Technical Report 1328

Validation of the Noncommissioned Officer Special Assignment Battery

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14. ABSTRACT (Maximum 200 words):

This report describes research on noncognitive measures for screening Army recruiters with potential application to other Noncommissioned Officer (NCO) assignments. One limitation has been that previously validated instruments for this purpose required proctored testing. To make it easier for Soldiers to be tested, reduce costs, and build upon previous work, ARI was requested to assist with: 1) developing a computerized, non-cognitive measure suitable for unproctored administration, and 2) validating this instrument against measures of recruiter performance. This new instrument is called the Noncommissioned Officer Special Assignment Battery (NSAB). The NSAB is a computer-adaptive, forced-choice assessment, which incorporates recent advances in noncognitive measurement that have been shown to be highly faking resistant and suitable for high-stakes testing environments. The NSAB has 18 scales. Results from a sample of 1032 experienced Army recruiters indicated that Soldiers scoring higher on an NSAB composite reported: 1) lower job stress, 2) higher satisfaction with recruiting duty, and 3) were rated by their peers and supervisors as performing better, as compared to those with lower NSAB composite scores. These findings indicate that NSAB can help to identify Soldiers with higher potential for recruiting duty, and has potential for screening in other NCO assignments.

15. SUBJECT TERMS

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VALIDATION OF THE NONCOMMISSIONED OFFICER SPECIAL ASSIGNMENT BATTERY

EXECUTIVE SUMMARY

Research Requirement:

The Department of the Army (DA) and the United States Army Recruiting Command (USAREC) must recruit large numbers of personnel annually that meet or exceed enlistment standards that many civilian organizations do not require. In FY12, the combined Active Army and Army Reserve accession mission was over 74,000 personnel, which is somewhat lower than historical levels. The Army has more than 8,000 Active Army and Army Reserve Soldiers assigned as recruiters in more than 1,600 recruiting stations throughout the U.S. and overseas (USAREC, 2012). To fulfill their annual accession mission, USAREC requires a qualified and dedicated team of Soldiers that can be trained to become effective recruiters.

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) conducted a series of research activities from 2000 to 2005 to develop and validate the Noncommissioned Officer Leadership Skills Inventory (NLSI) (Borman et al., 2004; White, Borman, & Bowles, 2001). This research was intended to help the Army move forward with its efforts to develop and implement a screening process for selecting Army recruiters. The NLSI measures skills and abilities related to recruiter performance such as work orientation, interpersonal skills, and leadership capability. Predictive and concurrent validation research results demonstrated that the NLSI was related to attrition from recruiter training, recruiter performance, and production (recruits enlisted) (Horgen et al., 2006; White et al., 2002; White et al., 2004). Additional research was conducted to improve the NLSI prediction model using a statistical learning and data mining method. A revised prediction algorithm was created to select Soldiers for assignment to recruiting duty (Halstead, 2009).

In 2008, the Deputy Chief of Staff (DCS), G-3, and G-1 collectively implemented the NLSI, later named the Warrior Attributes Inventory (WAI), to select Soldiers for assignment to Recruiting School. The WAI was administered at Digital Training Facilities (DTFs) worldwide for operational testing. However, the volume of Soldiers testing at the DTFs was insufficient to support full implementation of a recruiter screening program. To streamline and improve the program, the U.S. Army Training and Doctrine Command (TRADOC) and Human Resources Command (HRC) recently requested that ARI assist with: 1) creating a measure for unproctored, online administration, and 2) validating the assessment for in-service testing.

The primary objective of the current research was to assist USAREC in developing a new instrument that can be administered online, in an unproctored environment, and will identify Soldiers with high potential for recruiting duty success. Our goal was to explore the potential validity of this new instrument, the Noncommissioned Officer Special Assignment Battery (NSAB).

Procedure:

This report describes the two approaches that were used to evaluate the NSAB in Noncommissioned Officer (NCO) and recruiter samples. First, the construct validity of the NSAB was examined by comparing results from the NSAB and the WAI in a sample of NCOs. Next, the relationship of the NSAB to performance and job attitudes was explored in a sample of experienced recruiters. These analyses were conducted to explore the extent to which the NSAB might be useful for NCO in-service testing and selection into the recruiter special duty assignment.

The NSAB is based on the Tailored Adaptive Personality Assessment System (TAPAS), and consists of 126 items measuring 18 personality dimensions. The TAPAS was specifically developed to be fake-resistant and administered in a computerized format. As such, this measure is uniquely suited for the online administration of high-stakes selection tests like the NSAB. Previous research conducted on the WAI provided results regarding the key personality dimensions that predict recruiter performance. With this in mind, TAPAS scales were selected for the NSAB that measure the attributes and skills previously found to be relevant to recruiter and NCO performance. The overlap between key dimensions on the NSAB and the WAI was examined in a sample of NCOs who completed both measures.

Our next step was to examine the validity of the NSAB in a sample of recruiters to more directly test the relationships between the NSAB scales and recruiter success. NSAB and criterion (Army Recruiter Performance Rating Scales, Recruiting Life Questionnaire) data were collected from over 600 experienced recruiters and their peers and supervisors from August through November 2011. All of the data were collected through unproctored, web-based assessments. Correlational and regression analyses were conducted on the NSAB and recruiter criterion measures to estimate the validity of the NSAB for predicting recruiter performance, job fit, commitment, and satisfaction.

Finally, in a sample of NCOs, we conducted a preliminary investigation of the validity of the NSAB for predicting several criteria including NCO performance, commitment, and retention. Predictor (WAI, NSAB) and criterion data (Army Life Questionnaire, Performance Rating Scales) were collected from 348 NCOs and 313 supervisors from March through September 2010. We then conducted correlational analyses on the WAI and NSAB and correlational and regression analyses on the NSAB and NCO criterion measures.

Findings:

The results from the sample of experienced recruiters demonstrated that several NSAB scales were significantly related to a number of recruiting success criteria. Recruiters scoring higher on the NSAB were rated as higher performers by their supervisors and peers. NSAB scores also significantly predicted recruiter commitment, job fit, job stress, and satisfaction with recruiting. Recruiters in the top 20% on the NSAB composite were more committed to the Army, experienced less job stress, reported a higher degree of fit with recruiting, and performed better than those in the lowest scoring 20%. Results also indicated that the NSAB measured the key non-cognitive dimensions shown to predict Army recruiter performance in previous research.

These results suggest that the NSAB can help to identify and select high potential Soldiers for recruiting duty assignments.

The primary focus in the NCO data collection was to confirm that the NSAB demonstrated significant overlap with the key dimensions on the WAI that had predicted recruiter performance in previous research. The correlations between the NSAB and the WAI scales indicated that the two measures have similar content, especially on the key scales that were related to recruiter performance. Further, regression analyses demonstrated that NCOs scoring highly on the NSAB reported stronger commitment to the Army, better fit with their MOS, and higher levels of physical fitness (APFT).

Utilization and Dissemination of Findings:

The NSAB results are consistent with past research examining the predictors of recruiter success (White et al., 2001). Further, the NSAB improves on the WAI in several areas. First, the NSAB captures content that is similar to, and may improve upon, the WAI. Second, the NSAB can be administered in an online, unproctored environment, which would simplify NCO test administration procedures. Third, the NSAB was developed using a forced-choice format which is more resistant to faking than traditional non-cognitive measures. Finally, preliminary evidence suggests that the NSAB can help to identify Soldiers with high potential for recruiting duty success. Recruiters with higher NSAB scores were more committed to the Army, reported a higher degree of fit with recruiting, experienced less job stress, and received higher performance ratings than those with lower NSAB scores.

Building on the promising foundation of the current project, future research is recommended to evaluate the validity of the NSAB in a longitudinal, predictive design, and under operational conditions. This type of design would allow the Army to more closely estimate the validity of an operational NSAB recruiter screening program.

The content and features of the NSAB also have potential for NCO selection for other assignments such as drill sergeant, instructors, or special operations, and the authors recommend further testing of the NSAB for use as an in-service selection tool for other NCO duty assignments. As a result of the success of this research, ARI is pursuing implementation of the NSAB on an Army-wide accessible platform to support further testing and evaluation of expanded applications of the NSAB.

VALIDATION OF THE NONCOMMISSIONED OFFICER SPECIAL ASSIGNMENT BATTERY

CONTENTS

Page

CHAPTER 1: INTRODUCTION 1
Noncommissioned Officer Special Assignment Battery (NSAB) 2
Purpose of the Current Research 4

CHAPTER 2: NSAB CONSTRUCT VALIDATION 5
Description of NCO Predictor and Criterion Measures 5
NCO Predictor Measures 5
NCO Criterion Measures 6
NCO Data Collection 6
NCO Participants 6
Data Collection Procedures – NCO Sample 6
Database Development 7
Database Cleaning 7
NSAB and WAI Results 7
Summary 11

CHAPTER 3: NSAB CRITERION VALIDATION FOR RECRUITERS 12
Description of Recruiter Predictor and Criterion Measures 12
Recruiter Predictor Measure 12
Recruiter Criterion Measures 13
Experienced Recruiter Data Collection 14
Data Collection Procedures – Experienced Recruiter Sample 14
Recruiting Database Development and Cleaning 15
Detailed Recruiter Demographics and Background 15
Experienced Recruiter Criterion Measure Results 17
Recruiter Rating Scales – Rater Demographics 17
Recruiter Performance Rating Scales – Descriptives 17
Recruiter Performance Rating Scales - Factor Analyses 19
Recruiting Life Questionnaire – Descriptives 21
Final Criterion Measures – Experienced Recruiter Sample 22
NSAB Validity Results: Experienced Recruiter Sample 23
Summary 32

CHAPTER 4: CONCLUSION 33

REFERENCES 35

Page

APPENDICES

APPENDIX A. NCO ANALYSES A-1

APPENDIX B. RECRUITING PILOT TEST B-1

APPENDIX C. ARMY RECRUITER PERFORMANCE RATING SCALES C-1

APPENDIX D. RECRUITING LIFE QUESTIONNAIRE D-1

APPENDIX E. EXPERIENCED RECRUITER DEMOGRAPHICS E-1

APPENDIX F. RECRUITER SUPERVISOR AND PEER RATER DEMOGRAPHICS F-1

TABLES

TABLE 1. TAPAS DIMENSIONS ASSESSED IN THE NSAB 3

TABLE 2. FINAL SAMPLE SIZES 7

TABLE 3. MEANS, STANDARD DEVIATIONS, AND CORRELATIONS BETWEEN THE NSAB SCALES 9

TABLE 4. CORRELATIONS BETWEEN THE NSAB AND WAI PART I AND PART II SCALES 10

TABLE 5. ONLINE INSTRUMENTS ADMINISTERED TO THE RECRUITING SAMPLES 12

TABLE 6. RECRUITER ENTRY STATUS, COMPANY RECRUITING SYSTEM, AND STATION SIZE 16

TABLE 7. PERCENT TIME SPENT IN RECRUITING TASKS 16

TABLE 8. NUMBER OF HOURS SPENT RECRUITING (PER DAY*) 16

TABLE 9. IF VOLUNTEERED FOR RECRUITING DUTY, REASONS FOR BECOMING A RECRUITER 17

TABLE 10. RATER FAMILIARITY WITH RECRUITER 18

TABLE 11. NUMBER AND PERCENTAGE OF RATINGS AT EACH SCALE POINT 18

Page

TABLE 12. RECRUITER PERFORMANCE RATING SCALES – MEANS, SDS AND ICCS 18

TABLE 13. CORRELATIONS BETWEEN THE PERFORMANCE RATING SCALES IN THE RECRUITER SAMPLE 19

TABLE 14. FACTOR LOADINGS FROM THE SINGLE FACTOR CFA MODEL OF THE PERFORMANCE RATING SCALES IN THE SAMPLE OF EXPERIENCED RECRUITERS 20

TABLE 15. USAREC AWARDS 21

TABLE 16. MOS RECLASSIFICATION 21

TABLE 17. FREEDOM TO SELECT OWN ASSIGNMENT 21

TABLE 18. RLQ SCALE RELIABILITIES 22

TABLE 19. DESCRIPTIVE STATISTICS FOR THE CRITERIA IN THE RECRUITER SAMPLE 22

TABLE 20. CORRELATIONS BETWEEN THE CRITERIA IN THE RECRUITER SAMPLE 22

TABLE 21. DESCRIPTIVE STATISTICS FOR THE NSAB SCALES IN THE RECRUITER SAMPLE 23

TABLE 22. CORRELATIONS BETWEEN THE NSAB SCALES IN THE SAMPLE OF EXPERIENCED RECRUITERS 24

TABLE 23. CORRELATIONS BETWEEN THE NSAB SCALES AND THE CRITERIA IN THE SAMPLE OF EXPERIENCED RECRUITERS 25

TABLE 24. COMPARING THE CORRELATIONS BETWEEN THE NSAB SCALES AND PEER OR SUPERVISOR PERFORMANCE RATINGS 26

TABLE 25. STANDARDIZED REGRESSION WEIGHTS FOR THE NSAB SCALES THAT ARE SIGNIFICANT PREDICTORS OF EACH CRITERION IN THE SAMPLE OF EXPERIENCED RECRUITERS 27

TABLE 26. COMPARING THE STANDARDIZED REGRESSION WEIGHTS FOR THE NSAB SCALES THAT ARE SIGNIFICANT PREDICTORS OF PEER AND SUPERVISOR PERFORMANCE RATINGS 28

Page

TABLE 27. SIGNIFICANT CORRELATIONS BETWEEN THE CRITERION MEASURES AND THE PREDICTED SCORES ON THE NSAB COMPOSITE 29

FIGURES

FIGURE 1. SCREE PLOT OF THE PERFORMANCE RATING SCALES IN THE SAMPLE OF EXPERIENCED RECRUITERS. 20

FIGURE 2. QUINTILE PLOTS OF THE RELATIONSHIPS BETWEEN THE NSAB COMPOSITE AND ARMY COMMITMENT, RECRUITING FIT, RECRUITING STRESS, AND THE PERFORMANCE RATING COMPOSITE. 31

FIGURE 3. PERCENTAGES OF ARC STUDENTS IN EACH OF THE NSAB COMPOSITE QUINTILES IDENTIFIED IN THE SAMPLE OF EXPERIENCED RECRUITERS. 32

VALIDATION OF THE NONCOMMISSIONED OFFICER SPECIAL ASSIGNMENT BATTERY (NSAB)

CHAPTER 1: INTRODUCTION

The Department of the Army (DA) and the United States Army Recruiting Command (USAREC) must recruit large numbers of personnel annually that meet or exceed enlistment standards that many civilian organizations do not require. In FY12, the combined Active Army and Army Reserve accession mission was over 74,000 personnel, which is somewhat lower than historical levels. The Army has more than 8,000 Active Army and Army Reserve Soldiers assigned as recruiters in more than 1,600 recruiting stations throughout the U.S. and overseas (USAREC, 2012). To fulfill their annual accession mission, USAREC requires a qualified and dedicated team of Soldiers that can be trained to become effective recruiters.

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) conducted a series of research activities from 2000 to 2005 to develop and validate a measure to select Soldiers with high potential for recruiting duty success. To begin, ARI conducted an extensive review of the literature on military recruitment to identify individual difference and other factors likely to contribute to high levels of recruiting performance (Borman, Horgen, & Penney, 2000). Next, ARI developed a paper-and-pencil test battery composed of many of these factors and conducted preliminary research to evaluate the empirical validity of the test battery.

