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Howard L. Madden
Lonnie D. Valentine, Jr.

PERSONNEL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
AIR FORCE SYSTEMS COMMAND
Lackland Air Force Base, Texas

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FOREWORD

Materials required for administration, scoring, and interpretation of the Employee Aptitude Survey were obtained through the usual commercial channels. The data resulting from these administrations are available for further research.

The study was accomplished under Project 7719, Development of Procedures for Increasing the Efficiency of Selection, Evaluation, and Utilization of Air Force Personnel; Task 771906, Improvement of Present, and Development of New, Selection and Classification Procedures.

This report has been reviewed and is approved.

James H. Ritter, Colonel USAF
Commander

J.W. Bowles
Technical Director

ABSTRACT

In the high school testing program conducted by the USAF Recruiting Service there is occasional reference to relationships between the Airman Qualifying Examination and certain civilian tests. Information concerning these relationships can be useful to guidance counselors. This report contains data on the relationships between the Employee Aptitude Survey and the Airman Qualifying Examination. Conversion tables for estimation of EAS scores from AQE aptitude indexes and subtest scores are presented, as well as tables for estimation of AQE aptitude indexes from EAS scores. The two batteries appear to measure essentially similar abilities.

TABLE OF CONTENTS

LIST OF TABLES

List of Tables *(Continued)*

CONVERSION TABLES FOR AIRMAN QUALIFYING EXAMINATION AND EMPLOYEE APTITUDE SURVEY SCORES

I. INTRODUCTION

Since April 1958, the Airman Qualifying Examination (AQE) has been used by the USAF Recruiting Service for selection and classification of non-prior-service applicants for voluntary enlistment in the Air Force. Beginning in late 1962, use of the AQE was extended into a high school testing program which made the test and its scores available to participating schools. The AQE is a job-oriented test which is applicable to Air Force job training specialties. Since a number of these specialties are directly related to civilian job areas, AQE scores have some utility and implications for vocational guidance, whether or not the high school student plans a military career.

The AQE is customarily standardized on samples of 1,000 enlistees per composite score, normed against Project TALENT data with its base of 400,000 persons, and validated on samples of Air Force technical training course graduates ranging in numbers from 100 to 1,000. In addition to the normative data, information concerning relationships between the AQE and other aptitude batteries has proved useful to high school counselors for comparative purposes.

In an earlier paper (Madden, Valentine, & Tupes, 1966), relationships between the AQE and the Differential Aptitude Tests were reported. The present paper, which is the second in a series inaugurated with that report, presents data on relationships between AQE and Employee Aptitude Survey (EAS) variables. Methods employed in this study, along with technical data on outcomes, are reported in the appendix.

II. ESTIMATION OF AQE APTITUDE INDEXES FROM EAS SCORES

Using appropriate regression equations, AQE aptitude indexes (AIs) were estimated from EAS scores for each subject in the study. From distributions of these estimated AQE AIs and distributions of the obtained AIs, equipercentile conversion tables were developed for use in estimating AQE AIs from EAS scores. These conversions are presented in Tables 1 through 4.

To use these tables, the EAS Composite must be computed according to the equation given in footnote a of each table. This computed value is then located within the score ranges shown in the EAS Composite column of the table; the corresponding value in the AQE column is the best estimate of the examinee's score on that AQE aptitude index. For example, suppose that an examinee's EAS Mechanical Composite is 144 (computed on the basis of the equation in the footnote of Table 1). Since this composite score falls within the 143-149 range shown in the first column of Table 1 (i.e., EAS Composite column), the corresponding AQE Mechanical value, 70, would be the best estimate of the examinee's AQE Mechanical AI.

Similar data are presented in Tables 5 through 12 for estimation of EAS scores from AQE AIs and subtest scores. The procedures described for use of Tables 1 through 4 also apply to use of these tables.

