88	87	79	86	83	69	72	71	70
56	94	94	94	89	90	89	82	90	86	75	75	75	74
57	95	96	95	92	91	92	85	92	88	80	81	80	77
58	97	97	97	93	92	93	87	93	90	84	84	84	81
59	97	97	97	95	94	95	90	95	92	87	86	87	84
60	97	98	98	96	95	95	92	96	94	89	88	89	86
61	98	98	98	96	96	96	94	97	95	91	90	91	89
62	98	99	99	97	96	97	95	98	96	93	93	93	91
63	98	99	99	98	96	97	96	98	97	95	94	94	92
64	99	99	99	99	97	98	97	98	98	97	94	95	94
65	99	99	99	99	98	98	98	99	99	98	95	96	95
66	99	99	99	99	98	99	98	99	99	98	97	97	96
67	99	99	99	99	99	99	99	99	99	98	97	98	97
68	99	99	99	99	99	99	99	99	99	99	98	99	98
69	99	99	99	99	99	99	99	99	99	99	99	99	98
70	99	99	99	99	99	99	99	99	99	99	99	99	98
71	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-4. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Paragraph Comprehension (PC)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
18	1	1	1	1	1	1	1	1	1	1	1	1	1
19	2	1	1	1	1	1	1	1	1	1	1	1	1
20	3	1	2	1	1	1	1	1	1	1	1	1	1
21	4	2	3	2	1	1	2	1	2	1	1	1	1
22	5	3	4	2	1	2	3	2	2	1	1	1	1
23	7	3	5	4	3	3	4	2	3	1	1	1	2
24	8	4	6	5	5	5	5	2	4	1	1	1	2
25	9	5	7	6	5	5	6	2	4	1	1	1	2
26	10	5	8	7	5	6	6	3	4	2	1	2	3
27	12	7	10	8	6	7	7	3	5	3	1	2	4
28	14	8	11	9	6	8	8	4	6	3	1	2	4
29	16	9	13	11	7	9	8	4	6	4	2	3	5
30	19	10	14	12	8	10	10	5	7	4	2	3	5
31	20	11	16	13	9	11	10	6	8	5	2	4	6
32	23	12	18	15	10	13	11	7	9	6	2	4	7
33	24	14	19	17	11	14	12	8	10	6	3	4	7
34	26	17	21	18	12	15	14	9	11	7	4	5	8
35	28	18	23	20	14	17	15	10	12	8	5	6	9
36	31	20	25	21	16	19	16	11	14	8	6	7	10
37	34	22	28	24	18	21	17	13	15	10	8	9	11
38	37	24	31	25	19	22	18	16	17	11	8	10	13
39	40	26	33	27	22	25	20	17	19	12	9	11	14
40	42	29	35	29	23	26	23	20	21	15	11	13	16
41	45	32	39	31	26	29	25	23	24	16	13	14	18
42	48	34	41	33	29	31	28	26	27	18	14	16	20
43	51	38	44	37	32	34	30	29	29	21	17	19	23
44	52	42	47	42	36	39	34	33	33	24	20	22	26
45	55	46	51	45	39	42	38	35	36	25	23	24	29
46	57	50	54	47	42	45	40	38	39	29	25	27	31
47	60	54	57	50	45	48	43	42	42	34	28	30	35
48	62	57	60	54	49	52	46	46	46	36	31	34	38
49	66	62	64	57	52	55	49	49	49	38	35	37	41
50	70	65	68	60	57	59	53	53	53	41	39	40	45
51	73	69	71	63	60	62	57	58	58	46	43	45	49
52	77	72	74	67	66	66	61	62	61	52	50	51	54
53	80	76	78	71	68	69	64	67	65	59	57	58	58
54	84	79	82	76	73	75	68	72	70	63	63	63	63
55	87	84	85	82	77	79	72	76	74	69	69	69	68
56	90	87	88	86	79	82	76	80	78	75	74	74	73
57	92	90	91	89	85	87	81	84	83	80	78	79	77
58	94	92	93	90	87	89	83	87	85	83	82	82	81
59	95	94	95	93	91	92	87	89	88	89	86	87	85
60	96	94	95	95	93	94	91	92	91	92	89	90	88
61	97	95	96	95	93	94	92	93	93	93	91	92	89
62	98	96	97	97	94	96	94	96	95	95	93	94	92
63	99	97	98	98	97	97	97	98	97	97	95	96	95
64	99	98	98	98	98	98	98	99	98	98	97	97	96
65	99	99	99	99	98	98	98	99	99	98	97	98	97
66	99	99	99	99	98	98	98	99	99	98	97	98	97
67	99	99	99	99	99	99	99	99	99	99	98	98	98