Based on the results of concurrent validation research, ARI developed the Noncommissioned Officer Leadership Skills Inventory (NLSI), which was originally a paper-and-pencil measure administered in a *proctored* environment (Borman et al., 2004; White, Borman, & Bowles, 2001). The NLSI measures skills and abilities related to recruiter performance such as work orientation, interpersonal skills, and leadership capability. Predictive validation research conducted with thousands of Army recruiters demonstrated that the NLSI was related to attrition from recruiter training, recruiter performance, and production (recruits enlisted) (Horgen et al., 2006; White et al., 2002; White et al., 2004). Additional research was conducted to improve the NLSI prediction model using a statistical learning and data mining method. A revised prediction algorithm was created to select Soldiers for assignment to recruiting duty (Halstead, 2009).

In 2008, the Deputy Chief of Staff (DCS), G-3, and G-1 collectively implemented a computerized version of the NLSI, later named the Warrior Attributes Inventory (WAI), to select Soldiers for assignment to Recruiting School. The WAI was successfully deployed at Digital Training Facilities (DTFs) worldwide for operational testing. However, the volume of Soldiers testing at the DTFs was insufficient to support full implementation of a recruiter screening program. To streamline and improve the program, the U.S. Army Training and Doctrine Command (TRADOC) and Human Resources Command (HRC) recently requested that ARI assist with: 1) creating a measure for unproctored, online administration, and 2) validating the assessment for in-service testing.

In the current project, ARI, Personnel Decisions Research Institutes (PDRI), and Drasgow Consulting Group (DCG) conducted research to assist USAREC in developing a new instrument that could be administered in an online, unproctored environment to identify Soldiers

with high potential for recruiting duty success. Our goal was to explore the potential validity of this new instrument for Noncommissioned Officer (NCO) in-service testing and selection for recruiting duty assignment. Next, we describe this new measure, the Noncommissioned Officer Special Assignment Battery (NSAB).

Noncommissioned Officer Special Assignment Battery (NSAB)

The NSAB consists of 126 items measuring 18 personality dimensions selected to cover constructs measured in the original WAI. Table 1 lists the descriptions of the personality dimensions assessed by the NSAB. Two versions of the NSAB inventory were developed to accommodate different testing needs. The first is a static form that can be administered via paper-and-pencil in settings where computers with internet access are unavailable; the second is a computerized adaptive test deployed via a web application.

Both versions of the NSAB were based on the Tailored Adaptive Personality Assessment System (TAPAS). At the heart of the assessment system is a trait taxonomy comprising 21 facets of the Big Five personality factors plus Physical Conditioning, which has been shown to be important for military applications (Chernyshenko, Stark, & Drasgow, 2010; Chernyshenko, Stark, Drasgow, & Roberts, 2007). TAPAS tests utilize a multidimensional pairwise preference (MDPP) format that is designed to be resistant to faking in a way that is similar to the Army's Assessment of Individual Motivation (AIM; Stark, Chernyshenko, Drasgow, Lee, White, & Young, 2011; White & Young, 1998; White, Young, Heggestad, Stark, Drasgow, & Piskator, 2004) inventory. The MDPP format was chosen because it provides a more mathematically tractable alternative for constructing and scoring adaptive tests using item response theory (IRT) (Stark, Chernyshenko, & Drasgow, 2005; Stark, Chernyshenko, Drasgow, & White, 2012).

Initial predictive and construct-related validity evidence for TAPAS was collected during the U.S. Army's Expanded Enlistment Eligibility Metrics (EEEM) research project from 2007-2009 (Knapp & Heffner, 2010). The EEEM effort was conducted in conjunction with ARI's *Army Class* longitudinal validation of multiple experimental non-cognitive predictor measures. In the EEEM project, new Soldiers completed a 12-dimension, 95-item nonadaptive (or static) version of TAPAS, called TAPAS-95s. TAPAS-95s was administered as a paper questionnaire that included an information sheet showing respondents a sample item and illustrating how to properly record their answers to the "questions" that followed. Respondents were specifically instructed to choose the statement in each pair that was "more like me" and that they must make a choice even if they found it difficult to do so. Item responses were scored using an updated version of Stark's (2002) computer program for MDPP trait estimation.

Overall, the TAPAS-95s showed evidence of construct and criterion validity as well as incremental validity over AFQT for predicting several performance criteria. For example, when TAPAS trait scores were added into a regression analysis based on a sample of several hundred Soldiers, the multiple correlation increased by .26 for the prediction of physical fitness, by .16 for the prediction of disciplinary incidents, and by .20 for the prediction of 6-month attrition (Allen, Cheng, Putka, Hunter, & White, 2010). None of these criteria were predicted well by AFQT alone (predictive validity estimates were consistently below .10).

In May 2009, the U.S. Army also approved the initial operational test and evaluation (IOT&E) of the TAPAS for use with Army applicants at Military Entrance Processing Stations (MEPS). In collaboration with the Army Research Institute, DCG developed the three computerized forms of TAPAS implemented in the MEPS. Validation research on these versions of TAPAS has shown that the TAPAS scales have validity for predicting Army-wide (Nye, Drasgow, Stark, Chernyshenko, & White, 2012) and MOS-specific criteria (Nye, Drasgow, Chernyshenko, Stark, Kubisiak, White, & Jose, 2012). In sum, this research has shown the TAPAS to be a viable assessment tool with the potential to enhance new Soldier selection. In addition, preliminary results also suggest that the TAPAS scales may be useful for MOS qualification (Nye, Drasgow, Chernyshenko, et al., 2012).

Table 1. ***TAPAS Dimensions Assessed in the NSAB***

TAPAS Facet Name	Brief Description	"Big Five" Broad Factor
Dominance	High scoring individuals are domineering, "take charge" and are often referred to by their peers as "natural leaders."	Extraversion
Sociability	High scoring individuals tend to seek out and initiate social interactions.	
Attention Seeking	High scoring individuals tend to engage in behaviors that attract social attention; they are loud, loquacious, entertaining, and even boastful.	
Selflessness	High scoring individuals are generous with their time and resources.	Agreeableness
Cooperation	High scoring individuals are trusting, cordial, non-critical, and easy to get along with.	
Consideration	Individuals scoring high on this facet are affectionate, compassionate, sensitive, and caring.	
Achievement	High scoring individuals are seen as hard working, ambitious, confident, and resourceful.	Conscientiousness
Order	High scoring individuals tend to organize tasks and activities and desire to maintain neat and clean surroundings.	
Responsibility	High scoring individuals are dependable, reliable and make every effort to keep their promises.	
Self-Control	High scoring individuals tend to be cautious, levelheaded, able to delay gratification, and patient.	
Non-Delinquency	High scoring individuals tend to comply with rules, customs, norms, and expectations, and they tend not to challenge authority.	
Adjustment	High scoring individuals are worry free, and handle stress well; low scoring individuals are generally high strung, self-conscious and apprehensive.	Emotional Stability
Even Tempered	High scoring individuals tend to be calm and stable. They don't often exhibit anger, hostility, or aggression.	
Optimism	High scoring individuals have a positive outlook on life and tend to experience joy and a sense of well-being.	

Table 1. ***(continued)***

Ingenuity	High scoring individuals are inventive and think "outside of the box".	Openness To Experience
Intellectual Efficiency	High scoring individuals are able to process information quickly and would be described by others as knowledgeable, astute, and intellectual.	
Tolerance	High scoring individuals are interested in other cultures and opinions that may differ from their own. They are willing to adapt to novel environments and situations.	
Physical Conditioning	High scoring individuals tend to engage in activities to maintain their physical fitness and are more likely to participate in vigorous sports or exercise.	Other

Purpose of the Current Research

TAPAS scales have been validated for use with applicants in accessioning, but have not been validated for use with NCO in-service testing and selection. The primary objective of this research was to explore the validity of the NSAB for NCO in-service testing and selection into the recruiter special duty assignment. Research conducted on the WAI provided important information regarding the key dimensions that predict recruiter performance. With this in mind, TAPAS scales were selected for the NSAB that measure the key attributes from the WAI and dimensions thought to be relevant to recruiter and NCO performance.

This report describes the approaches that were taken to evaluate the usefulness of the NSAB in two separate samples. First, we examined the construct validity of the NSAB by comparing it to the WAI in a sample of NCOs. Data collected in this sample was also used to explore relationships between the NSAB and measures of NCO performance and adjustment to Army life. Next, we examined whether the NSAB is related to performance and job attitudes in a sample of experienced recruiters.

CHAPTER 2: NSAB CONSTRUCT VALIDATION

In this chapter we describe the relationship between the WAI and NSAB. Previous research demonstrated that the WAI predicted several important criteria, including attrition from recruiting training, recruiter performance and production (Horgen et al., 2006; White et al., 2001). As mentioned in the previous chapter, the NSAB measures some of the same constructs as the WAI and can be administered in an online, unproctored environment. Therefore, our first goal was to examine the overlap between key dimensions on the NSAB and the WAI in an NCO sample. Utilizing this sample allowed us to investigate how the NSAB would perform in an NCO population, as recruiters volunteer or are selected from this population.

We begin by describing the measures, NCO sample, data collection procedures, and database development. This is followed by a description of the psychometric properties of the WAI and NSAB. Finally, we present the results of the relationship between the WAI and NSAB scales. Preliminary results on the relationship between the NSAB and NCO criterion measures are presented in Appendix A.

Description of NCO Predictor and Criterion Measures

NCO Predictor Measures

Two predictor measures were administered to NCOs: the WAI and the NSAB.

Warrior Attributes Inventory (WAI). The original WAI was based on the Noncommissioned Officer Leadership Inventory (NLSI) developed by ARI and USAREC. Extensive research on the NLSI suggested that the measure predicted individual recruiter production and attrition from recruiter training (Horgen et al., 2006). The WAI scores were the basis of a composite score that was used to construct an order of merit list for recruiter screening (Halstead, 2009).The WAI is composed of two parts. Part I is a 125-item self-report questionnaire that measures prior behaviors and reactions to specific life events that are indicative of such areas as leadership, interpersonal skills, and integrity. Part II is a 34-item self-descriptive inventory assessing personality-like traits relevant to military performance including work motivation, agreeableness, dependability, and dominance. Each item consists of four behavioral statements that represent different personality constructs. Within each tetrad, examinees are asked to select one statement that is most like them and a different statement that is least like them. Due to content overlap with other operational tests, the WAI could not be administered in an unproctored environment. To improve access for NCO testing, ARI and USAREC created a plan to develop a new measure (NSAB) that could be administered via the web in an unproctored setting.

Noncommissioned Officer Special Assignment Battery (NSAB). As described in Chapter 1, the NSAB is based on the TAPAS and is a non-cognitive assessment of 18 personality dimensions. This measure was specifically developed to resist faking by administering pairs of statements that represent different personality constructs and asking respondents to choose the statement that best describes him or her. The key to this approach was using the MDPP format for test construction and scoring. When forming pairs for the MDPP format, TAPAS balances the two statements in terms of social desirability and extremity on the dimensions they assess. A

difficult measurement issue was solved by adding a small number of unidimensional item pairs in with the multidimensional pairs (i.e., the MDPP items), which are needed to identify the latent trait metric and yield normative scores using the MDPP format (Stark, 2002; Stark, Chernyshenko, & Drasgow, 2005). TAPAS scoring is then based on the MDPP item response theory model originally proposed by Stark (2002). A series of equations are solved numerically to produce a vector of latent trait scores for each respondent as well as standard errors. The static, non-adaptive form of the NSAB was administered either electronically or via paper-and-pencil to NCOs because computer access was not always available and we wanted to use the same static form across all nine sites.

NCO Criterion Measures

The NCO criterion measures are described in Appendix A.

NCO Data Collection

NCO Participants

Predictor (WAI, NSAB) and criterion data (Army Life Questionnaire [ALQ], performance rating scales) were collected from 348 NCOs and 313 supervisors from March through September 2010. Data were obtained from NCOs at nine different sites, including Forts Hood, Drum, Richardson, Gordon, Sill, Bragg, Carson, and Benning, and Schofield Barracks. Summary information regarding key demographic characteristics of the participants is presented in Appendix A, Tables A-1 through A-4. The majority of the participants were Caucasian (51.7%) males (84.5%) with an average of approximately seven years in the Army. ARI requested participation from NCOs (E-5s and E-6s) and their first line supervisors. We expanded the pool of participants to include E-4s to meet the sample size requirement for the analyses. Thus, the majority of our sample consists of E-4s (19.8%), E-5s (59.2%), and E-6s (12.1%).

Data Collection Procedures – NCO Sample

All of the assessments were collected in proctored testing sessions and were administered electronically or with paper-and-pencil measures, depending on the facilities that were available. PDRI proctors used a test administration protocol to ensure that standardized test administration procedures were used across facilities and testing modalities and that participant information and predictor measures were kept secure at all times.

NCOs participated in the testing sessions for about 2 hours and their supervisors participated for about 30 minutes. At the beginning of each predictor testing session, NCOs listened to a short briefing and then completed a privacy act and consent form outlining the details and purpose of the research. Finally, NCOs completed four measures: 1) a demographic and background information form; 2) the NSAB; 3) the WAI; and 4) the ALQ.

Performance rating data were collected from the first line supervisors identified by the NCO participants. NCOs were rated by only one supervisor. Supervisors listened to a short briefing and then completed a privacy act and consent form outlining the details and purpose of

the research. Before supervisors completed the rating task, we conducted a rater training session that was designed to: 1) orient raters to the rating task; 2) familiarize raters with the performance dimensions and how each is defined; 3) train raters to use the behavioral anchors to make their performance ratings; 4) describe common rater errors (e.g., halo) and how to avoid them; and 5) encourage raters to be as accurate as possible. Supervisors then completed their performance ratings of subordinates.

Database Development

Separate databases were first developed for the WAI, NSAB, ALQ, and supervisor rating data for each post. Data from paper and pencil administrations were combined with data collected electronically and a final database was created for the key analyses.

Database Cleaning

We used several steps to clean and eliminate poor-quality data from the database. The measures collected using paper and pencil were scanned and then combined with the electronic measures. We checked the data for impossible values, random responding, lack of variance in responding, and missing data. Information from the data collection problem logs was also used to identify poor quality data. A total of 16 cases were removed due to poor quality, missing data, etc. (see Table 2). A total of 294 cases had data on all of the predictor and criterion measures.

Table 2. *Final Sample Sizes*

Measure	# Cases Dropped	Final N
WAI	14	324
NSAB	0	342
ALQ	0	336
Supervisor Rating	2	313
TOTAL	16	294

NSAB and WAI Results

Our primary goal in the NCO data collection was to investigate the construct validity of the NSAB by examining the relationship between the WAI and NSAB scales. Means, standard deviations, and correlations between the NSAB scales are shown in Table 3. Table 4 provides the correlations between the NSAB scales, WAI Part I, WAI Part II, and the WAI Recruiter Selection Composite.

Table 4 shows that a number of the NSAB scales were significantly correlated with the scales in the WAI Parts I and II. For example, the NSAB Dominance scale was correlated .50 with the WAI Part II Leadership Scale, and NSAB Physical Conditioning was correlated .46 with the WAI Part II Physical Conditioning scale. In addition, the NSAB Sociability scale was correlated .46 with the WAI Part I Sociability scale, and NSAB Dominance was correlated .43 with the WAI Part I Emergent Leadership scale. A number of other NSAB facets also had significant correlations with the WAI scales in Parts I and II. Thus, these scales share similar content.