Table 1. **Estimation of AQE Mechanical Aptitude Index from EAS Mechanical Composite**

EAS[a] Composite	AQE[b] Mechanical	EAS Composite	AQE Mechanical	EAS Composite	AQE Mechanical
235 & Above	95	127–133	60	68–77	25
188–234	90	120–126	55	59–67	20
167–187	85	112–119	50	47–58	15
161–166	80	106–111	45	37–46	10
150–160	75	100–105	40	29–36	5
143–149	70	88– 99	35	28 & Below	1
134–142	65	78– 87	30		

[a]EAS Mechanical Composite = 3 (Verb. Comp.) + 3 (Vis. Pursuit) + 2 (Space Vis.)
[b]Correlation with EAS Composite = .60

Table 2. **Estimation of AQE Administrative Aptitude Index from EAS Administrative Composite**

EAS[a] Composite	AQE[b] Administrative	EAS Composite	AQE Administrative	EAS Composite	AQE Administrative
109 & Above	95	60–62	60	33–39	25
90–108	90	56–59	55	28–32	20
82– 89	85	53–55	50	23–27	15
76– 81	80	50–52	45	18–22	10
72– 75	75	48–49	40	13–17	5
69– 71	70	44–47	35	12 & Below	1
63– 68	65	40–43	30		

[a]EAS Administrative Composite = Verb. Comp. + Num. Ability + Num. Reas.
[b]Correlation with EAS Composite = .80

Table 3. **Estimation of AQE General Aptitude Index from EAS General Composite**

EAS[a] Composite	AQE[b] General	EAS Composite	AQE General	EAS Composite	AQE General
200 & Above	95	103–109	60	46–59	25
154–199	90	95–102	55	40–45	20
137–153	85	90– 94	50	25–39	15
126–136	80	83– 89	45	18–24	10
121–125	75	78– 82	40	0–18	5
116–120	70	69– 77	35	−1 & Below	1
110–115	65	60– 68	30		

[a]EAS General Composite = 3 (Verb. Comp.) + 3 (Num. Reas.) + Num. Ability
[b]Correlation with EAS Composite = .80

Table 4. **Estimation of AQE Electronics Aptitude Index from EAS Electronics Composite**

EAS[a] Composite	AQE[b] Electronics	EAS Composite	AQE Electronics	EAS Composite	AQE Electronics
288 & Above	95	160–168	60	102–109	25
220–287	90	153–159	55	94–101	20
204–219	85	146–152	50	83– 93	15
194–203	80	138–145	45	66– 82	10
184–193	75	129–137	40	33– 65	5
178–183	70	116–128	35	32 & Below	1
169–177	65	110–115	30		

[a]EAS Electronics Composite = 3 (Verb. Comp.) + 2 (Num. Ability) + 2 (Space Vis.)

[b]Correlation with EAS Composite = .76

Table 5. **Estimation of EAS Verbal Comprehension Score from AQE General Aptitude Index**

AQE[a] General	EAS[b] Verbal Comprehension	AQE General	EAS Verbal Comprehension	AQE General	EAS Verbal Comprehension
95	29	60	13	25	4
90	22	55	12	20	3
85	19	50	11	15	2
80	17	45	10	10	0
75	16	40	9	5	−1
70	15	35	8	1	−2
65	14	30	6		

[a]For practical purposes, the AQE General Aptitude Index is about as efficient in its prediction as the best combination of all aptitude indexes.

[b]Correlation with AQE General AI = .66

Table 6. **Estimation of EAS Numerical Ability Score from AQE Numerical Ability Composite**