68	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-5. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Math Knowledge (MK)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
23	1	1	1	1	1	1	1	1	1	1	1	1	1
24	2	1	1	2	1	1	1	1	1	1	1	1	1
25	2	1	2	2	1	1	1	1	1	1	1	1	1
26	3	1	2	3	1	2	2	1	1	1	1	1	1
27	3	2	2	3	2	3	2	1	2	1	1	1	1
28	4	2	3	4	2	3	3	2	2	1	1	1	2
29	5	2	4	4	3	3	3	3	3	1	1	1	2
30	5	3	4	4	3	4	4	3	3	1	1	1	3
31	7	4	5	4	3	4	4	4	4	1	1	1	4
32	8	5	7	5	4	4	4	4	4	2	2	2	4
33	9	6	8	6	4	5	4	5	5	2	2	2	5
34	11	7	9	8	6	7	4	6	5	2	2	2	7
35	13	10	12	9	7	8	5	8	7	3	2	2	8
36	15	11	13	11	8	9	6	9	8	4	3	3	10
37	18	12	15	12	9	11	7	11	9	4	4	4	11
38	21	14	18	13	11	12	9	12	11	5	5	5	13
39	24	17	21	15	12	14	12	14	13	7	6	7	15
40	28	20	24	17	15	16	13	16	14	9	8	9	18
41	31	24	28	19	16	18	14	19	16	11	11	11	21
42	33	28	30	21	19	20	15	21	18	14	13	13	24
43	36	31	33	24	23	23	17	24	20	16	16	16	27
44	39	34	37	26	26	26	20	27	24	18	20	19	30
45	43	37	40	29	29	29	24	29	26	21	24	23	35
46	46	40	43	33	32	33	26	32	29	26	27	27	38
47	51	44	48	38	35	37	28	35	32	31	31	31	41
48	56	49	52	42	38	40	32	39	35	34	34	34	44
49	61	52	57	47	42	45	36	43	39	37	37	37	47
50	64	56	60	51	45	48	40	48	44	41	43	42	50
51	68	60	64	55	49	52	45	51	48	46	48	47	54
52	73	64	69	59	52	56	49	54	51	52	51	52	57
53	75	69	72	64	59	61	53	57	55	55	56	55	60
54	80	75	77	68	62	65	59	61	60	60	59	59	63
55	82	78	80	71	66	68	63	65	64	65	65	65	67
56	85	83	84	74	71	72	66	69	68	70	70	70	69
57	86	86	86	77	74	75	69	72	71	73	76	74	73
58	89	89	89	80	77	79	71	75	73	77	80	78	77
59	91	91	91	83	82	83	74	80	77	82	84	83	81
60	93	94	94	87	85	86	79	83	81	85	89	87	84
61	96	96	96	89	87	88	83	86	84	90	92	91	88
62	97	97	97	91	91	91	85	90	88	91	94	93	91
63	98	98	98	94	94	94	89	92	90	94	96	95	93
64	98	98	98	96	96	96	91	93	92	95	97	96	94
65	98	99	99	97	97	97	93	96	95	97	99	98	96
66	99	99	99	98	98	98	95	97	96	98	99	99	97
67	99	99	99	98	99	98	96	99	98	98	99	99	98
68	99	99	99	99	99	99	98	99	99	99	99	99	98
69	99	99	99	99	99	99	98	99	99	99	99	99	99
70	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-6. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Electronics Information (EI)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
22	1	1	1	1	1	1	1	1	1	1	1	1	1
23	2	1	1	1	1	1	1	1	1	1	1	1	1
24	2	1	2	1	2	1	1	1	1	1	1	1	1
25	4	2	3	1	2	2	1	1	1	1	1	1	1
26	6	3	4	2	3	2	2	1	1	1	1	1	1
27	6	4	5	2	3	3	2	2	2	1	1	1	1
28	7	5	6	3	4	3	3	2	2	1	1	1	2
29	8	7	8	4	5	4	3	3	3	1	1	1	2
30	10	8	9	5	6	5	4	3	3	1	2	1	2
31	11	9	10	5	8	7	5	5	5	1	3	2	3
32	13	10	12	7	9	8	7	6	6	1	4	3	4
33	14	13	13	7	10	9	8	7	7	2	5	3	5
34	15	15	15	9	13	11	9	8	8	2	6	4	6
35	18	18	18	10	16	13	9	10	10	2	7	5	7
36	20	21	21	12	18	15	10	13	11	3	9	6	8
37	22	26	24	13	21	17	11	15	13	3	10	7	9
38	25	30	27	17	24	20	12	20	16	4	12	8	11
39	28	34	31	19	29	24	13	25	19	5	15	10	13
40	31	39	35	21	34	28	15	29	22	6	18	12	16
