



ARI Non-Cognitive Measures Research



Whole-person Assessment = cognitive + non-cognitive measures

Evidence of Predictive Linkages with Enlisted Soldiers

Non-Cognitive Measures	First Term Soldier Performance	First Term Soldier Attitudes*	First Term Soldier Attrition	Special Samples Performance	NCO Performance / Promotion
AIM: Assessment of Individual Motivation Forced-choice self-descriptors	yes	yes	<ul style="list-style-type: none"> • BCT • AIT • 36 mo. in service 	<ul style="list-style-type: none"> • Correctional specialists • Special Forces • EOD trainees • Recruiters • Drill Sergeants 	yes
RBI: Rational Biodata Inventory Self-report of previous experiences, behaviors, and reactions	yes	yes	<ul style="list-style-type: none"> • BCT • AIT • 9 & 15 mo. 	<ul style="list-style-type: none"> • Special Forces • Recruiters • Drill Sergeants 	yes
SJT: Situational Judgment Tests Forced-choice measure of decision making in realistic scenarios	yes	yes	<ul style="list-style-type: none"> • BCT • 9 mo. 		yes
P-E Fit: Person Environment Fit Self-assessment of work values and preferences in relation to the Army and Army jobs	yes	yes	<ul style="list-style-type: none"> • BCT • AIT • 9 & 15 mo. 		

Note: Forced choice measures provide no obvious best/worst answer options.
 * Attitudes include Satisfaction, perceptions of Army and unit fit, career intentions, and intentions to separate.
 Blank boxes indicate research has not been conducted.



Soldier Performance at Initial Entry



SELECT21 Objective:

- Provide capability to select entering Soldiers with the full range of qualities needed for maximum performance of Future Force positions

Products:

- Valid personnel tests for selecting new Soldiers to future jobs
- Information for shaping the Army's accessions system for acquisition of new Soldiers

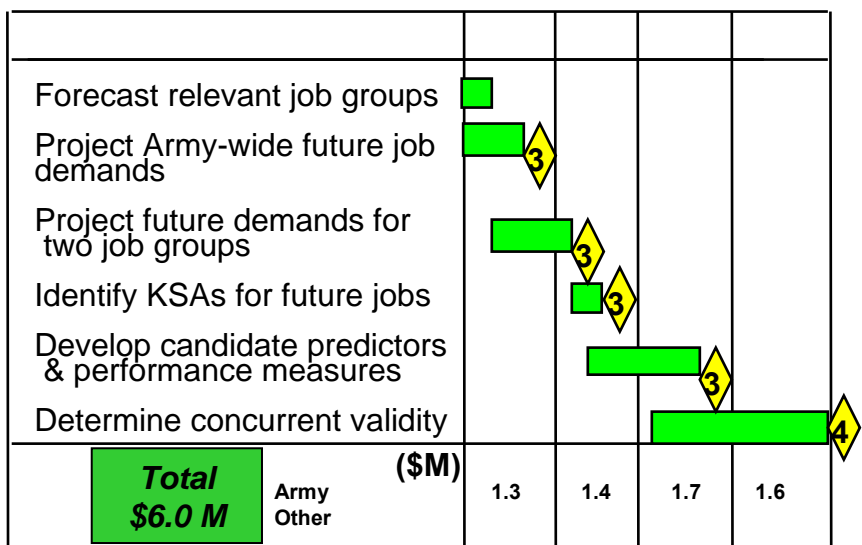
Payoff:

- Entering Soldiers capable of development for performance of a multitude of skills, across a wide spectrum of operations, for dominance over an adversary

ARMY CLASS Project Objectives:

- Improve performance and satisfaction of entry-level Soldiers through improved classification assessment
 - Adapt Select21 non-cognitive measures for classification and validate against performance/satisfaction criteria
- Certify junior noncommissioned officers and below for MOS reclassification
 - Develop and validate competency assessments for development and personnel functions including promotion and reclassification

SELECT21 Schedule & Cost



ARMY CLASS Schedule

FY06	Quick study for measure development with 1 st term Soldiers
FY07/08	Collect non-cognitive data at reception battalions from ~10,000 recruits Collect and analyze training performance and attrition data
FY09	Collect job performance, attitudes, and attrition data
FY10	Final results and recommendations



Tier Two Attrition Screen (TTAS)



TTAS Program ...

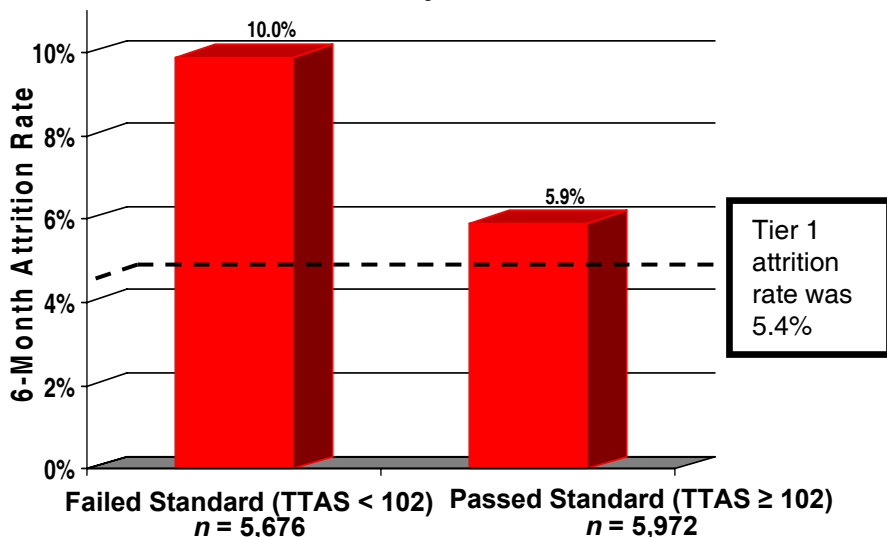
- Exempts TTAS-qualified NHSDG from counting against OSD's 10% cap on NHSDG accessions; 6,000 in FY06
- Allows Tier 1 incentives for TTAS-qualified NHSDG in Tier 2
- Applies to all Regular Army, USAR, and ARNG applicants
- 5,000 Tier 1 to be tested on AIM for research purposes