AQE[a] Composite	EAS[b] Numerical Ability	AQE Composite	EAS Numerical Ability	AQE Composite	EAS Numerical Ability
380 & Above	67	275–279	40	135–144	22
375–379	61	270–274	39	130–134	21
370–374	60	265–269	38	125–129	20
365–369	59	250–264	37	120–124	19
360–364	56	245–249	36	115–119	18
355–359	55	235–244	35	110–114	17
350–354	54	230–234	34	100–109	16
345–349	51	225–229	33	95– 99	15
335–344	50	215–224	32	90– 94	14
330–334	49	210–214	31	85– 89	13
325–329	48	200–209	30	80– 84	12
320–324	47	195–199	29	75– 79	11
315–319	46	185–194	28	70– 74	10
310–314	45	180–184	27	60– 69	9
300–309	44	170–179	26	55– 59	8
295–299	43	160–169	25	48– 54	7
290–294	42	155–159	24	45– 47	6
280–289	41	145–154	23	18– 44	5

[a]AQE Numerical Ability Composite = 3 (Admin.) + Elec.

[b]Correlation with AQE Numerical Ability Composite = .75

Table 7. **Estimation of EAS Visual Pursuit Score from AQE Visual Pursuit Composite**

AQE[a] Composite	EAS[b] Visual Pursuit	AQE Composite	EAS Visual Pursuit	AQE Composite	EAS Visual Pursuit
190 & Above	27	110–119	14	60–64	5
185–189	21	105–109	13	55–59	4
180–184	20	95–104	12	50–54	3
175–179	19	90– 94	11	45–49	2
160–174	18	80– 89	10	40–44	1
145–159	17	75– 79	9	35–39	0
135–144	16	70– 74	8	16–34	–1
120–134	15	65– 69	7	11–15	–4

[a]AQE Visual Pursuit Composite = Mech. + Elec.

[b]Correlation with AQE Visual Pursuit Composite = .50

Table 8. **Estimation of EAS Visual Speed and Accuracy Score from AQE Administrative Aptitude Index**

AQE[a] Administrative	EAS[b] Visual Speed and Accuracy	AQE Administrative	EAS Visual Speed and Accuracy	AQE Administrative	EAS Visual Speed and Accuracy
95	148	60	86	25	60
90	117	55	83	20	55
85	105	50	80	15	49
80	98	45	77	10	43
75	94	40	75	5	37
70	92	35	71	1	34
65	88	30	68		

[a]For practical purposes, the AQE Administrative Aptitude Index is about as efficient in its prediction as the best combination of all Aptitude Indexes.

[b]Correlation with AQE Administrative AI = .41

Table 9. **Estimation of EAS Space Visualization Score from AQE Space Visualization Composite**

AQE[a] Composite	EAS[b] Space Visualization	AQE Composite	EAS Space Visualization	AQE Composite	EAS Space Visualization
285 & Above	50	180–189	25	85–89	10
280–284	39	170–179	24	80–84	9
275–279	38	160–169	23	75–79	8
270–274	37	150–159	22	70–74	7
265–269	36	145–149	21	65–69	6
260–264	35	140–144	20	60–64	5
255–259	34	130–139	19	55–59	4
250–254	33	125–129	18	50–54	2
245–249	32	120–124	17	45–49	1
235–244	31	115–119	16	40–44	0
225–234	30	110–114	15	31–39	–1
215–224	29	105–109	14	30	–4
205–214	28	100–104	13	21–29	–7
195–204	27	95– 99	12		
190–194	26	90– 94	11		

[a]AQE Space Visualization Composite = 2 (Elec.) + Mech.

[b]Correlation with AQE Space Visualization Composite = .57

Table 10. **Estimation of EAS Numerical Reasoning Score from AQE Numerical Reasoning Composite**

AQE[a] Composite	EAS[b] Numerical Reasoning	AQE Composite	EAS Numerical Reasoning	AQE Composite	EAS Numerical Reasoning
190 & Above	20	110–124	9	45–54	2
185–189	15	100–109	8	40–44	1
180–184	14	90– 99	7	35–39	0
170–179	13	80– 89	6	30–34	–1
155–169	12	70– 79	5	25–29	–2
140–154	11	65– 69	4	20–24	–3
125–139	10	55– 64	3	16–19	–4

[a]AQE Numerical Reasoning Composite = Gen. + Elec.