41	34	45	39	23	40	32	16	34	25	7	23	15	19
42	36	51	43	27	47	37	18	40	29	8	26	18	21
43	40	56	48	31	52	41	20	47	34	10	31	21	24
44	45	61	53	34	57	45	23	52	37	13	36	25	28
45	49	68	59	38	62	50	26	57	41	15	41	29	32
46	53	73	63	41	68	54	30	63	46	17	48	34	35
47	57	79	68	47	72	60	34	67	50	20	53	38	39
48	60	83	71	53	79	66	38	74	56	26	58	43	44
49	65	87	76	59	83	70	43	79	61	28	69	50	49
50	69	90	79	64	88	76	49	85	67	32	75	55	54
51	74	92	83	67	91	79	54	90	72	36	80	59	59
52	77	93	85	70	93	81	58	92	75	40	85	63	64
53	80	94	87	74	95	84	62	94	78	44	87	67	68
54	82	95	89	77	96	86	66	95	80	48	89	70	71
55	84	96	90	79	97	88	69	96	82	53	91	73	74
56	86	97	91	82	97	89	73	96	85	58	93	76	77
57	88	98	93	85	97	91	75	97	86	62	95	79	79
58	89	98	93	87	98	92	78	98	88	65	96	81	82
59	90	98	94	89	98	93	81	98	90	70	97	84	84
60	92	99	95	91	98	95	84	98	91	73	98	86	86
61	93	99	96	93	99	96	85	99	92	77	99	88	88
62	94	99	96	93	99	96	87	99	93	79	99	89	89
63	95	99	97	95	99	97	90	99	95	82	99	91	91
64	96	99	98	96	99	98	91	99	95	86	99	93	92
65	98	99	99	96	99	98	92	99	96	87	99	93	93
66	98	99	99	96	99	98	93	99	96	89	99	94	94
67	98	99	99	97	99	98	94	99	97	91	99	95	95
68	99	99	99	97	99	98	94	99	97	92	99	96	95
69	99	99	99	97	99	99	95	99	98	92	99	96	96
70	99	99	99	98	99	99	96	99	98	93	99	97	97
71	99	99	99	98	99	99	97	99	98	94	99	97	97
72	99	99	99	99	99	99	98	99	99	96	99	98	98
73	99	99	99	99	99	99	98	99	99	97	99	98	98
74	99	99	99	99	99	99	99	99	99	97	99	99	99
75	99	99	99	99	99	99	99	99	99	98	99	99	99
76	99	99	99	99	99	99	99	99	99	98	99	99	99
77	99	99	99	99	99	99	99	99	99	98	99	99	99
78	99	99	99	99	99	99	99	99	99	98	99	99	99
79	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-7. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Auto and Shop Information (AS)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
25	1	1	1	1	1	1	1	1	1	1	1	1	1
26	2	2	2	1	1	1	1	1	1	1	1	1	1
27	2	3	2	1	1	1	1	1	1	1	1	1	1
28	2	4	3	1	2	1	1	1	1	1	1	1	1
29	3	5	4	2	2	2	2	2	2	1	1	1	1
30	4	6	5	2	4	3	2	3	2	1	2	1	1
31	6	7	6	3	6	4	2	3	3	1	2	1	2
32	6	10	8	4	7	6	2	5	4	1	3	2	2
33	8	12	10	5	10	8	3	8	5	1	4	2	3
34	10	17	13	6	13	10	4	11	7	1	5	3	4
35	12	21	16	7	18	13	6	13	9	1	8	4	6
36	14	26	20	9	22	15	7	17	12	1	11	6	7
37	17	31	24	11	26	19	9	23	16	2	14	8	9
38	20	37	28	13	31	22	11	28	20	3	18	11	12
39	24	44	34	15	38	26	15	33	24	4	21	13	14
40	26	52	39	20	45	32	17	40	28	5	26	16	18
41	30	59	44	23	52	37	19	46	32	7	32	20	20
42	33	66	49	26	59	42	21	53	37	9	37	24	24
43	38	73	55	30	65	47	24	60	42	11	41	27	27
44	44	78	61	35	71	53	27	66	46	13	47	31	31
45	48	82	64	38	77	58	31	72	51	16	51	35	35
46	54	85	69	43	81	61	35	77	56	20	57	39	39
47	59	88	73	48	85	66	38	83	60	23	61	43	43
48	63	92	77	51	89	70	42	85	63	28	68	49	47
49	68	94	80	55	91	73	47	88	67	31	72	53	51
50	71	96	83	59	93	76	53	91	72	34	78	57	56