ARI Tier Two Attrition Screen (TTAS)

- Combines AIM, ASVAB, and Body Mass Index measures for a "whole person" assessment
- Predicts non-high school diploma graduate (NHSDG) enlisted attrition
- Implemented in April 2005; continues to end of FY07

6-Month Validation Findings For GEDs ($n = 11,648$)

Source: U.S. Army Research Institute



Note: The overall attrition rate for the full GED sample is 7.9%

Assessment of Individual Motivation (AIM)

- Predicts motivational and adaptability components of performance
 - Self report measure of Adjustment, Physical Conditioning, Leadership, Work Orientation, Agreeableness, and Dependability (Maturity)
 - Uses multidimensional forced-choice format to increase resistance to gaming/faking
 - AIM scales have low correlations with gender and race/ethnic group
- Incremental validity over ASVAB and educational attainment for predicting criteria



Soldier Performance & Promotion



Maximizing Performance for 21st Century NCOs (NCO21)

- Identified current & future-oriented knowledges, skills, and attributes (KSAs)
- Developed & validated predictor measures
- Improved performance prediction 300%

Status: Completed FY02

Transition: Research finding provided foundation for policy changes to junior NCO promotions system

Competency Assessment for the 21st Century (PerformM21)

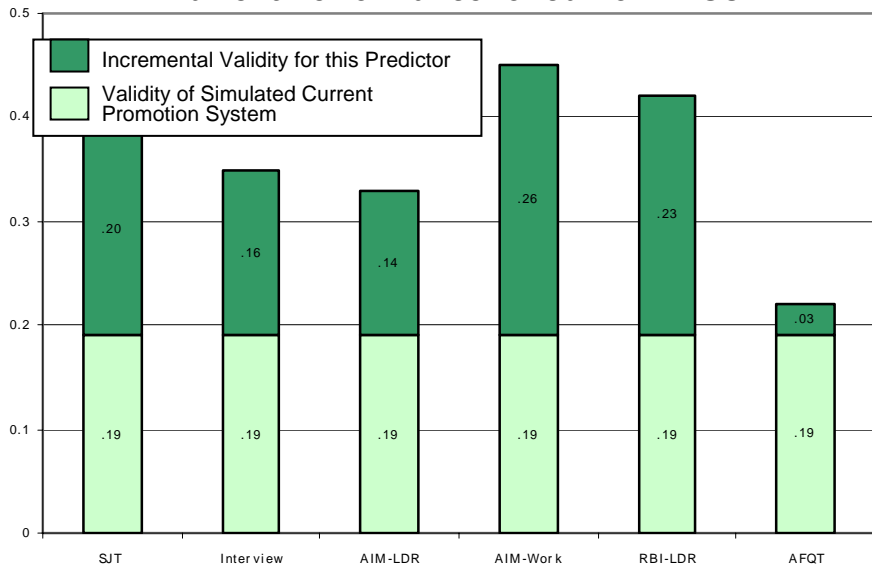
- Identified factors contributing to future success
- Developed prototype Army-wide and MOS-specific knowledge and skill assessment

Status: Completed FY05

Transition: Subset of knowledge and SJT items provided to TRADOC for use in self-development

Additional items provide for Soldier/NCO of the Year Competition

Current Performance for Junior NCOs



Non-Cognitive Measures & AFQT

Common Core Assessment Areas

	Common Tasks		Leadership	Training	History/Values
	SL1	SL2			
% Items on Test	46	14	13	12	15
% Think items measure knowledge	70.9	70.3	73.7	71.7	77.0
Mean % Correct	58	53	56	64	67

Overall Mean Correct = 60%



STAY – Strategies to Enhance Retention



Purpose: Improve retention of high performing officers and enlisted personnel

Products:

- Interventions with demonstrated potential for improving attrition and retention rates
- Model of the retention process with action implications for retention management

Payoff:

- Personnel cost reductions through improved retention strategies
- Improved capability for force effectiveness with retention of high performing Soldiers

<i>Schedule</i>	FY06	FY07	FY08
MILESTONES	FY06	FY07	FY08
Initial retention model	3		
Identify retention-enhancing interventions			
Initial recommendations to G-1, TRADOC		4	
Test model with new and existing data			
Evaluate interventions			5
Final recommendations			



Designing Competencies for the Army: Military and Civilian



OSD Human Capital Strategy:

- Right mix of people and skills across the Total Force (AC, RC, DOD civilians)
- “Competency-focused” and “performance-based” approach
- Common lexicon and joint metrics to link the Defense Strategy to Service-level rebalancing decisions



ARI Analysis Project: Evaluating the O*NET[†] Occupational Analysis System for Army Competency Development

- Short term (FY08) analysis competency development for Army Officers, Warrant Officers, NCOs, and civilians
- Products
 - Army cross-job competencies for a target job set
 - prototype taxonomy of O*NET cross-job competencies for Army jobs
 - Foundation for 5-year Competency model research plan

[†]O*NET is a product of the Department of Labor

ARI 5-year Plan Products (unprogrammed research):

- Competency-based job analysis methodology
- Methodology and compositional strategies for forming competencies
- Methodology for developing/identifying performance metrics
- Performance metrics and standards