[b]Correlation with AQE Numerical Reasoning Composite = .65

Table 11. **Estimation of EAS Verbal Reasoning Score from AQE Verbal Reasoning Composite**

AQE[a] Composite	EAS[b] Verbal Reasoning	AQE Composite	EAS Verbal Reasoning	AQE Composite	EAS Verbal Reasoning
285 & Above	27	170–184	13	80–84	3
280–284	22	160–169	12	75–79	2
275–279	21	146–159	11	70–74	1
265–274	20	135–145	10	65–69	0
255–264	19	130–134	9	60–64	–1
245–254	18	115–129	8	55–59	–2
235–244	17	110–114	7	35–54	–3
225–234	16	100–109	6	31–34	–4
205–224	15	95– 99	5	30	–5
185–204	14	85– 94	4	17–29	–7

[a]AQE Verbal Reasoning Composite = 2 (Gen.) + Elec.

[b]Correlation with AQE Verbal Reasoning Composite = .56

Table 12. **Estimation of EAS Symbolic Reasoning Score from AQE Symbolic Reasoning Composite**

AQE[a] Composite	EAS[b] Symbolic Reasoning	AQE Composite	EAS Symbolic Composite	AQE Composite	EAS Symbolic Reasoning
190 & Above	27	145–149	9	50–59	0
185–189	19	130–144	8	40–49	–1
180–184	16	120–129	7	35–39	–2
175–179	15	110–119	6	30–34	–3
170–174	14	95–109	5	20–29	–4
165–169	13	90– 94	4	16–19	–5
160–164	12	80– 89	3	15	–6
155–159	11	70– 79	2	11–14	–8
150–154	10	60– 69	1		

[a]AQE Symbolic Reasoning Composite = Admin. + Elec.
[b]Correlation with AQE Symbolic Reasoning Composite = .56

III. CONCLUSIONS

There is a moderate positive relationship between ability measures obtained from the AQE and the EAS. Because of this relationship, it is possible to estimate performance on one of the batteries from knowledge of performance on the other. Tables are presented for use in making such estimates.

APPENDIX

DATA COLLECTION AND ANALYSIS

Eight of the ten EAS tests, along with AQE-62, were administered to two samples of Air Force enlistees in 1963; EAS Word Fluency and Manual Speed were not administered. The first sample was collected in April, a month in which the enlisted input is traditionally at a low point in tested ability; the second sample was collected in September, a month in which aptitude scores are characteristically high (Lecznar, 1962). Of the 494 examinees in the April sample, 67 per cent were high school graduates, while 87 per cent of the 471 examinees in the September sample had completed high school.

For each of the two samples, the EAS and the AQE were given in counterbalanced order to control for practice effects. Each of the two samples was divided into high school graduate and high school non-graduate subgroups, and descriptive statistics were computed for each of these subgroups. These statistics may be compared with the publisher's reported norms on civilian samples.

Pre-enlistment test data (i.e., AQE aptitude indexes and Armed Forces Qualification Test scores) were obtained for all subjects and added to their data files. For the total samples ($N = 965$), intercorrelations were computed for the EAS tests, the operationally administered pre-enlistment test scores, and the experimentally administered AQE subtests and aptitude indexes.

A series of multiple regression problems were computed to predict (*a*) each AQE aptitude index from the EAS tests, (*b*) each EAS test from the AQE aptitude indexes, and (*c*) each EAS test from the AQE subtests.

The experimentally administered AQE scores were used in these analyses since the AQE and the EAS had been counterbalanced for this administration. Thus, these scores were considered more appropriate than the operationally obtained scores for establishing comparable levels on the two batteries since it was assumed that practice effect from the operational testing would affect both the EAS and the AQE equally.

Finally, integer-weight prediction equations derived from the regression analyses were used to compute predictions of EAS scores from AQE aptitude indexes and AQE aptitude indexes from EAS scores. In addition, equipercentile conversion tables were established to permit estimation of scores on the EAS or the AQE from obtained scores on the other battery. For the sake of simplicity, tables for estimating EAS scores were based on a single aptitude index wherever possible. Tables for estimating EAS scores from AQE subtests were not prepared since AQE subtests normally are not scored separately; consequently, subtest scores will not be available for use unless provisions for additional scoring are made.