Most importantly, Table 4 also shows that the NSAB scales were significantly correlated with the WAI Recruiter Selection Composite which was used to develop an order of merit list to select NCOs for recruiting duty (Halstead, 2009). The WAI composite was correlated .39 with the NSAB Dominance scale, .26 with the Achievement scale, and .26 with Intellectual Efficiency. Because the current composite represents a combination of several WAI scales, we also examined the regression of the WAI composite onto the NSAB scales. The multiple R for this analysis was .49 and the adjusted R was .44, indicating that a combination of the NSAB scales was strongly correlated with the current composite.

The criterion measure results and preliminary validity analyses are presented in Appendix A.

Table 3. ***Means, Standard Deviations, and Correlations Between the NSAB Scales***

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Cooperation	-																	
2. Dominance	-.09	-																
3. Even-Tempered	.14	-.18	-															
4. Attention-Seeking	.12	.18	-.11	-														
5. Selflessness	.10	-.09	.14	.03	-													
6. Achievement	-.17	.29	-.14	.07	-.15	-												
7. Ingenuity	-.10	.30	-.13	.05	-.06	.15	-											
8. Intellectual Efficiency	-.14	.25	-.06	.05	-.12	.21	.22	-										
9. Adjustment	-.03	.09	.06	.04	-.01	-.01	.17	.13	-									
10. Order	-.10	.00	-.13	-.07	-.11	.17	.02	-.05	-.12	-								
11. Physical Conditioning	-.03	.20	-.09	.08	-.10	.31	.01	.05	-.03	.09	-							
12. Responsibility	-.14	.20	.04	-.18	.13	.21	.05	.07	-.01	.08	.08	-						
13. Self-Control	-.06	-.11	.23	-.16	.04	.03	-.18	.08	-.05	.04	.03	.13	-					
14. Sociability	.06	.32	-.13	.29	-.03	.11	.21	.15	.12	.05	.02	.09	-.25	-				
15. Tolerance	.00	-.04	.18	-.02	.25	.05	.04	.01	-.01	-.08	.08	.09	.04	.04	-			
16. Non-Delinquency	.20	-.15	.11	-.12	.14	.01	-.23	-.18	-.15	.05	-.01	-.06	.15	-.10	.07	-		
17. Consideration	.29	-.08	.12	.19	.32	-.14	-.01	-.19	-.12	.00	-.06	.02	-.14	.08	.18	.08	-	
18. Optimism	.12	.30	.07	.11	-.05	.12	.11	.15	.24	-.11	.26	-.01	.09	.22	.01	-.06	-.04	-
Mean	-.57	.23	.21	-.24	-.64	.23	.10	.21	.27	-.16	.39	-.32	-.07	-.14	-1.01	-.27	-.28	.10
Standard Deviation	.52	.64	.53	.62	.57	.61	.73	.71	.66	.68	.71	.57	.69	.64	.71	.71	.65	.78

Note. Bold values are significant at the .05 level. The sample size for all of the correlations presented in this table was 342.

Table 4. ***Correlations Between the NSAB and WAI Part I and Part II Scales***

NSAB Scales	WAI Scales															
	Validity	Work Orientation	Leadership	Dependability	Adjustment	Agreeableness	Physical Conditioning	Lie Scale	Emergent Leadership	Social Perceptiveness	Sociability	Hostility	Self-Esteem	Empathy	Work Motivation	Scores on the Current WAI Composite
Cooperation	.03	-.05	-.08	.04	.00	.19	-.10	.05	-.12	.02	.17	-.03	-.15	.14	-.13	-.06
Dominance	.11	.21	.50	-.13	.16	-.20	.18	.18	.43	.18	.23	.15	.32	-.19	.30	.39
Even-Tempered	.09	.02	-.11	.23	.21	.37	-.01	-.04	-.03	.01	.06	-.23	-.01	.18	-.01	-.08
Attention-Seeking	.05	-.01	.14	-.25	.11	-.04	.04	.00	.25	.21	.41	.12	.06	.05	.08	.13
Selflessness	-.02	.10	.00	.09	.06	.22	.00	.05	-.01	.07	.14	-.09	-.04	.41	.13	-.04
Achievement	.07	.41	.30	.00	.04	-.12	.13	.10	.30	.14	.10	.05	.29	-.11	.36	.26
Ingenuity	.02	.06	.22	-.20	.04	-.10	-.06	-.08	.30	.16	.21	.20	.17	-.11	.25	.23
Intellectual Efficiency	.06	.23	.28	-.02	.15	-.08	.05	.09	.31	.12	.10	.07	.34	-.11	.27	.26
Adjustment	.05	-.03	.02	-.13	.32	-.11	.02	.07	.06	-.05	.07	.04	.12	-.21	.06	.03
Order	.16	.06	-.04	.04	-.23	.00	-.01	.09	.02	.07	-.06	.03	-.02	.00	.05	.01
Physical Conditioning	.09	.19	.13	.10	.12	-.02	.46	.05	.16	.10	.10	-.06	.23	-.07	.16	.16
Responsibility	.03	.22	.23	.14	.06	.07	.10	.08	.14	.15	-.02	.02	.13	.08	.16	.09
Self-Control	.03	.11	-.09	.22	.00	.19	.01	-.01	-.12	-.01	-.24	-.23	.04	.07	-.01	-.07
Sociability	-.06	.06	.37	-.19	.15	-.14	.04	.07	.32	.19	.46	.13	.12	-.07	.13	.23
Tolerance	.01	.01	.02	.03	.05	.17	-.01	.09	.10	.17	.15	-.06	.07	.19	.11	.01
Non-Delinquency	.12	.00	-.18	.24	-.07	.10	.03	.10	-.21	-.09	-.14	-.17	-.19	.11	-.11	.01
Consideration	-.03	-.02	-.03	-.05	-.01	.21	-.07	.07	.04	.20	.24	.10	-.04	.41	.02	-.01
Optimism	-.01	.18	.24	.01	.38	.06	.20	.02	.25	.09	.16	-.15	.24	-.07	.21	.12

Note. Bold values are significant at the .05 level. The sample sizes for these correlations range from 322 to 335.

Summary

Our primary focus in the NCO data collection was to confirm that the NSAB demonstrated significant overlap with the key dimensions on the WAI that had predicted recruiter performance in previous research. The correlations between the NSAB and the WAI scales indicate that the two measures cover similar content, especially on the key scales that were related to recruiter performance in previous research. Further, when comparing the WAI to the NSAB validities, several NSAB scales outperformed the WAI recruiter selection composite (see Appendix A, Table A-12). These results suggest that the NSAB is a highly promising measure for predicting recruiter performance. Our next step was to examine the validity of the NSAB in a sample of recruiters to more directly test the relationships between the NSAB scales and recruiter success.

CHAPTER 3: NSAB CRITERION VALIDATION FOR RECRUITERS

In this chapter we describe the methodology and results of analyses examining the potential of the NSAB to predict recruiter performance, commitment, job stress, and fit with the recruiting job. We first describe the methodology used for this research. We then present the correlation and regression analyses that were used to examine the validity of the measure.

We first conducted a pilot test with students in the Army Recruiting Course at the Recruiting and Retention School (RRS). The Army Recruiter Course (ARC) is designed to teach NCOs the skills needed for recruiting duty. All recruiters must successfully complete the course before they begin recruiting.

Next, we collected data from experienced recruiters operating in the field. Experienced recruiters were defined for the purposes of this research as detailed recruiters who had been on recruiting duty for between 16 and 35 months. We selected this range because recruiting experts indicated that, at 16 months on recruiting duty, recruiters are fully trained and will have reached their full performance levels. Also, previous research indicated that recruiter performance measures become more reliable after about a year on recruiting duty (Horgen et al., 2006). At 36 months, recruiters either convert their MOS to 79R or return to their previous MOS or another duty assignment.

Predictor data were collected from both ARC students and experienced recruiters, and criterion data were collected on experienced recruiters (see Table 5). Predictor and criterion data were collected via web-based instruments hosted by USAREC and ARI. While our primary purpose was to collect data from experienced recruiters, we also collected data from ARC students to: 1) pilot test the online predictor measures to ensure that they were working properly before administering to recruiters in the field, and 2) provide data to compare score distributions with the experienced recruiter sample. The ARC student pilot test is described in detail in Appendix B.

Table 5. ***Online Instruments Administered to the Recruiting Samples***

	ARC Students	Detailed Recruiters
NSAB (online version)	X	X
Recruiting Life Questionnaire	-	X
Performance Rating Scales	-	X

Description of Recruiter Predictor and Criterion Measures

Recruiter Predictor Measure

The computerized adaptive version of the NSAB was administered to both the experienced and student recruiter samples. Because the NSAB is described in detail in Chapter 2, we do not describe it again here.

Recruiter Criterion Measures

Two instruments were used to collect criterion data from experienced recruiters, the Army Recruiter Performance Rating Scales (Appendix C) and the Recruiting Life Questionnaire (Appendix D). To develop the criterion measures, we conducted two workshops in June and October 2010. In June, we were also briefed by the Commandant, Command Sergeant Major, and other senior personnel at the Recruiting and Retention School regarding recruiter training, the current recruiting environment, and recruiting job requirements. In the June workshop, we conducted in-depth interviews with five ARC instructors at the Recruiting and Retention School at Fort Jackson, South Carolina. Instructors from the ARC were used as subject-matter experts (SMEs) because they are chosen from among the top recruiters in the field and, therefore, have a thorough understanding of the necessary performance requirements of the recruiter job. During the interviews, we gathered information on the current recruiting environment, recruiter tasks and procedures, and recruiter performance requirements. ARC instructors also reviewed a set of recruiter rating scales developed in 2001 (Borman et al., 2001). Thus, we developed behavior-based rating scales for Army recruiters by integrating current Army recruiter performance information with previous Army recruiter rating scale development efforts.

To begin the process of updating the original rating scales, we asked the instructor SMEs to determine the appropriateness of the original Army recruiter performance categories for evaluating the performance of current Army recruiters and to identify where changes to the behavioral definitions of the original categories might be necessary. Each instructor was given a copy of the original Army rating scales and asked to determine whether the existing performance categories were still relevant for the current recruiter job and to identify terminology differences between the existing scales and current practice. The instructors agreed that the existing categories were, in general, relevant for current recruiter performance. However, the instructors did suggest some revisions, including terminology updates, revisions due to changes in recruiting technology, a change in focus from “sales” to “counseling and mentoring”, and changes related to moving from the Delayed Entry Program to the Future Soldier Training Program.

In October 2010, we conducted additional workshops with six Recruiting and Retention School division chiefs and the Command Sergeant Major to provide an additional review of the Army Recruiter Performance Rating Scales. There were only very minor wording changes suggested during this review and we revised the scales, as necessary, to create the final set of rating scales.

During the June and October 2010 workshops we also asked the SMEs to review the Recruiting Life Questionnaire. This questionnaire was designed to collect recruiter demographic, background, and experience information, as well as criterion-related information regarding recruiter satisfaction, fit, and commitment. We developed new items and adapted several items from the Army Life Questionnaire for use in a recruiting-specific environment. For example, “My MOS is a good match for me” was changed to “Recruiting is a good match for me”. Recruiting instructor SMEs reviewed the questionnaire and provided clarification on recruiting-specific terminology, and background, experience, awards, and training items. Based on their recommendations, several modifications were made to the questionnaire content. The final versions of the two criterion instruments are described below.

Army Recruiter Performance Rating Scales. The Army Recruiter Performance Rating Scales were designed to be completed by the supervisors and peers of recruiters and assess recruiters' day-to-day job performance. The final Army Recruiter Performance Rating Scales include the following dimensions: 1) Locating and Contacting Qualified Prospects; 2) Gaining and Maintaining Rapport; 3) Obtaining Information From and About Prospects and Making Good Person-Army Fits; 4) Counseling/Mentoring Skills; 5) Future Soldier Training Program; 6) Establishing and Maintaining Good Relationships in the Community; 7) Organizing Skills/Processing Skills/Time Management; 8) Supporting Other Recruiters and USAREC; and 9) Overall Performance. Within each performance dimension, statements describe behaviors to anchor the 10-point rating scale. Raters were asked to compare observed recruiter behavior with the statements on each dimension to provide recruiter job performance ratings. On each dimension, raters could indicate they had not had the opportunity to observe the recruiter's performance instead of selecting a rating.

Recruiting Life Questionnaire. The Recruiting Life Questionnaire (RLQ) is a self-report measure that contains demographic and background information items, as well as recruiter job satisfaction, recruiting job fit and affective commitment, Army affective commitment, satisfaction with recruiting training and development opportunities, and recruiting career continuance items. Participants responded to the items using a Likert scale (1=strongly disagree to 5=strongly agree). In addition, there are items regarding recruiting awards received, reasons for becoming a recruiter, amount of time spent on recruiting duty overall, and amount of time spent on specific recruiting tasks.

Next, we describe the data collection and results for the experienced recruiter sample. The pilot test data collection procedures and results are described in Appendix B.

Experienced Recruiter Data Collection

Data Collection Procedures – Experienced Recruiter Sample

Data were collected from experienced recruiters over a three month period from August through October 2011. All of the data were collected from experienced recruiters and their peer and supervisor raters through a set of web-based assessments. The recruiter assessment was split into two parts: 1) Part I, the NSAB, and 2) Part II, consisting of background and demographic questions, the Recruiting Life Questionnaire, and peer and supervisor rater nominations. Recruiters accessed Part I, the web-based NSAB, through the U.S. Army Accessions Command Enterprise Portal, and Part II through ARI's survey administration site. Peers and supervisors accessed the web-based performance ratings through a separate ARI survey administration site. A proctored pilot test was conducted with 11 recruiters in late June 2011 to verify that the assessment instructions were clear and to test the web-based data collection procedures. We also conducted a pilot test of the rating data collection in mid-July 2011 with the peers and supervisors nominated by the recruiters who participated in the pilot test to test the web-based rating scale data collection procedures.

The full data collection began in August 2011 with an email announcement distributed to U.S. Recruiting Command (USAREC) personnel. This was followed by an email announcement sent directly to 2,289 experienced recruiters with between 16 and 35 months of recruiting

experience. Email reminders were sent to encourage additional recruiter participation. This phase of the data collection was completed at the end of October 2011.

Recruiters nominated up to three peers and a station commander or First Sergeant (supervisor raters) with whom they had worked closely to provide performance ratings. These raters received an email in early November identifying the recruiter(s) they were being asked to rate and a link to the web-based performance rating scales. A reminder email was sent to raters to encourage additional participation and data collection was completed at the end of November 2011.

Recruiting Database Development and Cleaning

After the data collection was completed, three databases were created (Part I, Part II, and rating data). Next, we began the process of cleaning and aggregating the data to develop a final database which was used for analyses. Because recruiters had to access the NSAB (Part I) separately from Part II, there were some cases that had NSAB data only, and others who had Part II data (background, RLQ, rater nominations) only. For those recruiters who did not complete Part II, we are missing demographic, background, and RLQ data. We used several steps to clean and eliminate poor-quality data from the database. Each database was checked for impossible values, random responding, lack of variance in responding, missing data, or multiple responses (i.e., recruiters or raters who completed the instruments more than once). We also screened out individuals who endorsed two items that we created to check for careless responding (recruiters who reported they had recruited less than two people in the last year or had not attended any NCOES schools). All of the recruiters in our sample would have attended an NCOES school and would have recruited two or more individuals into the Army within the year.