51	74	97	85	63	95	79	56	93	74	37	81	60	59
52	76	98	87	68	96	82	60	97	78	41	86	65	63
53	81	99	90	71	98	84	64	98	81	46	89	69	66
54	84	99	91	74	98	86	68	98	83	49	92	72	69
55	85	99	92	78	99	88	72	99	85	54	94	75	72
56	88	99	93	81	99	90	76	99	87	57	96	78	75
57	90	99	95	84	99	92	78	99	89	62	97	80	78
58	91	99	95	86	99	93	81	99	91	66	98	83	80
59	93	99	96	89	99	94	83	99	91	69	99	84	82
60	94	99	97	90	99	95	86	99	93	71	99	86	84
61	96	99	98	92	99	96	88	99	94	74	99	87	86
62	97	99	98	93	99	96	89	99	95	76	99	89	88
63	97	99	99	94	99	97	91	99	95	81	99	91	90
64	98	99	99	96	99	98	92	99	96	84	99	92	91
65	98	99	99	96	99	98	93	99	96	86	99	93	93
66	98	99	99	98	99	99	94	99	97	89	99	95	94
67	99	99	99	98	99	99	95	99	98	91	99	96	95
68	99	99	99	99	99	99	96	99	98	92	99	96	96
69	99	99	99	99	99	99	96	99	98	93	99	97	96
70	99	99	99	99	99	99	97	99	98	94	99	97	97
71	99	99	99	99	99	99	97	99	99	94	99	97	98
72	99	99	99	99	99	99	98	99	99	95	99	97	98
73	99	99	99	99	99	99	99	99	99	96	99	98	98
74	99	99	99	99	99	99	99	99	99	98	99	99	99
75	99	99	99	99	99	99	99	99	99	98	99	99	99
76	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-8. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Mechanical Comprehension (MC)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
21	1	1	1	1	1	1	1	1	1	1	1	1	1
22	3	1	2	1	1	1	1	2	1	1	1	1	1
23	3	2	3	1	2	2	1	3	2	1	1	1	1
24	4	2	3	2	2	2	1	3	2	1	1	1	1
25	4	4	4	2	3	2	1	3	2	1	2	1	2
26	5	4	5	2	3	3	2	4	3	1	2	1	2
27	6	5	6	3	4	4	2	4	3	1	2	2	2
28	7	7	7	4	5	4	3	4	4	1	3	2	3
29	8	8	8	4	6	5	4	5	4	1	3	2	3
30	9	9	9	5	8	7	4	6	5	2	4	3	4
31	10	12	11	6	9	7	5	7	6	2	5	4	5
32	11	13	12	7	10	9	7	8	8	2	6	4	6
33	13	15	14	8	12	10	8	9	8	2	7	5	6
34	14	17	15	9	13	11	8	11	10	3	8	5	7
35	15	19	17	10	15	13	9	13	11	3	9	6	8
36	17	21	19	11	16	14	9	14	12	4	10	7	9
37	19	23	21	13	19	16	11	16	13	5	12	8	11
38	20	26	23	14	21	18	12	18	15	5	13	9	13
39	22	29	26	15	26	20	14	20	17	6	15	11	14
40	24	31	27	16	29	22	15	22	19	7	17	12	16
41	26	34	30	17	32	24	17	25	21	8	20	14	18
42	29	38	33	18	35	27	18	28	23	9	24	17	20
43	31	41	36	21	40	30	19	33	26	12	29	21	23
44	34	45	39	24	44	34	22	37	29	15	33	25	25
45	37	51	44	27	48	37	24	41	33	19	39	29	29
46	40	56	48	29	51	40	27	46	36	21	43	32	32
47	44	59	52	34	57	45	29	52	40	23	49	36	36
48	49	65	57	39	62	51	32	57	44	26	54	41	40
49	54	70	62	44	67	55	36	64	50	29	63	47	45
50	60	75	67	51	71	61	41	71	56	35	68	52	50
51	64	80	72	55	78	66	46	78	62	41	73	58	55
52	67	85	76	59	82	71	52	83	67	47	77	63	60
53	72	88	79	64	86	75	59	86	72	51	82	67	65
54	76	91	83	69	89	79	64	89	76	56	85	72	69
55	80	93	86	73	92	82	68	92	80	61	89	76	73
56	83	95	89	79	94	86	72	94	83	65	93	80	77
57	85	97	91	82	95	88	76	95	85	68	95	82	79
58	88	98	93	85	96	91	78	97	87	74	96	86	82
59	90	98	94	88	97	92	80	97	89	78	97	88	85
60	92	99	95	89	98	93	82	98	90	82	97	90	87
61	94	99	96	90	98	94	85	99	92	86	98	92	89