RESULTS

Table 13 presents summary statistics for the two Air Force samples (April and September 1963) on the EAS tests and AQE aptitude indexes. These data are presented separately for high school graduates and high school non-graduates. While the differences are generally small, it is noted that the mean scores for the April high school graduates are generally a little lower than those for the September high school graduates. The reverse is true for the high school non-graduates; i.e., the mean scores for the September group are generally a little lower than those for the April group.

Table 14 reports the complete matrix of intercorrelations of EAS and AQE variables for the combined April and September samples.

From this matrix a series of iterative regression problems were computed for prediction of (*a*) EAS scores from AQE AIs, (*b*) EAS scores from AQE subtests scores, and (*c*) AQE AIs from EAS scores. Table 15 reports results of the regression problems for prediction of EAS scores from AQE AIs, and Table 16 reports results of the problems for prediction of EAS scores from AQE subtest scores. In these tables, the first column identifies the EAS or AQE AI being predicted; the second column lists the best combination of predictor variables. The entries in the columns headed R^2 and R are the squared correlation and the correlation between the test being predicted and the best combination of predictor variables listed through that point in the table for predicting the criterion. For example, it is apparent from Table 16 that the correlation between EAS Visual Pursuit and the best combination of predictors (i.e., AQE Mechanical Principles and Pattern Comprehension) is .52; the correlation between EAS Visual Pursuit and these two subtests with Hidden Figures added is .53.

From Table 15 it is apparent that there is generally very little improvement in prediction of EAS scores from the most highly related AQE AI when an additional AQE AI is added to the prediction system. It is also apparent that the correlations between EAS scores and the most highly related AQE AI are generally moderate; nevertheless, the relationships are high enough to allow for a reasonably good estimate of the EAS score from the AQE AI.

Table 17 summarizes results of regression problems to predict AQE aptitude indexes from EAS scores. It is apparent from this table that the multiple correlations are generally high, and that the EAS variables making up the composites appear to be logical components of the particular aptitude being predicted.

Table 13. **Summary Statistics for Two Air Force Enlistee Groups on Employee Aptitude Survey and Airman Qualifying Examination Variables**

	April 1963 Enlistees				September 1963 Enlistees			
	HS Grad (N = 329)		Non-Grad (N = 165)		HS Grad (N = 411)		Non-Grad (N = 60)	
Variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Employee Aptitude Survey								
Verbal Comprehension	13.61	5.51	11.46	4.51	13.63	5.24	10.34	3.78
Numerical Ability	32.89	13.11	26.42	11.16	35.78	12.31	26.32	9.06
Visual Pursuit	13.84	5.88	13.07	5.65	14.11	5.72	12.20	5.09
Visual Speed & Accuracy	81.15	17.39	73.60	15.74	83.93	16.89	72.79	15.76
Space Visualization	23.90	10.23	22.43	8.62	24.68	10.18	21.10	8.72
Numerical Reasoning	9.00	3.92	8.16	3.56	9.74	3.75	7.26	3.85
Verbal Reasoning	12.59	6.19	11.57	5.49	13.71	5.18	10.99	5.75
Symbolic Reasoning	6.60	5.42	5.61	4.86	7.24	4.95	4.86	3.84
AQE (Operationally Administered)								
Mechanical AI	58.25	24.38	56.40	19.07	63.51	21.30	53.84	19.51
Administrative AI	65.58	20.48	56.59	19.71	64.24	18.66	47.34	17.65
General AI	62.13	20.34	54.16	17.98	64.35	18.30	48.59	15.98
Electronics AI	55.86	25.14	46.34	21.64	57.88	23.79	40.59	18.87
AQE (Experimentally Administered)								
Mechanical AI	60.49	23.94	57.18	20.76	65.27	21.38	56.67	19.03
Administrative AI	55.22	23.00	42.10	18.43	57.65	21.24	38.35	17.87
General AI	60.70	21.50	50.55	18.13	63.38	20.08	45.25	18.04
Electronics AI	57.21	25.59	47.39	21.17	60.27	23.54	43.58	19.26
AFQT	62.59	23.24	59.51	17.98	65.80	20.65	51.42	17.19