Detailed Recruiter Demographics and Background

Demographic and background data on the experienced recruiter participants are presented in Appendix E, Tables E-1through E-3. Demographic data is available for only those recruiters who completed Part II (N=854). The majority of the participants were white (74.7%), male (94.0%), and had some college education (60.9%). Most participants were E-5s (25.0%) or E-6s (58.8%) with an average of about eleven years in the Army and just over two years in recruiting. All six recruiting brigades were represented in our sample. Over 75% of the participants were selected (vs. volunteered) for recruiting duty. Finally, 57.9% of the experienced recruiters operated under the team recruiting system, 33.2% operated under the Legacy recruiting system, and 8.9% operated under the Pinnacle recruiting system (see Table 6). In the Legacy recruiting system, each recruiter is responsible for every recruiting task and has to meet individual recruiting objectives. In the team and Pinnacle recruiting systems, recruiters are aligned to recruiting roles (e.g., prospecting, processing) that focus on a smaller range of tasks allowing each recruiter to specialize in one area of recruiting. The Pinnacle system is a team-based structure with team recruiting goals. We also had representation from small, medium, and large size recruiting stations.

Table 6. ***Recruiter Entry Status, Company Recruiting System, and Station Size***

	N	*%*
Recruiter Entry Status		
Volunteered Thru Recruit-the-Recruiter Team	141	16.8
Volunteered Thru Branch	64	7.6
Selected for Recruiting Duty	634	75.6
Missing	15	---
Total	854	100
Company Recruiting System		
Team Recruiting	476	57.9
Pinnacle	73	8.9
Legacy	273	33.2
Missing	32	---
Total	854	100
Number of Recruiters in Station		
1-2	96	11.6
3-4	204	24.7
5-6	263	31.9
7 or more	262	31.8
Missing	29	---
Total	854	100

Recruiters indicated that they spent their time distributed across recruiting tasks, with an average of 40% time spent in prospecting tasks and somewhat less time in counseling/mentoring (15%), processing (20%), and Future Soldier Training Program (16%) tasks (see Table 7). Most recruiters reported working 8-9 hours per day (not including PT) (see Table 8).

Table 7. ***Percent Time Spent in Recruiting Tasks***

	M	*SD*
Prospecting	40.09	23.55
Counseling/Mentoring	14.65	9.98
Processing	20.02	17.48
Future Soldier Training Program	16.45	20.92
Station Commander Duties	5.49	11.91
Other	3.31	9.46

Table 8. ***Number of Hours Spent Recruiting (per day*)***

	N	*%*
5 or fewer	18	2.2
6-7	130	16.0
8-9	433	53.3
10-11	209	25.7
12 or more	23	2.8
Missing	41	---
Total	854	100

*Note: total hours do not include PT.

We also asked respondents to describe the reasons they became recruiters by checking all the responses that applied. A large majority of the participants reported that they did not volunteer for recruiting duty (70.2%). Recruiters also responded that they believed in the Army and wanted to share it with others (12.2%), they wanted to help young people (11.8%), and they thought recruiting duty would enhance their Army career (10.9%) (see Table 9).

Table 9*. If Volunteered for Recruiting Duty, Reasons for Becoming a Recruiter*

	N[a]	%
I did not volunteer	543	70.2
Able to choose the location of my duty station	70	9.1
Wanted a change from my MOS	58	7.5
Recruiting duty is career enhancing	84	10.9
Recruiting duty is necessary for promotion	46	6.0
Believe in my Service and want to share with others	94	12.2
Want to help young people	91	11.8
Ready for a challenge	76	9.8
I had no choice	54	7.0
Wanted a change from deployment	63	8.2

[a]Participants could list more than one response (i.e., reason)

Experienced Recruiter Criterion Measure Results

Recruiter Rating Scales – Rater Demographics

Recruiters nominated peers and supervisors to provide performance ratings on nine dimensions of performance. A total of 887 peer and supervisor raters provided ratings on 637 recruiters for a total of 1065 rater-ratee pairs. Peer and supervisor rater demographics are presented in Appendix F, Tables F-1 through F-5. The majority of the raters were white (79.4%), male (94.1%), and had some college education (54.9%). Most raters were E-6s (39.4%) or E-7s (40.4%) and were recruiters (63.3%) or station commanders (24.2%), and had over thirteen years of experience in the Army.

Recruiter Performance Rating Scales – Descriptives

Most raters indicated they were very familiar with the recruiters' job performance (86.2%) (see Table 10). There were 137 rater-ratee pairs where the rater indicated that he/she was "Not Very Familiar" with the recruiter's performance. In these cases, the raters were not asked to make performance ratings on these recruiters. Table 11 illustrates the distribution of ratings across the 10-point rating scale for the nine performance dimensions combined. There is a slightly negative skew, as is typical for performance ratings, with a lower percentage of ratings at the less effective end of the scale. However, while most of the ratings fall in the 6-10 range, there is reasonable variability in the ratings suggesting that raters were differentiating between less and more effective performance across dimensions.

Table 10. ***Rater Familiarity with Recruiter***

	N	*%*
Very Familiar	918	86.2
Somewhat Familiar	147	13.8
Missing	0	---
Total	1065	100

Table 11. ***Number and Percentage of Ratings at Each Scale Point***

Rating Scale Point (1=Lowest 10=Highest)	Number of Ratings	Percentage of Ratings
1	106	1.11
2	115	1.20
3	222	2.32
4	319	3.33
5	695	7.25
6	1092	11.39
7	1427	14.89
8	1890	19.72
9	1803	18.81
10	1723	17.98
Have not had opportunity to observe	116	1.21
Missing Data	77	0.80

Total number of ratings across all nine dimensions (N = 9,585).

Means, standard deviations, and interrater reliability estimates for each dimension of the rating scales are provided in Table 12. There were an average of 1.67 raters per recruiter, and the interrater reliability estimates indicate fairly good agreement among raters, particularly given the number of raters per recruiter.

Table 12. ***Recruiter Performance Rating Scales – Means, SDs and ICCs***

Dimension	Mean	Standard Deviation	ICCs[a]
Locating and Contacting Qualified Applicants	7.21	1.94	.71
Gaining and Maintaining Rapport	7.82	1.77	.68
Obtaining Information From and About Prospects and Making Good Person-Army Fits	7.54	1.76	.64
Counseling/Mentoring Skills	7.41	1.87	.70
Future Soldier Training Program	8.01	1.58	.62
Establishing and Maintaining Good Relationships in the Community	7.60	1.80	.63
Organizing Skills/Processing Skills/Time Management	7.43	1.88	.67
Supporting Other Recruiters and USAREC	7.68	1.78	.57
Overall Effectiveness/Performance	7.64	1.80	.72

Samples sizes for the performance dimensions ranged from 628-639; [a]ICC(1,k); mean number of raters per ratee=1.67

Recruiter Performance Rating Scales - Factor Analyses

Correlations between the performance ratings are presented in Table 13. As shown, the scales were highly correlated. Therefore, we conducted factor analyses to determine whether these scales could be reasonably combined to create a reduced number of criteria for examining NSAB validity.

Table 13. ***Correlations Between the Performance Rating Scales in the Recruiter Sample***

Criteria	1	2	3	4	5	6	7	8	9
1. Locating and Contacting Qualified Applicants	-								
2. Gaining and Maintaining Rapport	.79	-							
3. Obtaining Information From and About Prospects and Making Good P-A Fits	.80	.80	-						
4. Counseling/Mentor Skills	.84	.78	.82	-					
5. Future Soldier Training Program	.63	.67	.68	.68	-				
6. Establishing and Maintaining Good Relationships in the Community	.77	.72	.76	.75	.68	-			
7. Organizing, Processing, and Time Management Skills	.67	.63	.72	.72	.65	.65	-		
8. Supporting Other Recruiters and USAREC	.71	.66	.70	.72	.65	.75	.70	-	
9. Overall Effectiveness/Performance	.82	.77	.79	.83	.69	.76	.75	.79	-

Note. Bold values are significant at the .05 level. The sample sizes for these correlations range from 593 to 606.

First, we conducted an exploratory factor analysis (EFA) of the performance rating data. The scree plot shown in Figure 1 indicates a very strong first factor, indicating an essentially unidimensional factor structure. In addition, a confirmatory factor analysis (CFA) also indicated that a single factor model fit the data well (Root Mean Square Error of Approximation = .11; Comparative Fit Index = .98; Standardized Root Mean Square Residual = .02). The completely standardized factor loadings from this CFA model are shown in Table 14. Based on these results, we summed the nine performance ratings to form a single variable and examined the validity of the NSAB scales for predicting this performance rating composite.

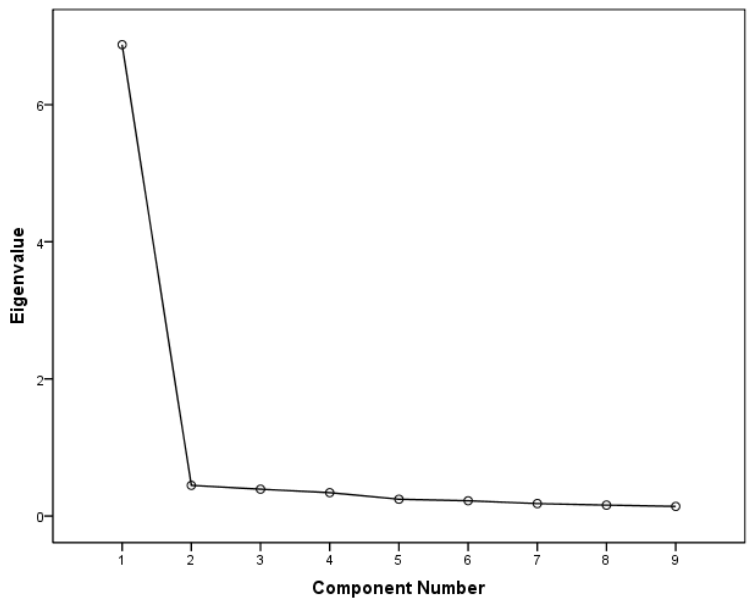

***Figure 1*. Scree Plot of the Performance Rating Scales in the Sample of Experienced Recruiters.**

Table 14. *Factor Loadings from the Single Factor CFA Model of the Performance Rating Scales in the Sample of Experienced Recruiters*

Performance Rating Scales	Completely Standardized Factor Loadings
Locating and Contacting Qualified Applicants	.90
Gaining and Maintaining Rapport	.85
Obtaining Information From and About Prospects	.89
Counseling/Mentor Skills	.90
Future Soldier Training Program	.77
Establishing and Maintaining Good Relationships in the Community	.85
Organizing, Processing, and Time Management Skills	.81
Supporting Other Recruiters and USAREC	.82
Overall Effectiveness/Performance	.91

Recruiting Life Questionnaire – Descriptives

The RLQ was made up of two sections, a multi-choice item section which includes items on self-rated recruiter performance, awards received, and recruiter career intention. Results for these items are presented in Tables 15 through 17. The distribution of awards received in the sample was somewhat limited by the items included on the awards question. Therefore, we did not include this criterion in the validity analyses.

Table 15. ***USAREC Awards***

	N[a]	*%*
NCO of the Year	15	1.8
NCO of the Quarter	33	3.9
Recruiter of the Year	26	3.0
Recruiter of the Quarter	55	6.4
Master Recruiter Badge	49	5.7
SGT Audie Murphy	5	0.6

[a]Participants could check more than one response

Table 16. ***MOS Reclassification (i.e., I plan to reclassify to 79R)***

	N	*%*
Yes	119	14.6
No	571	70.2
Undecided	116	14.3
Already Reclassified	7	.9
Missing	41	---
Total	854	100

Table 17. ***Freedom to select own assignment (i.e., If you had the freedom, what would you do?)***

	N	*%*
Remain in recruiting	231	28.4
Return to previous MOS	358	44.0
Select a new MOS	156	19.2
Leave the service	68	8.4
Missing	41	---
Total	854	100

The other section of the RLQ consisted of Likert items measuring recruiter job satisfaction, recruiting fit and affective commitment, Army affective commitment, and satisfaction with recruiting training and development opportunities. We used a rational approach to group the RLQ items into four scales based on the item content: Army commitment, recruiter job fit, recruiting stress, and training and development satisfaction. Scale reliabilities are presented in Table 18.

Table 18. *RLQ Scale Reliabilities*

Scale	*N items*	*α*
RLQ Army Commitment	2	.85
RLQ Recruiter Fit	9	.94
RLQ Recruiting Stress	5	.81
RLQ Training and Development Satisfaction	6	.82

Final Criterion Measures – Experienced Recruiter Sample

Table 19 shows the descriptive statistics for the reduced number of criteria used in the validity analyses. In addition, Table 20 provides the correlations between these criteria. As shown here, the performance ratings composite was significantly correlated with the RLQ composites. However, these correlations were generally small. Given the small correlations between these criteria, different NSAB scales may predict each criterion.

Table 19. *Descriptive Statistics for the Criteria in the Recruiter Sample*

	N	*Mean*	*Standard Deviation*	*Min.*	*Max*
Performance Ratings Composite	609	67.46	14.74	14.00	90.00
RLQ Army Commitment	808	3.33	1.14	1.00	5.00
RLQ Recruiter Fit	813	3.24	1.02	1.00	5.00
RLQ Recruiting Stress	811	3.50	.85	1.00	5.00
RLQ Training and Development Satisfaction	816	3.42	.83	1.00	5.00

Table 20. *Correlations Between the Criteria in the Recruiter Sample*

Criteria	1	2	3	4	5
1. Performance Ratings Composite	-				
2. RLQ Army Commitment	.14	-			
3. RLQ Recruiter Fit	.24	.64	-		
4. RLQ Recruiting Stress	-.14	-.41	-.52	-	
5. RLQ Training and Development Satisfaction	.21	.62	.72	-.49	-

Note. Bold values are significant at the .05 level. The sample sizes for these correlations range from 582 to 813.

NSAB Validity Results: Experienced Recruiter Sample

Table 21 provides the descriptive statistics for the NSAB scales, and Table 22 provides the correlations between these scales in the sample of experienced recruiters. Table 23 shows the correlations between the NSAB scales and each of the criteria in this sample as well. As shown in Table 23, a number of the NSAB scales were strong predictors of the criteria in the sample of experienced recruiters. Achievement, Optimism, and Sociability were three of the strongest predictors for many of the criteria. Optimism had the strongest correlations across all of the criteria. However, Sociability had the largest correlation with a .40 correlation with Recruiting Fit.