62	95	99	97	91	99	95	87	99	93	87	98	93	90
63	96	99	98	93	99	96	88	99	94	89	99	94	92
64	96	99	98	94	99	97	90	99	95	90	99	95	93
65	97	99	98	95	99	98	91	99	96	91	99	95	94
66	98	99	99	96	99	98	94	99	97	93	99	96	95
67	98	99	99	97	99	98	95	99	97	94	99	97	96
68	98	99	99	97	99	98	96	99	98	96	99	98	97
69	99	99	99	97	99	99	97	99	98	97	99	98	98
70	99	99	99	97	99	99	98	99	99	98	99	99	98
71	99	99	99	98	99	99	99	99	99	98	99	99	98
72	99	99	99	99	99	99	99	99	99	98	99	99	99
73	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-9. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Assembling Objects (AO)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
26	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	2	1	1	1	1	1	1	1	1
28	2	2	2	2	3	2	1	1	1	1	1	1	1
29	3	4	4	3	3	3	2	2	2	1	2	2	2
30	5	6	5	5	5	5	4	3	3	2	3	3	3
31	7	7	7	7	7	7	6	4	5	4	5	4	5
32	8	9	9	9	8	9	8	6	7	5	6	6	6
33	11	10	11	11	10	10	10	8	9	7	8	7	8
34	14	12	13	13	11	12	11	9	10	9	9	9	9
35	17	13	15	16	12	14	12	11	11	10	12	11	11
36	20	15	18	17	14	15	13	12	13	11	13	12	12
37	22	17	19	20	16	18	14	13	14	12	14	13	13
38	25	19	22	22	18	20	16	15	16	13	16	14	15
39	28	21	24	23	20	22	18	18	18	13	17	16	17
40	29	24	27	26	22	24	20	22	21	15	20	18	19
41	34	26	30	28	25	26	23	24	23	18	22	20	21
42	38	29	34	31	27	29	25	27	26	20	25	23	24
43	42	33	38	34	29	32	28	31	29	22	27	25	27
44	47	37	42	37	32	35	31	35	33	24	33	29	30
45	50	40	45	40	35	38	34	37	35	27	34	31	33
46	53	43	48	42	38	40	36	40	38	30	36	33	35
47	55	47	51	45	41	43	39	43	41	31	38	35	38
48	57	51	54	48	45	46	42	46	44	36	41	39	40
49	60	54	57	52	48	50	45	49	47	39	45	42	43
50	63	56	60	54	50	52	47	51	49	44	48	46	46
51	66	61	63	57	55	56	50	55	53	48	51	50	50
52	68	64	67	60	59	59	52	59	56	51	54	52	53
53	71	69	70	62	61	62	55	64	59	56	59	57	58
54	74	72	73	66	66	66	59	68	64	59	64	61	62
55	77	77	77	68	71	70	65	74	69	64	68	66	67
56	81	82	81	73	76	74	68	77	73	69	75	72	72
57	84	85	85	77	80	79	72	82	77	74	80	77	76
58	87	89	88	81	85	83	76	86	81	78	85	82	80
59	89	91	90	84	87	85	80	87	84	80	89	85	83
60	91	94	92	87	89	88	83	90	87	82	91	87	86
61	94	95	94	89	91	90	86	92	89	86	93	90	88
62	95	96	95	93	93	93	89	95	92	89	95	92	91
63	97	97	97	96	95	95	91	96	94	91	96	93	93
64	98	98	98	97	96	97	94	97	95	92	97	95	94
65	98	99	99	98	97	97	95	98	97	93	97	95	96
66	99	99	99	98	98	98	98	99	98	95	98	96	97
67	99	99	99	99	99	99	98	99	99	97	99	98	98
68	99	99	99	99	99	99	99	99	99	98	99	98	98
69	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-10. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Subtest Verbal (VE = WK + PC)**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
19	1	1	1	1	1	1	1	1	1	1	1	1	1
20	2	1	1	1	2	2	1	1	1	1	1	1	1
21	3	2	2	1	2	2	1	1	1	1	1	1	1
22	3	3	3	1	2	2	1	1	1	1	1	1	1
23	4	3	3	2	3	2	2	1	2	1	1	1	1
24	5	3	4	2	3	3	2	2	2	1	1	1	1