Table 14. **Intercorrelations of Employee Aptitude Survey and Airman Qualifying Examination Variables** ($N = 965$)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1 Verbal Comprehension EAS																																
2 Numerical Ability	38																															
3 Visual Pursuit	20	32																														
4 Visual Speed & Accuracy	12	40	31																													
5 Space Visualization	21	40	50	43																												
6 Numerical Reasoning	41	58	32	32	45																											
7 Verbal Reasoning	45	48	27	21	38	54																										
8 Symbolic Reasoning	38	51	34	24	43	49	43																									
9 Airman Arithmetic AQE	28	62	23	43	32	47	35	38																								
10 Arithmetic Reasoning	47	68	29	31	43	62	49	49	58																							
11 Electrical Information	41	31	33	06	33	31	29	28	20	37																						
12 General Mechanics	29	21	31	03	33	26	23	23	16	32	69																					
13 Hidden Figures	29	39	36	34	40	40	33	40	36	43	32	24																				
14 Mechanical Principles	38	39	47	14	50	44	38	41	29	49	68	65	43																			
15 Pattern Comprehension	24	38	45	28	48	37	30	37	28	38	39	34	47	53																		
16 Data Interpretation	45	52	34	27	41	52	46	48	45	58	36	32	46	50	46																	
17 Shop Practices	20	13	27	01	32	20	16	17	08	21	59	72	21	59	33	24																
18 Word Knowledge	70	46	21	25	26	45	45	37	43	55	42	33	30	42	28	44	20															
19 Mechanical AI Retest	37	37	46	17	50	43	36	39	29	47	73	82	62	85	54	50	79	40														
20 Administrative AI	53	71	28	42	39	60	49	48	89	78	36	29	42	44	35	56	17	74	43													
21 General AI	66	64	35	37	44	62	55	52	57	81	48	38	67	56	45	61	26	85	61	84												
22 Electronics AI	50	63	47	31	56	60	51	53	49	77	69	55	56	73	78	74	46	55	74	68	78											
23 Mechanical AI Test	37	37	45	17	49	42	35	38	29	46	73	83	61	85	54	49	79	40	99	42	60	74										
24 Administrative AI	55	73	29	41	41	60	50	50	85	79	37	31	44	45	37	57	18	74	45	97	86	70	44									
25 General AI	66	64	35	37	44	61	54	52	57	80	48	38	67	55	45	61	26	84	61	84	99	77	60	86								
26 Electronics AI	50	63	47	31	55	60	50	53	49	77	69	54	55	73	78	74	45	54	74	68	77	99	73	70	77							
27 AFQT	52	50	47	24	53	54	45	48	39	61	62	58	48	71	58	56	49	56	73	58	70	79	72	60	70	79						
28 Education	28	32	14	26	16	21	18	20	29	27	17	12	23	15	21	22	08	31	19	36	35	29	18	37	35	29	22					
29 Mechanical AI (0)	33	31	38	14	43	35	31	34	21	39	65	72	46	70	50	39	68	36	82	34	50	64	81	37	50	64	66	18				
30 Administrative AI (0)	56	66	28	32	38	56	50	46	61	69	34	27	36	41	31	50	15	65	39	77	74	61	39	77	74	61	57	28	32			
31 General AI (0)	65	59	32	31	39	57	53	49	47	69	43	34	53	51	40	54	24	73	53	70	84	68	52	72	84	68	68	31	51	82		
32 Electronics AI (0)	49	61	43	26	52	56	49	50	45	71	61	50	49	67	61	62	41	53	67	62	72	85	66	65	72	84	76	29	65	67	74	

Note. – Decimal points omitted from correlations.