Table 21. ***Descriptive Statistics for the NSAB Scales in the Recruiter Sample***

	N	*Mean*	*Standard Deviation*	*Min.*	*Max*
Cooperation	1032	-.14	.47	-1.57	1.44
Dominance	1032	.28	.57	-1.70	2.09
Even-Tempered	1032	-.03	.57	-1.91	1.97
Attention-Seeking	1032	-.40	.54	-1.79	1.95
Selflessness	1032	-.19	.46	-1.96	1.66
Achievement	1032	.27	.62	-1.57	2.06
Ingenuity	1032	.13	.49	-1.61	1.88
Intellectual Efficiency	1032	.26	.56	-1.77	2.02
Adjustment	1032	.09	.62	-1.73	1.98
Order	1032	-.22	.53	-1.75	1.63
Physical Conditioning	1032	.16	.62	-1.78	2.06
Responsibility	1032	.36	.46	-1.06	1.87
Self-Control	1032	.07	.53	-1.73	1.53
Sociability	1032	-.15	.66	-1.90	1.88
Tolerance	1032	-.13	.55	-2.01	1.87
Non-Delinquency	1032	-.02	.53	-2.09	1.58
Consideration	1032	-.13	.50	-1.79	1.65
Optimism	1032	.22	.59	-1.87	2.28

Table 22. ***Correlations Between the NSAB Scales in the Sample of Experienced Recruiters***

NSAB Scales	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Cooperation	-																	
2. Dominance	-.09	-																
3. Even-Tempered	.38	-.08	-															
4. Attention-Seeking	.04	.16	-.03	-														
5. Selflessness	.19	.05	.16	.03	-													
6. Achievement	.04	.42	.01	.12	.15	-												
7. Ingenuity	.00	.20	-.03	.11	.11	.21	-											
8. Intellectual Efficiency	-.05	.27	-.03	.14	.03	.19	.33	-										
9. Adjustment	-.01	.17	.20	.10	-.02	.06	.13	.21	-									
10. Order	-.04	.14	-.08	-.01	-.04	.21	.00	-.02	-.06	-								
11. Physical Conditioning	-.04	.15	-.04	.07	-.02	.23	.04	.01	.11	.10	-							
12. Responsibility	.11	.22	.04	.03	.16	.33	.09	.15	.06	.09	.05	-						
13. Self-Control	.08	.08	.21	-.05	.04	.22	.05	.14	.08	.20	.03	.17	-					
14. Sociability	.25	.23	.16	.39	.20	.24	.21	.11	.11	-.03	.10	.04	-.04	-				
15. Tolerance	.24	.02	.17	.09	.31	.08	.14	.00	.03	-.04	.01	.10	.10	.29	-			
16. Non-Delinquency	.09	.06	.05	-.12	.09	.11	-.10	-.09	-.08	.15	.01	.11	.15	-.01	.00	-		
17. Consideration	.32	.09	.22	.18	.24	.14	.06	.07	-.01	.01	-.01	.10	.09	.35	.24	.09	-	
18. Optimism	.14	.19	.30	.14	.12	.19	.10	.14	.37	.04	.15	.07	.13	.31	.18	.06	.13	-

Note. Bold values are significant at the .05 level. The sample size for these correlations was 1032.

Table 23. ***Correlations Between the NSAB Scales and the Criteria in the Sample of Experienced Recruiters***

	Performance Rating Composite	RLQ Army Commitment	RLQ Recruiting Fit	RLQ Recruiting Stress	RLQ Training and Development Satisfaction
Achievement	.27	.16	.25	-.09	.14
Adjustment	.09	.04	.08	-.18	.04
Attention Seeking	.12	.07	.12	-.01	.05
Consideration	.11	.12	.24	-.12	.14
Cooperation	.07	.17	.19	-.08	.18
Dominance	.21	.02	.13	-.06	.02
Even-Tempered	.09	.20	.23	-.13	.22
Ingenuity	.03	-.04	.03	-.05	-.04
Intellectual Efficiency	.12	-.07	-.04	.02	-.05
Non-Delinquency	.10	.12	.12	-.02	.09
Optimism	.29	.25	.26	-.25	.24
Order	.06	.03	.05	.03	-.02
Physical Conditioning	.09	.02	.01	-.03	.04
Responsibility	.12	.04	.07	-.01	.04
Self-Control	.07	.06	.11	-.05	.10
Selflessness	.03	.17	.23	-.13	.21
Sociability	.14	.27	.40	-.18	.25
Tolerance	-.02	.21	.27	-.18	.24

Note. Bold values are significant at the .05 level. The sample sizes for these correlations range from 504 to 670.

As noted above, individual recruiters' performance was rated by both their peers and supervisors. Correlations between the peer and supervisor ratings of the same recruiter on each of the nine rating dimensions ranged from .33 to .57 (N=128-135). However, it is possible that the NSAB scales would differentially predict the ratings from these different sources. Therefore, we also examined the validities separately for peer and supervisor ratings and these validities are

illustrated in Table 24. For comparison, correlations with the combined performance criterion (i.e., those provided in Table 23 above) were also included. As shown in Table 24, there were some moderate differences in the validities. For example, the correlation between Optimism and peer performance ratings was .24 compared to .33 with supervisor ratings. Similarly, the correlation between Tolerance and peer ratings was -.06 compared to .12 with the supervisor ratings. Although the correlations with Tolerance were not significant, the variation in these validities illustrates the potential differences between peer and supervisor ratings. Because of the sample size limitations when examining peer and supervisor ratings separately, we continue to focus on the combined performance ratings composite in subsequent analyses. However, we also explore differences across these rating sources when applicable.

Table 24. ***Comparing the Correlations Between the NSAB Scales and Peer or Supervisor Performance Ratings***

NSAB Scales	Performance Rating Composite[a]	Peer Performance Ratings[b]	Supervisor Performance Ratings[c]
Achievement	.27	.26	.34
Adjustment	.09	.10	.06
Attention Seeking	.12	.09	.07
Consideration	.11	.09	.16
Cooperation	.07	.11	.04
Dominance	.21	.17	.25
Even-Tempered	.09	.11	.15
Ingenuity	.03	-.07	.07
Intellectual Efficiency	.12	.04	.22
Non-Delinquency	.10	.07	.09
Optimism	.29	.24	.33
Order	.06	.09	.04
Physical Conditioning	.09	.07	.09
Responsibility	.12	.14	.07
Self-Control	.07	.04	.08
Selflessness	.03	-.04	.02
Sociability	.14	.12	.15
Tolerance	-.02	-.06	.12

Note. Bold values are significant at the .05 level.

[a] N = 504.

[b] N = 215.

[c] N = 109.

We also estimated the relative validity of the NSAB scales using regression analysis. Table 25 shows the standardized weights for the NSAB scales that were significant predictors of each criterion. Again, Optimism and Tolerance were the most consistent predictors across criteria. Achievement also predicted several of the criteria. In addition, Table 26 reports the differences in the standardized regression weights for the NSAB scales when predicting peer and supervisor ratings. Again, the results indicate moderate differences across these sources.

Table 25. ***Standardized Regression Weights for the NSAB Scales that are Significant Predictors of Each Criterion in the Sample of Experienced Recruiters***

	Performance Rating Composite	RLQ Army Commitment	RLQ Recruiting Fit	RLQ Recruiting Stress	RLQ Training and Development Satisfaction
Achievement	.20	.12	.15		.10
Adjustment				-.14	
Attention Seeking					
Consideration					
Cooperation					
Dominance					
Even-Tempered		.08	.09		
Ingenuity		-.09			-.10
Intellectual Efficiency			-.09	.08	
Non-Delinquency					
Optimism	.24	.14	.10	-.16	.14
Order					
Physical Conditioning					
Responsibility					
Self-Control					
Selflessness			.07		.10
Sociability		.19	.27		.16
Tolerance	-.09	.10	.12	-.10	.12
Multiple R	.40	.41	.51	.34	.41
Adjusted R	.36	.38	.49	.30	.38

Table 26. ***Comparing the Standardized Regression Weights for the NSAB Scales that are Significant Predictors of Peer and Supervisor Performance Ratings***

NSAB Scales	Performance Ratings Composite[a]	Peer Performance Ratings[b]	Supervisor Performance Ratings[c]
Achievement	.20	.23	.28
Adjustment			
Attention Seeking			
Consideration			
Cooperation			
Dominance			
Even-Tempered			
Ingenuity			
Intellectual Efficiency			
Non-Delinquency			
Optimism	.24	.18	.33
Order			
Physical Conditioning			
Responsibility			
Self-Control			
Selflessness			
Sociability			
Tolerance	-.09		
Multiple R	.40	.40	.49
Adjusted R	.36	.28	.30

[a] N = 504.
[b] N = 215.
[c] N = 109.

Given these results, the NSAB appears to be useful for predicting the performance of Army recruiters. Therefore, we next examined the extent to which the NSAB scales could be used to select Soldiers for recruiting duty. To do so, we first combined the criteria into a single variable by creating a criterion composite using unit weights for RLQ Army Commitment, RLQ Recruiting Fit, and RLQ Recruiting Stress, and double weighting performance ratings. The goal of this step was to create a single criterion that could be used to develop a selection composite of NSAB scales. We then regressed this criterion composite onto the NSAB scales and estimated the regression weights for each scale. Based on these analyses, we identified the NSAB scales that were significant predictors of the criterion and used these scales to form a composite for recruiter selection. The multiple R for this model was .48 and the adjusted multiple R was .47, suggesting that the NSAB scales were strong predictors of the criterion. Due to sensitivity concerns, detailed results are reported separately in a limited distribution table. Those interested in obtaining a copy of this table should contact ARI authors for further information.

Using the NSAB scales and the weights, we calculated an NSAB composite score for each individual in the sample. Table 27 shows the significant zero-order correlations between these predicted scores and the various criteria measured in this dataset. Overall, the NSAB composite was a relatively strong predictor of the criteria for experienced recruiters. The highest correlation for this composite (.44) was with recruiting fit, suggesting that high scores on the NSAB composite are associated with better fit between the Soldier and his or her job as a recruiter. Individuals who receive high scores on the NSAB composite were also likely to be more committed to the Army, satisfied with the training and development opportunities that they receive, and receive higher performance ratings from their peers and supervisors. In other words, the composite developed here was associated with a number of important criteria for recruiter performance.

Table 27. *Significant Correlations Between the Criterion Measures and the Predicted Scores on the NSAB Composite*

Criteria	NSAB Composite
Criterion Composite	.48
Performance Ratings Composite	.31
RLQ Army Commitment	.35
RLQ Recruiting Fit	.44
RLQ Recruiting Stress	-.26
RLQ Training and Development Satisfaction	.34

Note. The sample sizes for these correlations range from 504 to 670.

Figure 2 illustrates the practical importance of the relationships shown in Table 27. This figure shows quintile plots predicting Army commitment, recruiting fit, recruiting stress, and the performance rating composite using the NSAB composite developed here. On the X-axes of these plots are the quintiles of recruiters based on the NSAB composite score (i.e., the 20% of recruiters with the lowest NSAB composite scores are in the first quintile, etc.). On the Y-axes are average scores on the criterion variables. The Y-axes for these plots are scaled to range from +/- 1 standard deviation from the mean of the criterion.

As shown in Figure 2, the NSAB composite was useful for identifying high performing recruiters. For example, test-takers in the bottom 20% on the NSAB composite were less committed to the Army, experienced more recruiting stress, were rated as lower performers by their peers and supervisors, and had lower perceptions of fit with their job than those in the highest 20%. Thus, the validities reported above can have important practical implications for selecting recruiters.

Figure 3 illustrates the percentages of ARC students with scores on the NSAB composite that correspond to the quintiles examined above. In other words, using the cut scores that defined the quintiles in the sample of experienced recruiters, we calculated how many students in the ARC would have scored in each category on the overall composite. Figure 3 shows that the majority of the students would have scored in the highest quintile for experienced recruiters.

Given the validity of the NSAB composite shown in Figure 2, these results suggest that many of the ARC students would perform well in this job. However, a number of individuals also scored in the bottom quintiles and, therefore, may not be high performers. In other words, it appears that the NSAB can be used to identify high potential ARC students. Nevertheless, a longitudinal validation investigation is necessary to clearly examine the validity of the NSAB for predicting the performance of ARC students over time.

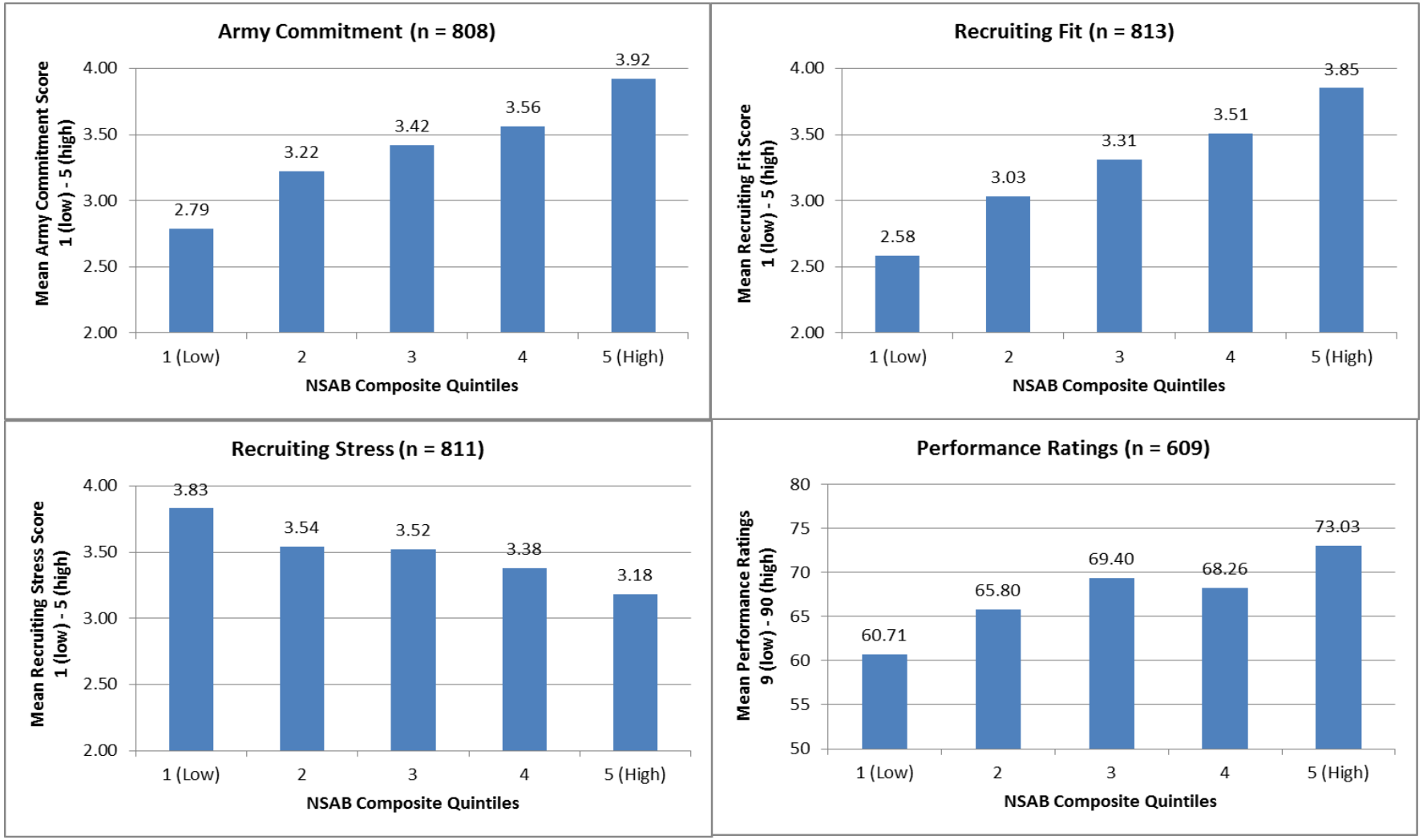

***Figure 2*. Quintile plots of the relationships between the NSAB composite and Army commitment, recruiting fit, recruiting stress, and the performance rating composite.**