25	6	4	5	3	3	3	3	2	2	1	1	1	2
26	7	5	6	4	4	4	3	3	3	1	1	1	2
27	8	6	7	4	4	4	4	4	4	1	1	1	3
28	10	7	8	6	5	5	4	4	4	2	1	2	3
29	12	8	10	6	6	6	5	4	5	2	1	2	4
30	14	9	11	7	7	7	6	5	5	2	2	2	4
31	17	11	14	9	8	8	7	6	6	3	3	3	5
32	19	12	16	10	9	10	8	6	7	3	4	3	6
33	21	14	18	11	11	11	10	7	8	3	4	4	6
34	23	16	19	15	13	14	11	8	10	5	5	5	7
35	26	18	22	17	15	16	12	10	11	5	5	5	8
36	28	21	24	20	18	19	13	12	12	6	6	6	9
37	32	25	29	22	20	21	15	14	14	7	7	7	11
38	35	28	32	24	22	23	17	17	17	8	8	8	12
39	37	31	34	26	25	26	19	20	19	11	10	10	14
40	40	36	38	28	29	28	21	22	22	14	12	13	17
41	43	38	41	31	31	31	23	25	24	16	14	15	19
42	46	42	44	33	34	34	26	28	27	17	16	17	22
43	49	44	47	38	37	37	28	33	30	19	18	19	24
44	51	48	49	40	41	41	31	36	34	23	21	22	27
45	56	51	54	44	44	44	35	40	37	25	25	25	30
46	59	56	58	48	48	48	39	45	42	28	28	28	34
47	65	60	63	52	51	52	42	48	45	32	33	32	37
48	68	65	67	58	56	57	47	52	49	34	37	36	40
49	71	70	70	61	60	61	51	56	54	39	42	41	44
50	75	74	75	65	65	65	56	61	58	45	49	47	48
51	77	78	78	69	69	69	60	66	63	49	53	51	53
52	81	83	82	72	73	73	63	70	67	55	56	56	56
53	86	86	86	77	77	77	68	75	72	60	61	60	61
54	88	88	88	80	81	81	72	81	76	65	65	65	65
55	91	90	91	86	84	85	77	84	81	70	70	70	69
56	93	93	93	88	86	87	81	87	84	74	76	75	73
57	95	94	95	91	90	90	84	91	87	80	81	80	76
58	96	95	96	94	92	93	86	92	89	84	84	84	80
59	97	97	97	95	93	94	89	93	91	89	86	87	84
60	98	97	97	96	94	95	92	95	93	92	88	90	86
61	98	97	98	97	95	96	94	96	95	93	90	92	89
62	98	99	99	98	96	97	95	97	96	95	92	93	91
63	99	99	99	98	97	97	96	98	97	96	93	94	93
64	99	99	99	98	97	98	97	99	98	96	95	96	94
65	99	99	99	99	98	98	98	99	99	98	97	97	96
66	99	99	99	99	98	99	99	99	99	98	98	98	97
67	99	99	99	99	99	99	99	99	99	99	98	99	98
68	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-11. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Math Skills Composite**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
21	1	1	1	1	1	1	1	1	1	1	1	1	1
22	2	1	1	1	1	1	1	1	1	1	1	1	1
23	2	1	2	2	2	2	1	1	1	1	1	1	1
24	3	1	2	2	2	2	2	1	1	1	1	1	1
25	3	2	3	3	3	3	2	2	2	1	1	1	1
26	4	2	3	3	4	3	3	2	3	1	1	1	2
27	6	3	4	3	4	4	3	2	3	1	1	1	2
28	7	4	6	4	4	4	5	3	4	1	1	1	3
29	8	5	6	5	5	5	5	3	4	1	1	1	3
30	9	5	7	5	6	6	6	3	5	2	1	1	3
31	10	6	8	6	6	6	6	4	5	2	1	1	4
32	11	8	10	7	6	6	7	5	6	2	1	1	5
33	13	9	11	7	8	7	7	6	7	2	1	2	5
34	14	11	13	9	8	8	8	8	8	3	1	2	6
35	15	13	14	9	10	10	9	9	9	3	2	3	8
36	19	14	17	11	12	11	10	10	10	4	2	3	9
37	22	17	20	13	13	13	11	12	11	4	4	4	11
38	24	20	22	15	15	15	12	14	13	7	6	6	13
39	26	22	24	16	17	17	14	16	15	9	7	8	15
40	29	26	27	19	20	19	15	19	17	9	9	9	17
41	30	28	29	20	20	20	15	20	18	10	11	11	19
42	34	31	32	22	23	23	17	22	19	12	13	13	22
43	36	34	35	27	27	27	19	26	22	14	17	15	25
44	40	38	39	30	31	31	21	31	26	15	20	18	28
45	45	43	44	34	35	34	25	34	30	19	24	22	32
46	50	48	49	37	38	38	27	38	33	22	30	26	36