Table 15. **Prediction of Employee Aptitude Survey Scores from Airman Qualifying Examination Aptitude Indexes**

EAS Score Being Predicted	Optimally Weighted Set of AQE AIs	R^2	R
Verbal Comprehension	General[a]	.43	.66
Numerical Ability	Administrative	.53	.73
	Electronics	.56	.75
Visual Pursuit	Electronics	.22	.47
	Mechanical	.25	.50
Visual Speed and Accuracy	Administrative[a]	.17	.41
Space Visualization	Electronics	.30	.55
	Mechanical	.32	.57
Numerical Reasoning	General	.38	.61
	Electronics	.42	.65
Verbal Reasoning	General	.29	.54
	Electronics	.31	.56
Symbolic Reasoning	Electronics	.28	.53
	Administrative	.32	.56

[a]No significant improvements in the correlation coefficients were obtained by adding additional AIs.

Table 16. **Prediction of Employee Aptitude Survey Scores from Airman Qualifying Examination Subtests.**

EAS Score Being Predicted	Optimally Weighted Set of AQE Subtest Scores	R^2	R
Verbal Comprehension	Word Knowledge	.49	.70
	Data Interpretation	.52	.71
Numerical Ability	Arithmetic Reasoning	.46	.68
	Airman Arithmetic	.54	.73
Visual Pursuit	Mechanical Principles	.22	.47
	Pattern Comprehension	.28	.52
	Hidden Figures	.29	.53
Visual Speed and Accuracy	Airman Arithmetic	.18	.43
	Hidden Figures	.22	.47
	Pattern Comprehension	.23	.48
Space Visualization	Mechanical Principles	.25	.50
	Pattern Comprehension	.31	.56
	Arithmetic Reasoning	.34	.58
Numerical Reasoning	Arithmetic Reasoning	.39	.62
	Data Interpretation	.43	.65
Verbal Reasoning	Arithmetic Reasoning	.24	.50
	Word Knowledge	.29	.54
	Data Interpretation	.32	.57
Symbolic Reasoning	Arithmetic Reasoning	.24	.49
	Data Interpretation	.30	.54
	Hidden Figures	.32	.56

Table 17. **Prediction of Airman Qualifying Examination Aptitude Indexes from Employee Aptitude Survey Scores**

AQE AI Being Predicted	Optimally Weighted Set of EAS Scores	R^2	R
Mechanical	Space Visualization	.24	.50
	Verbal Comprehension	.32	.56
	Visual Pursuit	.36	.60
Administrative	Numerical Ability	.53	.73
	Verbal Comprehension	.62	.79
	Numerical Reasoning	.64	.80
General	Verbal Comprehension	.43	.66
	Numerical Ability	.61	.78
	Numerical Reasoning	.64	.80
Electronics	Numerical Ability	.40	.63
	Space Visualization	.51	.71
	Verbal Comprehension	.57	.76

REFERENCES

Madden, H.L., Valentine, L.D., Jr., & Tupes, E.C. *Comparison of the Airman Qualifying Examination with the Differential Aptitude Tests.* PRL-TR-66-7, AD-639 238. Lackland AFB, Tex.: Personnel Research Laboratory, Aerospace Medical Division, July 1966.

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13. ABSTRACT
In the high school testing program conducted by the USAF Recruiting Service, there is occasional reference to relationships between the Airman Qualifying Examination and certain civilian tests. Information concerning these relationships can be useful to guidance counselors. This report contains data on the relationships between the Employee Aptitude Survey and the Airman Qualifying Examination. Conversion tables for estimation of EAS scores from AQE aptitude indexes and subtest scores are presented, as well as tables for estimation of AQE aptitude indexes from EAS scores. The two batteries appear to measure essentially similar abilities.

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