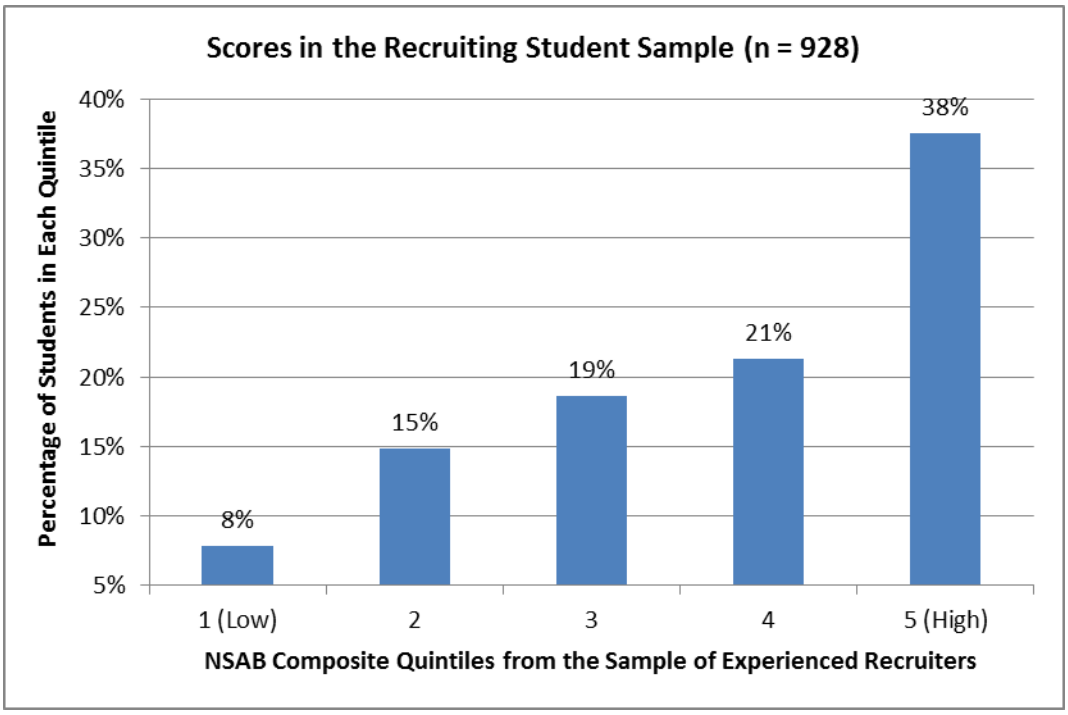

Figure 3. **Percentages of ARC students in each of the NSAB composite quintiles identified in the sample of experienced recruiters.**

Summary

Our primary focus in the recruiting data collection effort was to examine the potential of the NSAB to predict success in recruiting. The results demonstrated that several NSAB scales are significantly related to a number of recruiting success criteria. These results are consistent with past research examining the predictors of recruiter success (White et al., 2001) and suggest that the NSAB may be useful for selecting high potential individuals for recruiting duty assignment.

CHAPTER 4: CONCLUSION

The Army has conducted a series of research activities to develop an instrument for NCO duty assignment. As part of this research, ARI developed the Warrior Attributes Inventory (WAI) (White, Borman, & Bowles, 2001). Predictive and concurrent validation research results demonstrated that the WAI was related to recruiter performance, production, and attrition from recruiter training. However, the Army needs a new instrument that can be more easily administered to NCOs in an online, unproctored environment. Delivery through an unproctored, web-based application would make it far easier for Soldiers to complete the assessment in a timely and efficient manner. TAPAS, which was specifically designed for computerized administration, provides a compelling alternative to the WAI for this purpose. Moreover, TAPAS has the added advantage of being resistant to faking, which has the potential to increase the validity of the measure in operational settings. As such, TAPAS was used as the basis for a new instrument, the Noncommissioned Officer Special Assignment Battery (NSAB).

The goal of the current project was to explore the potential validity of the NSAB for NCO in-service testing and selection for recruiting duty. Initial results demonstrated a significant overlap between the NSAB and key dimensions on the WAI that had predicted recruiter performance in previous research. This, along with the additional scales available on the NSAB suggests that the NSAB is a highly promising measure for predicting recruiter performance.

Our next step was to examine the validity of the NSAB with a sample of experienced recruiters to more directly test the relationship between the NSAB scales and recruiter criteria. Results showed that a composite of NSAB scales was useful for identifying high performers. Recruiters in the top 20% on the NSAB composite were more committed to the Army, experienced less stress in their job, reported a higher degree of fit with recruiting, and received higher performance ratings than those in the lowest scoring 20%. In sum, the preliminary evidence suggests that the NSAB can help to identify Soldiers with high potential for recruiting duty success.

Although these results are highly encouraging from both a theoretical and quantitative standpoint, these efforts should be interpreted as a preliminary investigation. Building on the promising foundation of the current project, future research should evaluate the validity of the NSAB in a longitudinal, predictive design, and under operational conditions. This type of design would allow the Army to more closely estimate the validity of an operational NSAB.

The content and features of the NSAB also have potential for NCO selection for other assignments such as drill sergeant, instructors, or special operations. Previous research has demonstrated that the NLSI not only predicted recruiter success, but also predicted supervisor ratings of performance in a sample of drill sergeants (Kubisiak et al., 2005). Given the close correspondence between the constructs measured on the WAI (or NLSI) and those measured on the NSAB, and the predictive validity of the NSAB, the NSAB has great potential for in-service testing for drill sergeant duty assignments. Thus, the authors recommend further testing of the NSAB for use as an in-service selection tool for other NCO duty assignments. As a result of the success of the current research, ARI is pursuing implementation of the NSAB on an Army-wide accessible platform to support further testing and evaluation of the NSAB for assignments such as drill sergeant or special operations.

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APPENDIX A. NCO ANALYSES

NCO Criterion Measures

NCO Criterion Measures

Two sets of criterion measures were administered as part of the NCO data collection: the NCO Performance Rating Scales and the Army Life Questionnaire. These two criterion measures are described in more detail below.

NCO Army-Wide Performance Rating Scales. The NCO Performance Rating Scales were developed by ARI to measure day-to-day in-unit job performance across MOS. The scales consist of fourteen behaviorally-anchored rating scales: 1) MOS/occupation-specific knowledge and skill; 2) common task knowledge and skill; 3) communication skill; 4) level of effort and initiative on the job; 5) adaptability; 6) self-management and self-directed learning skill; 7) acting as a role model; 8) relating to and supporting peers; 9) cultural tolerance; 10) leadership skills; 11) concern for Soldier quality of life; 12) training others; 13) problem solving/decision making skill; 14) and information management. Additionally, there is a scale measuring senior NCO potential, and an independent, single item evaluation of overall performance. These scales were completed by the NCOs' supervisors.

Army Life Questionnaire. The Army Life Questionnaire (ALQ) was completed by NCOs to assess their attitudes and experiences in the Army (see Van Iddekinge, Putka, & Sager, 2005 for more information on the ALQ). The ALQ contains several scales including: 1) disciplinary actions; 2) affective commitment; 3) Army fit; 4) attrition cognitions; 5) career intentions; 6) MOS fit; 7) MOS satisfaction; 8) reenlistment intentions, as well as single-item measures such as the Army Physical Fitness Test (APFT) score, and the weapons qualification score. There are two versions of the ALQ, a computerized version and a paper-and-pencil version that was used if computers were not available. The ALQ item content is identical across the two versions.

NCO Participant Demographics

Summary information on key demographic characteristics of the participants is presented in Tables A-1 through A-4.

Table A-1. *NCO Gender and Ethnicity*

	N	*%*
Gender		
Male	294	84.5
Female	42	12.1
Missing	12	3.4
Total	348	100.0
Hispanic, Latino, or Spanish Origin		
Yes	52	15.0
No	283	81.3
Missing	13	3.7
Total	348	100.0
Race		
American Indian or Alaska Native	7	2.0
Asian	9	2.6
African-American	52	14.9
Native Hawaiian/Pacific Islander	1	0.0
White	180	51.7
2 or more selected	11	3.2
Missing	88	25.3
Total	348	100.0

Table A-2. *NCO Pay Grade*

	N	*%*
Grade		
E4	69	19.8
E5	206	59.2
E6	42	12.1
E7	1	.3
Missing	30	8.6
Total	348	100.0

Table A-3. *NCO Age and Time in Service*

	M	*SD*
Age	27.69	5.2
Time in Service (In Years)	6.78	3.7

Table A-4. *NCO MOS*

MOS Series	*N*	*%*
11 – Infantry	94	27.00
13 – Artillery	22	6.32
19 – Armor	17	4.89
21 – Engineering	13	3.74
25 – Signal	39	11.21
31 – Law Enforcement	5	1.44
42 – Administrative	12	3.45
68 – Medical	15	4.31
74 – Chemical Operations	14	4.02
88 – Transportation	18	5.17
91 – Medical	30	8.62
92 – Logistics	32	9.2
94 – Electronic Maintenance	9	2.59
Other	14	4.02
Missing	14	4.02
Total	348	100.0

NCO Criterion Measure Results

NCO Performance Rating Scales – Descriptives

Each NCO was rated by his/her supervisor on fourteen dimensions of performance, a rating of senior NCO potential, and an independent, single item evaluation of overall performance. A total of 313 supervisor raters provided ratings for 313 NCOs across all nine data collection sites. Supervisor demographics are presented in Tables A-5 and A-6.

Table A-5. *Supervisor Gender and Ethnicity*

	N	*%*
Gender		
Male	271	86.6
Female	42	13.4
Total	313	100.0
Hispanic, Latino, or Spanish Origin		
Yes	51	16.3
No	254	81.1
Missing	8	2.6
Total	313	100.0
Race		
American Indian or Alaska Native	5	1.6
Asian	6	1.9
African-American	50	16.0
Native Hawaiian/Pacific Islander	1	0.3
White	197	62.9
2 or more selected	9	2.9
Missing	45	14.4
Total	313	100.0

Table A-6. *Supervisor Grade*

	N	*%*
Grade		
E5	29	9.3
E6	74	23.6
E7	172	55.0
E8	30	9.6
E9	1	0.3
Missing	7	2.2
Total	313	100.0

As is typical of performance ratings, there is a slightly negative skew to the distribution of the performance ratings across the 7-point rating scale for the fourteen performance dimensions, with a lower percentage of ratings at the less effective end of the scale. However, while most of the ratings fall in the 5-6 range, there is reasonable variability in the ratings, suggesting that raters were differentiating between less effective and more effective performance across dimensions. The means and standard deviations of the performance ratings are provided in Table A-7 for each dimension. Again, these results show that there was reasonable variability in the ratings.

Table A-7. ***Correlations Between the NCO Performance Rating Scales***

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Scales																
1. MOS Knowledge and Skill	-															
2. Common Task Knowledge and Skill	.66	-														
3. Communication Skill	.43	.55	-													
4. Level of Effort and Initiative	.54	.58	.52	-												
5. Adaptability	.50	.55	.49	.57	-											
6. Self-Management and Self- Directed Learning Skill	.53	.59	.55	.62	.50	-										
7. Acting as a Role Model	.44	.56	.48	.55	.45	.59	-									
8. Relating to and Supporting Peers	.48	.51	.49	.50	.51	.48	.55	-								
9. Cultural Tolerance	.17	.25	.18	.12	.28	.19	.29	.45	-							
10. Leadership Skills	.55	.60	.54	.57	.47	.59	.62	.58	.28	-						
11. Concern for Soldier Quality of Life	.32	.50	.47	.43	.42	.45	.52	.56	.41	.57	-					
12. Training Others	.61	.62	.53	.60	.52	.59	.59	.62	.24	.66	.61	-				
13. Problem-Solving/Decision-Making Skill	.54	.60	.55	.61	.51	.61	.55	.59	.31	.68	.57	.69	-			
14. Information Management	.52	.56	.63	.50	.54	.59	.44	.51	.26	.60	.48	.58	.64	-		
15. Senior NCO Potential	.56	.63	.52	.62	.52	.61	.63	.57	.23	.62	.47	.64	.61	.60	-	
Composite																
16. Performance Ratings Composite	.70	.78	.72	.76	.71	.77	.75	.76	.42	.81	.70	.83	.82	.76	.76	-
Mean	5.27	5.37	5.01	5.13	5.06	5.05	5.05	5.29	5.63	5.17	5.35	5.10	5.12	5.17	4.95	5.19
Standard Deviation	1.15	1.14	1.29	1.45	1.26	1.25	1.52	1.26	1.05	1.27	1.20	1.35	1.23	1.11	1.52	.93

Note. Bold values are significant at the .05 level. Sample sizes for these correlations ranged from 288 to 313.

NCO Performance Rating Scales - Factor Analyses

Correlations between the performance ratings are also presented in Table A-7. As shown, a number of these scales were highly correlated. Therefore, we conducted factor analyses to determine whether these scales could be reasonably combined to create a reduced number of criteria for examining WAI and NSAB validity.

First, we conducted an exploratory factor analysis (EFA) of the performance rating data. The scree plot shown in Figure A-1 indicates a very strong first factor. Therefore, the ratings were essentially unidimensional. In addition, a confirmatory factor analysis (CFA) also indicated that a single factor model fit the data well (Root Mean Square Error of Approximation = .08; Comparative Fit Index = .98; Standardized Root Mean Square Residual = .05). The factor loadings from this CFA model are shown in Table A-8. Based on these results, we averaged the 15 performance ratings into a single variable and examined the validity of the NSAB scales for predicting this performance rating composite. Table A-7 shows the correlations between the various performance rating scales and the performance ratings composite.

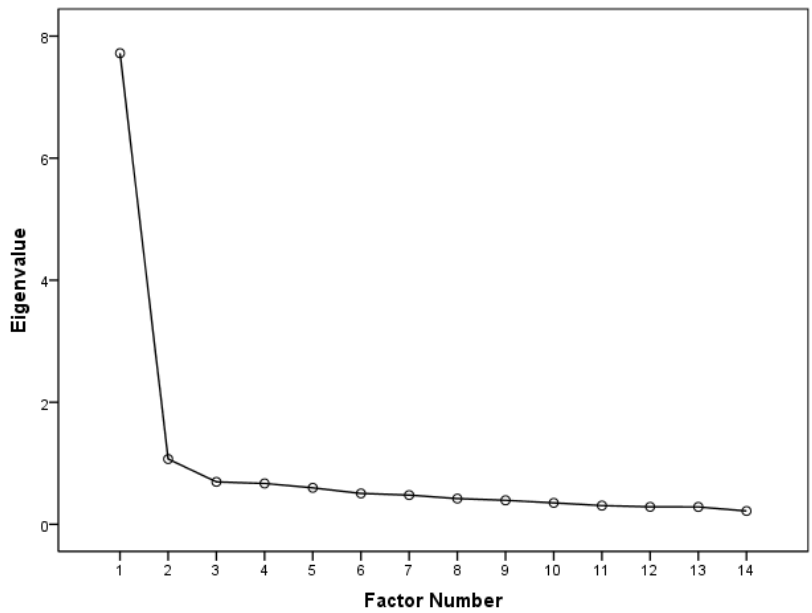

Figure A-1. **Scree Plot of the NCO Performance Rating Scales.**

Table A-8. ***Factor Loadings from the Single Factor CFA Model of the NCO Performance Rating Scales***

NCO Performance Rating Scale	Overall Performance
MOS Knowledge and Skill	.71
Common Task Knowledge and Skill	.77
Communication Skill	.67
Level of Effort and Initiative	.74
Adaptability	.68
Self-Management and Self- Directed Learning Skill	.75
Acting as a Role Model	.73
Relating to and Supporting Peers	.73
Cultural Tolerance	.39
Leadership Skills	.80
Concern for Soldier Quality of Life	.66
Training Others	.82
Problem-Solving/Decision-Making Skill	.79
Information Management	.73
Senior NCO Potential	.80

NCO Army Life Questionnaire – Descriptives

Each NCO also completed the ALQ which consisted of items measuring NCO attitudes and experiences in the Army. Frequencies for several performance-related items are presented in Table A-9, and the means, standard deviations, and correlations between the ALQ scales are provided in Table A-10.