47	54	52	53	41	42	42	30	44	37	25	35	30	40
48	60	56	58	46	46	46	34	47	41	30	39	35	44
49	64	63	63	52	51	51	40	50	45	36	43	40	47
50	66	66	66	54	53	54	43	52	48	39	46	43	50
51	69	71	70	60	57	59	49	58	53	44	53	49	54
52	73	75	74	64	63	63	52	63	58	50	58	54	58
53	76	79	78	66	67	67	57	68	62	55	64	60	62
54	79	83	81	71	71	71	61	73	67	61	69	65	66
55	82	85	84	74	75	74	65	76	71	68	75	71	71
56	85	88	86	77	77	77	69	79	74	72	78	75	74
57	88	89	89	80	80	80	73	80	77	77	82	80	77
58	90	92	91	82	83	82	76	83	79	79	85	82	80
59	92	94	93	83	87	85	79	85	82	83	88	85	83
60	93	95	94	84	88	86	81	86	83	85	90	87	84
61	94	96	95	88	90	89	82	88	85	87	92	90	87
62	95	98	96	90	92	91	84	89	87	89	94	92	89
63	96	98	97	93	94	93	87	93	90	92	95	94	91
64	98	99	98	94	96	95	89	95	92	94	96	95	93
65	98	99	99	95	97	96	92	96	94	96	98	97	95
66	99	99	99	96	98	97	94	99	96	97	99	98	96
67	99	99	99	98	99	98	96	99	98	98	99	99	97
68	99	99	99	99	99	99	97	99	98	98	99	99	98
69	99	99	99	99	99	99	97	99	99	99	99	99	98
70	99	99	99	99	99	99	98	99	99	99	99	99	99
71	99	99	99	99	99	99	98	99	99	99	99	99	99
72	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-12. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Verbal Skills Composite**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
19	1	1	1	1	1	1	1	1	1	1	1	1	1
20	2	1	1	1	2	2	1	1	1	1	1	1	1
21	3	2	2	1	2	2	1	1	1	1	1	1	1
22	3	3	3	1	2	2	1	1	1	1	1	1	1
23	4	3	3	2	3	2	2	1	2	1	1	1	1
24	5	3	4	2	3	3	2	2	2	1	1	1	1
25	6	4	5	3	3	3	3	2	2	1	1	1	2
26	7	5	6	4	4	4	3	3	3	1	1	1	2
27	8	6	7	4	4	4	4	4	4	1	1	1	3
28	10	7	8	6	5	5	4	4	4	2	1	2	3
29	12	8	10	6	6	6	5	4	5	2	1	2	4
30	14	9	11	7	7	7	6	5	5	2	2	2	4
31	17	11	14	9	8	8	7	6	6	3	3	3	5
32	19	12	16	10	9	10	8	6	7	3	4	3	6
33	21	14	18	11	11	11	10	7	8	3	4	4	6
34	23	16	19	15	13	14	11	8	10	5	5	5	7
35	26	18	22	17	15	16	12	10	11	5	5	5	8
36	28	21	24	20	18	19	13	12	12	6	6	6	9
37	32	25	29	22	20	21	15	14	14	7	7	7	11
38	35	28	32	24	22	23	17	17	17	8	8	8	12
39	37	31	34	26	25	26	19	20	19	11	10	10	14
40	40	36	38	28	29	28	21	22	22	14	12	13	17
41	43	38	41	31	31	31	23	25	24	16	14	15	19
42	46	42	44	33	34	34	26	28	27	17	16	17	22
43	49	44	47	38	37	37	28	33	30	19	18	19	24
44	51	48	49	40	41	41	31	36	34	23	21	22	27
45	56	51	54	44	44	44	35	40	37	25	25	25	30
46	59	56	58	48	48	48	39	45	42	28	28	28	34
47	65	60	63	52	51	52	42	48	45	32	33	32	37
48	68	65	67	58	56	57	47	52	49	34	37	36	40
49	71	70	70	61	60	61	51	56	54	39	42	41	44
50	75	74	75	65	65	65	56	61	58	45	49	47	48
51	77	78	78	69	69	69	60	66	63	49	53	51	53
52	81	83	82	72	73	73	63	70	67	55	56	56	56
53	86	86	86	77	77	77	68	75	72	60	61	60	61
54	88	88	88	80	81	81	72	81	76	65	65	65	65
55	91	90	91	86	84	85	77	84	81	70	70	70	69
56	93	93	93	88	86	87	81	87	84	74	76	75	73
57	95	94	95	91	90	90	84	91	87	80	81	80	76
58	96	95	96	94	92	93	86	92	89	84	84	84	80
59	97	97	97	95	93	94	89	93	91	89	86	87	84
