

## AFQT Theory of Action – Selection (V2.0)

### Three Major Claims

I. <i>g</i> is broadly predictive of performance	➔	II. AFQT measures <i>g</i>	➔	III. Psychometric evidence supports the use of AFQT score categories for making selection decisions.
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### AFQT Interpretive Argument

<b>v1.0</b>	<b>Major Claim I</b>
I.	I. <i>g</i> is broadly predictive of performance.
	<b>Specific Claim</b>
I.1	I.1. <i>g</i> is a broad, stable construct that predicts performance.
	<b>Assumptions</b>
I.2.a	I.1.a. If <i>g</i> is a broad, stable construct that predicts performance, then <i>g</i> can be measured by cognitive ability tests.
I.1.b	I.1.b. If <i>g</i> is a broad, stable construct that predicts performance, then <i>g</i> should be relatively stable over time.
I.1.a	I.1.c. If <i>g</i> is a broad, stable construct that predicts performance, then there should be a well-established body of validity evidence for <i>g</i> as a predictor of many performance outcomes (e.g., training/educational, job performance).

<b>v1.0</b>	<b>Major Claim II</b>
IIA	II. AFQT measures <i>g</i> .
	<b>Specific Claim</b>
IIA.1	II.1. AFQT is a measure of <i>g</i> .
	<b>Assumptions</b>
IIA.2.a	II.1.a. If AFQT is a measure of <i>g</i> , then AR, WK, PC, and MK should be acceptable subtests for estimating <i>g</i> .
IIA.1.a	II.1.b. If AFQT is a measure of <i>g</i> , then AFQT scores should show patterns of prediction similar to those for <i>g</i> .
IIA.2.b	II.1.c. If AFQT is a measure of <i>g</i> , then information from other subtests should add minimal improvement in prediction strength.
IIA.4.b	II.1.d. If AFQT is a measure of <i>g</i> , then AFQT scores should show patterns of subgroup differences and predictive bias similar to those for <i>g</i> .

<b>V1.0</b>	<b>Specific Claim</b>
IIA.2	II.2. AFQT subtest scores are of sound psychometric quality.
	<b>Assumptions</b>
IIA.2.d	II.2.a. If AFQT subtest scores are of sound psychometric quality, then subtest content specifications should adequately reflect the constructs of interest.
IIA.2.e	II.2.b. If AFQT subtest scores are of sound psychometric quality, then item generation and review procedures should be consistent with industry best practices.
	II.2.c. If AFQT subtest scores are of sound psychometric quality, then operational item pools and items selected for administration to individual respondents should contain a sufficient number and mix of items well-aligned to their intended constructs. (from ASVAB 11.3.c)
from ASVAB IA	II.2.d. If AFQT subtest scores are of sound psychometric quality, then psychometric estimates of reliability should be acceptable for each subtest.
from ASVAB IA	II.2.e. If AFQT subtest scores are of sound psychometric quality, then AFQT subtest scores should be robust to coaching and practice effects.
IIA.2.c and IIA.2.f	II.2.f. If AFQT subtest scores are of sound psychometric quality, then equating and scaling methods should accurately place scores from different forms onto a common scale and allow for interchangeable interpretation of scores from different forms (item pools).
	<b>Specific Claim</b>
IIA.3	II.3. AFQT scores are of sound psychometric quality.
	<b>Assumptions</b>
IIA.3.a	II.3.a. If AFQT scores are of sound psychometric quality, then the method of constructing AFQT should be supported by rational and/or empirical evidence to optimize desired outcomes.
IIA.3.b	II.3.b. If AFQT scores are of sound psychometric quality, then internal consistency estimates (alpha or similar) should be above acceptable levels.
IIA.4.a	II.3.c. If AFQT scores are of sound psychometric quality, then AFQT scores should be supported by rigorous norming procedures.

<b>v1.0</b>	<b>Specific Claim</b>
IIA.3	II.4. Psychometric evidence supports the use of AFQT cut scores.
	<b>Assumptions</b>
see Intro v1.0 report	II.4.a. If psychometric evidence supports the use of AFQT cut scores, then cut scores should have been set using professional best practices.
IIA.3.c & IIA.3.d	II.4.b. If psychometric evidence supports the use of AFQT cut scores, then AFQT scores should have high overall reliability and lower error, especially near the cut score(s), resulting in classification accuracy.
	<b>Specific Claim</b>
IIB.1	II.5. Administrative policies and procedures are informed by professional test guidelines.
	<b>Assumptions</b>
IIB.1.a	II.5.a. If administrative policies and procedures are informed by professional test guidelines, then ASVAB administration procedures should be clearly documented.
III.3.a	II.5.b. If administrative policies and procedures are informed by professional test guidelines, then ASVAB score reports should be clear, and the information provided should be actionable.
	<b>Specific Claim</b>
New	II.6. Administrative policies and procedures are informed by psychometric evidence.
	<b>Assumptions</b>
II.B.2.a	II.6.a. If administrative policies and procedures are informed by psychometric evidence, then the paper-and-pencil and CAT versions of the ASVAB should yield interchangeable scores.
IIB.3.a	II.6.b. If administrative policies and procedures are informed by psychometric evidence, then unproctored verified and proctored versions of the ASVAB should yield interchangeable scores.
IIB.4.a	II.6.c. If administrative policies and procedures are informed by psychometric evidence, then ASVAB delivery on other devices (e.g., tablets, cell phones) should yield scores interchangeable with those scores obtained via personal computer/laptop administration.
IIB.5.a	II.6.d. If administrative policies and procedures are informed by psychometric evidence, then retest policies and procedures should be informed by data.

v1.0	<b>Major Claim III</b>
III.	<b>III. Psychometric evidence supports the use of AFQT score categories for making selection decisions.</b>
	<b>Specific Claim</b>
III.1	III.1. AFQT score categories represent important differentiators among applicants.
	<b>Assumptions</b>
III.1.a	III.1.a. If AFQT score categories represent important differentiators among applicants, then AFQT cut scores should support accession-related policymaking.
III.1.b	III.1.b If AFQT score categories represent important differentiators among applicants, then AFQT cut score-based groups should be differentiated in accordance with expected differences in performance outcomes.
III.2.a	III.1.c. If AFQT score categories represent important differentiators among applicants, then an applicant's chances of being miscategorized should be very small.