Table A-9. *Army Life Questionnaire (ALQ) Performance-related Item Frequencies*

Variable	*N*	%
Received Accelerated Training Advancement	60	19.4
Received Accelerated Promotion	151	46.7
Received Accelerated Position	169	52.3
Completed Warrior Leader Course	210	64.0
Current Weapon Qualification:		
Unqualified	1	0.3
Marksman	56	17.0
Sharpshooter	100	30.4
Expert	172	52.3

Table A-10. ***Means, Standard Deviations, and Correlations Between the ALQ Scales***

	1	2	3	4	5	6	7	8	9	10	11
Scales											
1. APFT Score	-										
2. Promotion Point Total*	-.04	-									
3. Army Fit	.17	-.04	-								
4. Turnover Intentions	-.05	.08	-.56	-							
5. Affective Commitment	.09	-.01	.76	-.48	-						
6. Reenlistment Intentions	.13	.12	.46	-.29	.43	-					
7. Career Intentions	.05	.10	.49	-.37	.48	.78	-				
8. MOS Fit	.13	-.06	.26	-.18	.21	.03	.08	-			
9. Satisfaction with MOS	.10	-.03	.47	-.36	.44	.18	.26	.62	-		
Composites											
10. Army Commitment	.12	.05	.78	-.64	.76	.82	.86	.17	.40	-	
11. MOS Fit	.13	-.05	.40	-.30	.36	.11	.18	.91	.89	.31	-
Mean	258.84	604.73	3.75	1.82	3.39	3.07	2.87	2.98	3.27	17.25	6.25
Standard Deviation	34.10	162.14	.75	.83	.87	1.18	1.38	1.01	.91	3.92	1.73

Note. Bold values are significant at the .05 level. Sample sizes for these correlations range from 140 to 333; *Promotion Point Total was computed using the 2010 Promotion Point Worksheet system.

NCO Army Life Questionnaire – Factor Analyses

Factor analyses were also performed on the ALQ scales. However, a distinction was made between the attitudinal scales and the performance-related scales on the ALQ. For example, because of their importance for the Army and their conceptual differences from the other ALQ scales, Army Physical Fitness Test (APFT) scores and promotion points were evaluated separately from the rest of the ALQ scales. Table A-10 shows that these scales were not highly correlated with the other ALQ scales, suggesting that treating these scales separately was appropriate. Consequently, the factor analyses were only conducted on the ALQ scales assessing Army fit, turnover intentions, affective commitment, reenlistment intentions, career intentions, MOS fit, and MOS satisfaction.

The scree plot for these scales is illustrated in Figure A-2. As shown, these scales were not unidimensional. In fact, the scree plot suggested that a two-factor model would fit the data better. Therefore, we conducted a two-factor CFA on the ALQ scales with Army fit, turnover intentions, affective commitment, reenlistment intentions, and career intentions loading on the first factor and MOS fit and MOS satisfaction loading on the second factor. In addition, because of their similar content, the error terms for the career intentions and reenlistment intentions scales were allowed to correlate. The factor loadings from this model are provided in Table A-11. We labeled the two factors in the CFA model Army Commitment and MOS Fit and the resulting model fit the data well (Root Mean Squared Error of Approximation = .03; Comparative Fit Index = 1.00; Standardized Root Mean Squared Residual = .03). Table A-10 provides the means, standard deviations, and correlations between these broad ALQ factors and the original ALQ scales. Given the factor analytic results, we examined relationships among the NSAB scales, the performance rating composite, Army Commitment, MOS Fit, and APFT scores.

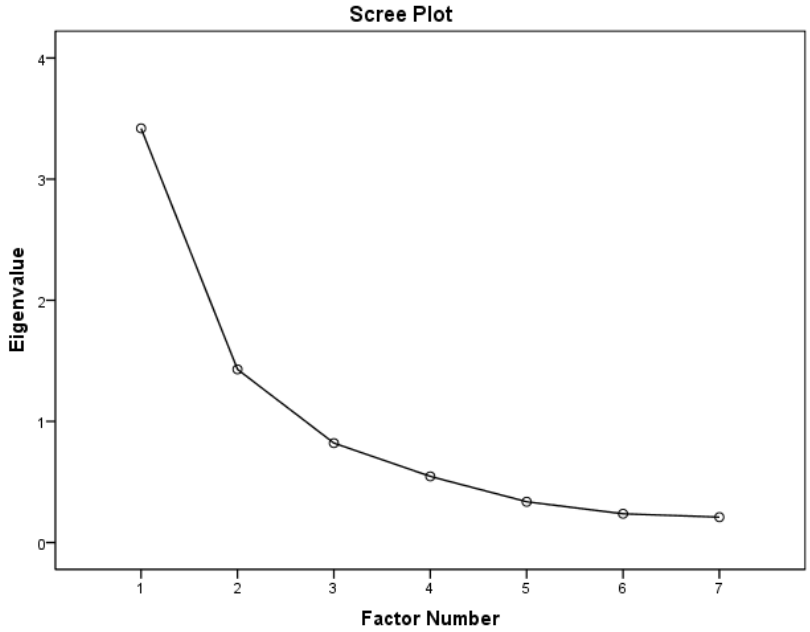

***Figure A-2*. Scree Plot of the NCO ALQ Attitudinal Scales.**

Table A-11. ***Completely Standardized Factor Loadings from the 2-Factor CFA Model of the ALQ Scales in the NCO Sample***

	ALQ Army Commitment	ALQ MOS Fit
ALQ Army Fit	.91	
ALQ Turnover Intentions	-.61	
ALQ Affective Commitment	.84	
ALQ Reenlistment Intentions	.50	
ALQ Career Intentions	.55	
ALQ MOS Fit		.56
ALQ Satisfaction with MOS		1.10

NSAB Validity Analyses: NCO Sample

Table A-12 shows the correlations of the NSAB Scales with the performance rating composite and the ALQ criteria. For comparison, correlations with the WAI Recruiter Selection Composite are also included. As shown, a number of NSAB facets were significantly related to the criteria. For example, the NSAB Achievement scale was correlated with Army Commitment and APFT scores (r = .22 and r =.18, respectively).The NSAB Physical Conditioning scale was highly correlated, r = .27, with APFT scores. In addition, a number of the NSAB-criterion correlations were larger than the correlations involving the current composite. In particular, the current composite was not a strong correlate of Army Commitment (r = .05). However, several NSAB scales (e.g., Achievement, Physical Conditioning, Non-Delinquency, and Optimism) were significant correlates of this criterion. Therefore, it appears that the NSAB captures content that is similar to and may likely improve upon, the WAI.

In addition, Table A-13 shows the standardized regression weights from the regressions of the ALQ criteria and the performance rating composite onto the NSAB scales. Because of the small sample size, we used a one-tailed significance test to identify predictors. Results showed significant predictive validity for the NSAB scales. The strongest relationships were with the Army Commitment and MOS Fit variables. For these criteria, the multiple R's were .41 and .37 and several NSAB scales were significant predictors. In addition, the multiple R for APFT scores was .35, indicating that this criterion was also predicted well by the NSAB. In contrast, the performance rating composite was not predicted well by the NSAB scales. Specifically, only the Achievement scale was significantly related to this criterion and Table A-12 indicates that the WAI Recruiter Selection Composite was also uncorrelated with these ratings. Thus, the performance ratings are not related to the WAI or the NSAB. There were several limitations that may have attenuated these relationships. First, only one supervisor provided performance ratings for each NCO, reducing the reliability of the ratings. Second, rater training was not provided for several of the NCO data collections. Finally, the performance ratings may be confounded with differences across MOS and, in order to predict performance, it may be necessary to standardize the rating within occupations. Unfortunately, the sample sizes for most specialties were too small

to standardize within MOS. The reason for the lack of significant correlations with the performance ratings is unclear and is likely due to a number of factors.

Table A-12. ***Correlations Between the NSAB Scales and Each NCO Criterion***

	APFT Scores	Army Commitment	MOS Fit	Performance Rating Composite
WAI Recruiter Selection Composite	.14	.05	.14	.02
Cooperation	-.01	-.02	-.01	-.07
Dominance	.16	.14	.09	.08
Even-Tempered	-.03	.02	-.02	.02
Attention-Seeking	.08	-.10	-.01	-.05
Selflessness	-.05	.04	.06	-.02
Achievement	.18	.22	.16	.12
Ingenuity	.04	.02	.09	-.04
Intellectual Efficiency	.05	.00	-.05	.04
Adjustment	.02	-.11	.14	.05
Order	.05	.03	.03	-.01
Physical Conditioning	.27	.18	.15	.06
Responsibility	-.07	.13	.03	.04
Self-Control	.03	.13	.01	.06
Sociability	.06	-.01	-.02	.00
Tolerance	.09	.05	-.08	-.04
Non-Delinquency	-.03	.18	.12	.00
Consideration	-.05	-.05	.02	-.08
Optimism	.10	.19	.17	.08

Note. Bold values are significant at the .05 level. The sample sizes for these correlations range from 294 to 330.

Table A-13. ***Standardized Regression Weights for the NSAB Scales that were Significant Predictors of Each NCO Criterion***

	APFT Scores	Army Commitment	MOS Fit	Performance Rating Composite
Cooperation				
Dominance	.13**			
Even-Tempered				
Attention-Seeking		-.10*		
Selflessness			.10*	
Achievement		.16**	.15**	.12*
Ingenuity				
Intellectual Efficiency				
Adjustment		-.13**	.14**	
Order				
Physical Conditioning	.22**		.11*	
Responsibility	-.16**			
Self-Control				
Sociability				
Tolerance	.10*		-.15**	
Non-Delinquency		.17**	.15**	
Consideration				
Optimism		.18**	.14**	
Multiple R	.35**	.41**	.37**	.21**
Adjusted R	.27**	.35**	.30**	.00

Note. N = 309-332; *$p < .10$; **$p < .05$.

APPENDIX B. RECRUITING PILOT TEST

Recruiting Pilot Test

Below we describe the participants and data collection procedures for the pilot test at the Army Recruiting Course, followed by the pilot test results.

Recruiting Student Data Collection

Recruiting Student Participants

We collected predictor (NSAB) data from 1020 ARC students from May through October 2011. The majority of the participants were E-5s (48.8%) and E-6s (44.5%).

Data Collection Procedures - Recruiting Student Sample

The NSAB was collected in proctored testing sessions during the first week of the ARC. Students accessed the web-based NSAB through the U.S. Army Accessions Command Enterprise Portal and USAREC's Headquarters Support System Army Recruiting Course Assignment & Sponsorship (ARCAS) System. Students completed the NSAB in approximately 30 minutes.

NSAB Results – Recruiting Student Sample

Table B-1 provides the descriptive statistics for the NSAB scales and Table B-2 provides the correlations between these scales. Prior to running all analyses, the NSAB data were screened for unmotivated responders. Respondents were flagged as potentially unmotivated if their observed response patterns contained an unusually low/high number of Statement 1/Statement 2 selections (e.g., they tend to select the first or second statements in the item pairs that are administered), or their item/test response latencies were unusually fast (e.g., responding to items in less than 1 or 2 seconds).

Table B-1. ***Descriptive Statistics for the NSAB Scales in the Student Sample***

	N	*Mean*	*Standard Deviation*	*Min.*	*Max*
Cooperation	928	-.04	.41	-1.71	1.65
Dominance	928	.23	.52	-1.60	2.87
Even-Tempered	928	.13	.53	-1.60	1.80
Attention-Seeking	928	-.25	.54	-1.84	2.12
Selflessness	928	-.11	.45	-1.43	1.83
Achievement	928	.37	.61	-1.67	2.01
Ingenuity	928	.09	.49	-1.71	1.92
Intellectual Efficiency	928	.17	.53	-1.75	1.75
Adjustment	928	.17	.58	-1.51	2.17
Order	928	-.18	.52	-1.86	1.79
Physical Conditioning	928	.18	.59	-1.75	2.08
Responsibility	928	.35	.44	-1.03	1.66
Self-Control	928	.09	.50	-1.55	1.59
Sociability	928	.16	.64	-1.73	2.04
Tolerance	928	-.03	.55	-1.82	1.75
Non-Delinquency	928	-.08	.52	-2.03	1.55
Consideration	928	.00	.51	-2.04	1.65
Optimism	928	.40	.50	-1.68	2.28

Table B-2. ***Correlations Between the NSAB Scales in the Student Sample***

NSAB Scales	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Cooperation	-																	
2. Dominance	.01	-																
3. Even-Tempered	.31	-.04	-															
4. Attention-Seeking	.07	.19	.02	-														
5. Selflessness	.20	-.01	.18	-.02	-													
6. Achievement	.06	.34	.02	.09	.17	-												
7. Ingenuity	-.01	.24	-.01	.13	.03	.19	-											
8. Intellectual Efficiency	.00	.31	.02	.06	-.03	.24	.34	-										
9. Adjustment	.08	.15	.17	.07	.02	-.03	.09	.17	-									
10. Order	-.07	.05	.00	-.05	.08	.22	.04	.07	-.05	-								
11. Physical Conditioning	-.05	.16	-.02	.13	-.04	.15	.07	.10	.04	.08	-							
12. Responsibility	.13	.18	.07	-.01	.14	.30	.08	.11	.02	.13	-.04	-						
13. Self-Control	.08	.09	.17	-.11	.13	.23	.03	.14	.06	.20	-.03	.14	-					
14. Sociability	.27	.25	.20	.37	.15	.16	.16	.09	.14	.00	.10	.08	-.02	-				
15. Tolerance	.19	.03	.20	.07	.32	.16	.09	.04	.00	.02	-.02	.10	.11	.24	-			
16. Non-Delinquency	.10	.05	.14	-.07	.18	.16	-.07	.00	.00	.10	-.02	.13	.19	.05	.08	-		
17. Consideration	.24	.05	.21	.08	.21	.10	.12	.06	.02	.04	-.04	.11	.11	.28	.18	.10	-	
18. Optimism	.16	.18	.23	.16	.11	.14	.06	.08	.26	-.01	.07	.09	.06	.29	.09	.04	.13	-

Note. Bold values are significant at the .05 level. The sample size for these correlations was 928.

