

OFFICE OF THE SECRETARY OF DEFENSE

4 September 1980

Memo For Mr. Danzig

SUBJECT: Relationship between AFQT and IQ-
Inclusion for ASVAB Back-Up Book

You asked us to determine if any empirical studies had been conducted to correlate AFQT with traditional intelligence tests.


In 1974, the Air Force Human Resources Laboratory performed such a study. It is documented in a technical report entitled, "Relationship Among an Individual Intelligence Test and Two Air Force Screening and Selection Tests." AFQT was correlated against the Wechsler Adult Intelligence Scale (WAIS) for 200 (100 white and 100 black) Air Force enlistees. The correlation between AFQT and WAIS was .80 for white airmen and .77 for black airmen. These significant positive relationships indicate that AFQT and WAIS are measuring basically the same factor.

Additionally, while we were unable to find evidence that either the Army or Navy personnel research laboratories had ever

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correlated AFQT with intelligence tests, we did find an Army fact sheet on the subject. It was prepared in September 1965 by the Army Personnel Research Office, a predecessor organization to the Army Research Institute. A copy of the fact sheet is attached for your information.


A. J. Martin
Director
Accession Policy

Attachment

QUESTION

Do we have a correlation between IQ and AFQT?

ANSWER

Yes. The correlation between AFQT and an individually administered intelligence test (The Wechsler Adult Intelligence Scale) is about .8. The correlation is high enough to indicate that the two tests have very much in common.

However, because the statistical relationship between the Wechsler-derived IQ test and the AFQT is not perfect (as well as the fact that IQ scores vary from intelligence test to intelligence test), no direct one-to-one correspondence between AFQT percentile scores and IQ scores can be stated.

With the assumption that an AFQT percentile score of 50 is roughly equivalent to an IQ score of 100, a table has been constructed which gives the approximate IQ range for each Mental Category. Conversions are shown for the two better known individually administered intelligence tests, the Stanford-Binet and the Wechsler. Because those tests differ in their scaling, the IQ/AFQT conversions are not the same.

Conversion of Mental Category Scores from AFQT to IQ Scores

<u>Mental Categories</u>	<u>Percentiles</u>	<u>Stanford-Binet IQ</u>	<u>Wechsler IQ</u>
I	93-99	124 and above	122 and above
II	65-92	108-123	106-121
III	31-64	92-107	93-105
IV	10-30	72-91	81-92
V	01-09	71 and below	80 and below

Percent of Population Who Score in the Various IQ Ranges

145 and above	.13%
130-144	2.14%
115-129	13.59%
100-114	34.13%
85-99	34.13%
70-84	13.59%
55-69	2.14%
54 and below	.13%

Commissioned officers generally fall in AFQT mental categories I and II, as do most professions that require college education. Skilled workers tend to fall in the normal range (Cat III range), with semi-skilled workers in dull-normal range (Cat IV). It should be emphasized that a quarter to a third of the population is classified in the dull category and below (Cat IV and V, plus institutionalized). These people are functioning in our society, and are making their own way. More information on the relationship between AGCT scores and occupations of soldiers during WW II is being obtained.