60	98	97	97	96	94	95	92	95	93	92	88	90	86
61	98	97	98	97	95	96	94	96	95	93	90	92	89
62	98	99	99	98	96	97	95	97	96	95	92	93	91
63	99	99	99	98	97	97	96	98	97	96	93	94	93
64	99	99	99	98	97	98	97	99	98	96	95	96	94
65	99	99	99	99	98	98	98	99	99	98	97	97	96
66	99	99	99	99	98	99	99	99	99	98	98	98	97
67	99	99	99	99	99	99	99	99	99	99	98	99	98
68	99	99	99	99	99	99	99	99	99	99	99	99	99

**Table A-13. Male (M), Female (F), Combined-Gender (C), and Youth Population (YP) Norms for the ASVAB Science and Technical Skills Composite**

<u>SSS</u>	<u>10th grade</u>			<u>11th grade</u>			<u>12th grade</u>			<u>Post Secondary</u>			<u>YP</u>
	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	<u>M</u>	<u>F</u>	<u>C</u>	
22	1	1	1	1	1	1	1	1	1	1	1	1	1
23	2	1	1	1	1	1	1	1	1	1	1	1	1
24	3	2	2	1	2	1	1	1	1	1	1	1	1
25	3	2	3	2	2	2	1	1	1	1	1	1	1
26	4	3	4	2	3	3	1	2	2	1	1	1	1
27	5	4	5	3	4	4	2	3	2	1	1	1	1
28	6	5	6	3	5	4	2	3	3	1	1	1	2
29	8	7	8	4	6	5	3	4	4	1	1	1	2
30	9	9	9	4	6	5	4	5	4	1	1	1	3
31	11	10	10	5	8	7	4	5	5	1	2	1	4
32	12	11	12	6	9	8	6	7	6	1	3	2	5
33	13	12	12	8	10	9	7	8	7	1	4	3	6
34	15	16	15	9	11	10	8	11	9	2	6	4	7
35	17	18	17	10	14	12	10	12	11	2	7	5	9
36	19	22	20	11	16	14	11	14	12	3	8	5	10
37	21	26	23	13	20	17	12	16	14	5	11	8	12
38	24	29	27	14	23	19	12	19	16	6	14	10	13
39	25	32	28	16	26	20	13	21	17	7	16	12	15
40	28	37	33	18	29	24	15	25	20	9	19	14	17
41	30	41	36	21	35	28	17	29	23	10	24	18	20
42	33	44	38	23	38	30	19	32	25	11	27	19	22
43	38	49	43	24	42	33	21	36	29	13	32	23	25
44	41	54	47	29	47	38	23	42	33	15	37	26	28
45	43	57	50	31	51	41	24	47	36	17	40	29	31
46	49	61	55	36	55	46	28	53	40	21	45	34	35
47	53	68	60	42	61	51	31	61	46	23	50	37	38
48	56	73	64	45	66	55	34	65	50	25	54	41	42
49	61	79	69	49	72	61	40	72	56	30	61	47	46
50	64	83	73	56	78	67	43	76	60	34	69	53	51
51	68	86	77	61	81	71	48	81	64	39	76	58	56
52	72	89	80	64	84	74	52	84	68	42	78	61	59
53	77	91	84	67	87	77	57	87	72	46	83	65	64
54	80	93	86	73	90	81	61	90	76	51	88	71	69
55	83	95	88	75	92	83	65	92	78	56	89	73	71
56	84	96	90	79	94	87	69	93	81	62	90	77	75
57	86	97	91	82	97	89	74	95	84	65	93	80	79
58	87	98	92	85	97	91	76	96	86	68	94	82	81
59	90	98	94	88	98	93	79	98	88	73	95	85	84
60	92	99	95	90	98	94	82	99	90	77	97	88	86
61	93	99	96	90	99	94	84	99	91	80	97	89	88
62	94	99	97	94	99	96	87	99	93	85	98	92	90
63	96	99	98	95	99	97	89	99	94	88	98	93	92
64	97	99	98	95	99	97	89	99	94	90	99	95	93
65	98	99	99	96	99	98	93	99	96	92	99	96	94
66	99	99	99	97	99	98	95	99	97	94	99	97	95
67	99	99	99	97	99	98	95	99	97	94	99	97	96
68	99	99	99	97	99	99	96	99	98	96	99	98	97
69	99	99	99	98	99	99	97	99	99	97	99	98	97
70	99	99	99	98	99	99	97	99	99	97	99	99	98
71	99	99	99	98	99	99	98	99	99	97	99	99	98
72	99	99	99	99	99	99	98	99	99	98	99	99	99
73	99	99	99	99	99	99	98	99	99	98	99	99	99
74	99	99	99	99	99	99	99	99	99	99	99	99	99