Army Recruiter Performance Rating Scales

A. Locating And Contacting Qualified Prospects

How effective is each Recruiter in contacting large numbers of persons likely to join the Army; skillfully using available recruiting aids to gain the attention and interest of young people eligible for Army service; knowing where and when to prospect; persisting in prospecting and following up on leads?

Low	Moderately Low	Moderately High	High
Exerts little effort prospecting; for example, often fails to follow up on even promising leads, and uses recruiting tools (e.g., telephone, RWS) sparingly and ineffectively.	**Exerts effort prospecting, but may use a limited number of recruiting tools and may not spend enough time with or direct sufficient effort toward the most productive sources and prospects.**	**Uses a number of sources and recruiting tools for prospecting and is effective at locating and contacting qualified prospects.**	**Displays exceptional ingenuity and energy and uses a wide variety of recruiting tools very effectively to locate and contact qualified prospects.**
❶ ❷	❸ ❹ ❺	❻ ❼ ❽	❾ ❿

B. Gaining And Maintaining Rapport

How effective is each Recruiter in being hospitable to prospects and influencers; establishing rapport with and gaining the trust, and respect of prospects and influencers; adjusting to applicants' styles and acting appropriately with different types of applicants and influencers?

Low	Moderately Low	Moderately High	High
Is very poor at gaining and maintaining rapport; appears disinterested in applicants or may answer questions in an impersonal way.	**Has trouble interacting with certain prospects; sometimes appears disinterested in a prospect or may have a standard approach to interacting that is inappropriate for some prospects.**	**Is typically able to put prospects at ease, and maintains good rapport with them; interacts with most prospects in a warm and friendly way.**	**Interacts very effectively with all types of prospects; is excellent at gaining and maintaining rapport and establishing trust with prospects.**
❶ ❷	❸ ❹ ❺	❻ ❼ ❽	❾ ❿

C. Obtaining Information From And About Prospects And Making Good Person-Army Fits

How effective is each Recruiter in demonstrating good listening and interviewing skills; making accurate judgments and suggesting options to match prospects' needs and preferences; effectively obtaining information about prospects from other sources (e.g., high school principal, parents) to assess their qualifications and needs?

Low	Moderately Low	Moderately High	High
Is very poor at getting prospects to reveal their goals and passions, making it difficult to suggest appropriate Army opportunities; may misinterpret prospect's interests and suggest features or programs that clearly don't interest prospect.	Sometimes fails to learn enough about prospects to identify their primary goals and passions; may suggest Army features and benefits that do not result in a good match with the individual's goals, interests or needs.	Is good at blueprinting most prospects, evaluating their goals, interests, and passions, and then discussing Army opportunities appropriate for meeting those needs.	Always blueprints effectively, identifying prospects' goals, interests, and career motivations and then is excellent at emphasizing Army features and opportunities that address these needs and motives.

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D. Counseling/Mentoring Skills

How effective is each Recruiter in skillfully persuading prospects to join the Army; selecting and adapting counseling techniques appropriate to different prospects, effectively presenting Army benefits and opportunities; identifying and overcoming obstacles to joining the Army; persisting to engender commitment?

Low	Moderately Low	Moderately High	High
Fails to present Army features/ benefits to influence individual prospects, and is frequently unable to identify or overcome obstacles to joining the Army; often misses opportunities to engender commitment even when it's clearly appropriate to do so.	Presents Army features and benefits in a way that is sometimes not suitable for an individual prospect and may not identify obstacles preventing prospects from joining the Army; at times, misses opportunities to engender commitment.	Presents Army features/ benefits so that most prospects become more interested in the Army; recognizes and is prepared to overcome frequently encountered obstacles to joining the Army; knows when and how to engender commitment in most situations.	Presents Army life and benefits in a highly appropriate and convincing way for each prospect, and is very adept at identifying and overcoming any obstacles to joining the Army; rarely misses opportunities to engender commitment.
❶ ❷	❸ ❹ ❺	❻ ❼ ❽	❾ ❿

E. Future Soldier Training Program (FSTP)

How effective is each Recruiter in skillfully relaying accurate information about BCT, Army life, and the Army's expectations so that prospects/ recruits know what to expect; training Future Soldiers (FSs) to standards on pre-BCT tasks; following up and maintaining relationships with FSs and their influencers, effectively overcoming obstacles and concerns to ensure FSs maintain enlistment intentions?

Low	Moderately Low	Moderately High	High
Fails to maintain contact with FSs after they enlist; provides FSs with minimal or inaccurate information about Army life; rarely prepares them for BCT, and exerts little effort to counsel individuals who no longer wish to be in the Army.	Sporadically contacts FSs after mandatory follow-up; may miss signs of concerns or apathy; spends little time training FSs to standard on pre-BCT tasks, and may provide incomplete information about Army life.	Follows up with FSs and their influencers as needed; responds to concerns in a sensitive manner; works to train FSs to standard and accurately describes Army expectations and BCT to prepare them for Army life.	Maintains contact with and provides emotional support to all FSs and their influencers; thoroughly prepares FSs for BCT and Army life by training them to standard and providing complete, detailed information about Army life and expectations.
❶ ❷	❸ ❹ ❺	❻ ❼ ❽	❾ ❿

F. Establishing And Maintaining Good Relationships In The Community

How effective is each Recruiter in contacting and working effectively with individuals and agencies capable of helping with prospects; presenting a good image and building a good reputation for the Army by developing positive relationships with persons in the community; presenting a good Army image through appearance, language, and demeanor?

Low	Moderately Low	Moderately High	High
Avoids personal contact or alienates individuals in the community by making demands or failing to honor commitments; presents negative image of the Army by poor personal appearance or behavior.	Does not make regular contact with community agencies that might be helpful in recruiting, and does not develop relationships fully; is not particularly alert to opportunities to promote the Army.	Spends productive time with individuals/ agencies, maintaining a good image, and keeping them informed of most Army activities; may arrange Army activities for community persons who can help in recruiting.	Is exceptionally alert to and adept at developing relationships with relevant individuals and community agencies, and promotes a strongly positive image of the Army; may volunteer off-duty time to help in the community.
❶ ❷	❸ ❹ ❺	❻ ❼ ❽	❾ ❿

G. Organizing Skills/Processing Skills/Time Management

How effective is each Recruiter in planning ahead; organizing time efficiently; completing paperwork accurately and on time; keeping track of appointments; knowing how to locate and interpret important reference materials (e.g. qualifications, regulations, standards); ensuring that recruits are processed by quickly and efficiently getting them to the MEPS and into the Army?

Low	Moderately Low	Moderately High	High
Consistently fails to complete necessary forms; or may use wrong forms; organizes time poorly and does not maintain Recruiter Zone; fails to locate or use reference materials.	Sometimes completes paperwork late, occasionally, with significant errors; is somewhat inefficient in use of time and may at times schedule appointments without considering other events; may misinterpret reference materials.	Usually completes paperwork on time and with few errors; keeps Recruiter Zone up-to-date; and generally uses time efficiently; typically utilizes reference materials correctly.	Accurately completes all paperwork, prior to or as scheduled; devises plans so as to achieve own and station goals; maintains up-to-date and accurate Recruiter Zone and schedules work activities very efficiently and effectively; consistently locates and utilizes reference materials accurately.
❶ ❷	❸ ❹	❺ ❻	❼ ❽ ❾ ❿

H. Supporting Other Recruiters And USAREC

How effective is each Recruiter in coordinating activities with and supporting other recruiters to maximize the productivity of the station and battalion; complying with and supporting orders and directives from higher levels; mentoring or providing helpful tips and constructive feedback to other Army recruiters, especially if they are new?

Low	Moderately Low	Moderately High	High
Rarely cooperates with, supports, or helps other recruiters, even if requested, and lets others carry the recruiting load; may interfere with the group effort by withholding important information or not coordinating own activities with others.	May assist other recruiters when specifically asked but does not look for opportunities to help or support others; often complains about mission, or having to work extra time.	Supports the Command in ways that are helpful; usually places station/ battalion mission above personal goals, and generally cooperates and works well with fellow recruiters.	Is always enthusiastic and works to build group spirit; consistently helps other recruiters, even when he/ she is busy; always accurately shares information so as to increase group production.
❶ ❷	❸ ❹	❺ ❻	❼ ❽ ❾ ❿

I. Overall Effectiveness

How effectively does each Recruiter perform overall?

Low	Moderately Low	Moderately High	High
Performs below standards for recruiters.	Usually achieves and maintains the standards expected of a recruiter, but sometimes falls short on important areas of performance.	Consistently achieves and maintains the standards expected of a recruiter, and sometimes exceeds standards in some areas of performance.	Exceeds standards and expectations for recruiters.
❶ ❷	❸ ❹ ❺	❻ ❼ ❽	❾ ❿

Recruiting Life Questionnaire

There are two sections in this survey. Please read the instructions in each section carefully before you begin.

Section One

Using the scale below, please indicate the extent to which you agree with the following statements.

Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree	Not applicable
A	**B**	**C**	**D**	**E**	**F**

Working Environment & Job Satisfaction

1. I am satisfied with recruiting duty.
2. I am proud to be a representative of the Army as a recruiter.
3. The stress in this recruiting job is high.
4. Recruiting duty is worse than I expected before I received my duty assignment.
5. I feel like I am part of the Army "family".
6. I am pressured to continue recruiting even after the station meets the monthly mission.
7. I enjoy being a recruiter.
8. Being a recruiter is a big part of who I am.
9. I have recruited less than two prospects into the Army.
10. I often feel burned out at work.
11. I feel a strong sense of belonging to the Army.
12. Recruiting is a good match for me.
13. I feel a sense of accomplishment when I enlist a recruit.
14. I enjoy the constant pressure to recruit.
15. Being a recruiter has a great deal of personal meaning to me.
16. I have the necessary abilities to succeed in recruiting.
17. The Army has a great deal of personal meaning to me.
18. The workload in recruiting is exhausting.

Personal & Professional Development

19. The training I received in the Army Recruiter Course was helpful and relevant for my job as a recruiter.
20. I have NOT attended any NCOES schools (e.g., Warrior Leader Course).
21. I have access to training opportunities that will help improve my recruiting skills.
22. Working as a recruiter helps me achieve my long term career goals.
23. My time in recruiting will increase my chances for promotion.
24. As a recruiter I have learned new skills that will make me a better NCO.
25. I have time to engage in activities that enrich me personally.

Section Two

The following items are general questions about your experiences as a recruiter. Please click next to the statement that best describes your response to each question.

26. If you volunteered for recruiting, what were your reasons for becoming a recruiter? (check all that apply)
    a) N/A, I did not volunteer for recruiting duty
    b) I was able to choose the location of my duty station
    c) I wanted a change from my military specialty / occupation
    d) Recruiting duty is career enhancing
    e) Recruiting duty is necessary for promotion
    f) I believe in my Service and want to share it with others
    g) I want to help young people
    h) I was ready for a challenge
    i) I had no choice
    j) I wanted a change from being deployed
    k) Other: _____

27. On average, what are the total number of hours per day you spend performing recruiting-related duties, not including PT?
    a) 5 or fewer hours
    b) 6-7 hours
    c) 8-9 hours
    d) 10-11 hours
    e) 12 or more hours

28. Compared to other Army recruiters in your Company, would you say you are:
    a) One of the best (exceed 95 percentile)
    b) Better than most (66 to 95 percentile)
    c) Average (35 to 65 percentile)
    d) Below average (below 35 percentile)

29. I have been assigned to recruiting duty for <u>less than</u> 2 months.
    a) Yes
    b) No

30. Do you plan to reclassify your MOS to 79R?
    a) Yes
    b) No
    c) Undecided
    d) Already have reclassified

31. If you had the freedom to select an assignment next month, which of the following would you choose?
    a) Remain in recruiting
    b) Return to my previous military specialty/occupation
    c) Select a totally new military specialty/occupation
    d) Leave the Service

APPENDIX E. EXPERIENCED RECRUITER DEMOGRAPHICS

Table E-1. ***Recruiter Gender, Ethnicity, and Marital Status***

	N	*%*
Gender		
Male	796	94.0
Female	51	6.0
Missing	7	---
Total	854	100
Hispanic Declaration		
Yes	717	84.7
No	130	15.3
Missing	7	---
Total	854	100
Race		
American Indian or Alaska Native	9	1.1
Asian	17	2.0
African-American	160	18.9
Native Hawaiian/Pacific Islander	7	0.8
White	632	74.7
More than 2 selected	21	2.5
Missing	8	---
Total	854	100
Marital Status		
Married	633	74.3
Separated	22	2.6
Divorced	106	12.4
Widowed	1	0.1
Never Married	90	10.6
Missing	2	---
Total	854	100

Table E-2. *Recruiter Grade, Component, and Education*

	N	*%*
Grade		
E5	210	25.0
E6	493	58.8
E7	134	16.0
E8	2	0.2
Missing	15	---
Total	854	100
Component		
Regular Army	843	98.9
Army National Guard or Reserve	9	1.1
Missing	2	---
Total	854	100
Education		
Less than 12 years of school	1	0.1
High School Certificate or GED	28	3.3
High School Diploma	86	10.1
Some college, but did not graduate	518	60.9
Associate's Degree	150	17.6
Bachelor's Degree	54	6.3
Some Graduate School	9	1.1
Graduate Degree	5	0.6
Missing	3	---
Total	854	100

Table E-3. *Recruiter Age and Tenure (All in Years)*

	M	*SD*
Age	31.71	4.91
Time in Service	11.26	3.77
Time in Grade	3.34	2.06
Time in Recruiting	2.34	.56
Time in Recruiting Station	2.26	.55

APPENDIX F. RECRUITER SUPERVISOR AND PEER RATER DEMOGRAPHICS

Table F-1. ***Rater Gender, Ethnicity, and Marital Status***

	N	*%*
Gender		
Male	593	94.1
Female	37	5.9
Missing	257	---
Total	887	100
Hispanic Declaration		
Yes	142	16.1
No	740	83.9
Missing	5	---
Total	887	100
Race		
American Indian or Alaska Native	15	1.7
Asian	16	1.9
African-American	136	15.8
Native Hawaiian/Pacific Islander	10	1.2
White	686	79.4
Missing	24	---
Total	887	100
Marital Status		
Married	691	77.9
Separated	29	3.3
Divorced	102	11.5
Widowed	3	0.3
Never Married	62	7.0
Missing	0	---
Total	887	100

Table F-2. ***Rater Education***

	N	*%*
Less than 12 years of school	1	0.0
High School Certificate or GED	12	1.4
High School Diploma	79	8.9
Some college, but did not graduate	487	54.9
Associate's Degree	155	17.5
Bachelor's Degree	103	11.6
Some Graduate School	36	4.1
Graduate Degree	14	1.6
Missing	0	---
Total	887	100

Table F-3. *Rater Grade*

	N	*%*
E5	115	13.1
E6	346	39.4
E7	355	40.4
E8	62	7.1
E9	1	0.0
Missing	8	---
Total	887	100

Table F-4. *Rater Role/Position*

	N	*%*
Recruiter	561	63.3
Station Commander	215	24.2
Other	111	12.5
Missing	0	---
Total	887	100

Table F-5. *Rater Time in Grade and Service*

	M	*SD*
Time in Grade (In Years)	3.54	2.28
Time in Service (In Years)	13.78	5.17