An Exploratory Study of the U. S. Army Reserve Officers' Training Corps' Accessions Process

by

Jon K. Segars

A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama
August 2, 2014

Keywords: Army ROTC, accessions, leadership

Approved by

James E. Witte, Chair, Professor of Educational Foundations,
Leadership and Technology
Maria Martinez Witte, Associate Professor of Educational Foundations,
Leadership and Technology
David Diramio, Associate Professor of Educational Foundations,
Leadership and Technology
Margaret E. Ross, Alumni Professor of Educational Foundations,
Leadership and Technology

Abstract

The issue of assessing cadet leadership potential is a constant concern of the U.S. Army's leaders and has been since the ratification of the National Defense Act in 1916. According to the U.S. Army Cadet Command, the central headquarters for all ROTC activities, Army ROTC has a total of 273 host programs with more than 1,100 partnership and affiliate schools across the United States and Puerto Rico. ROTC is one of four pathways to earn a commission in the Army and produces approximately 60 percent of the second lieutenants who join the Army.

This study explored the U.S. Army ROTC accessions process and the validity of the accessions scoring system. Army ROTC cadets are evaluated through the accessions process; a system designed to determine leadership potential both on campus and during the Leader Development and Assessment Course (LDAC). The scoring results of the accessions process are used to select newly commissioned officers in a component (active duty, Army National Guard or Army Reserve) and to assign an area of specialty or branch.

The results of this study indicated that the accessions process is a valid measure of the leadership potential of Army ROTC cadets when comparing cumulative grade point average, leadership scores and physical fitness scores to the final accessions score. This study demonstrated that the component measurements all had a statistical significant relationship with the final accessions score. In particular, leadership scores had the strongest relationship the final accessions score in both the weighted and un-weighted analyses.

Acknowledgements

I would like to thank my doctoral committee; Dr. James Witte, Dr. Maria Witte, Dr. David Diramio, and Dr. Margaret Ross for your wisdom, counsel and patience as I slowly worked through this process. Your support and commitment to my education set clear examples of the professionalism found in no other business, and I am truly grateful for the opportunity you provided me.

I would also like to thank my family. To my parents, Don and Nancy, thanks for making learning an important part of my life. To my wife Joy and my daughter Mary Grace, I appreciate your encouragement and love despite the many hours we missed together. This degree is certainly more of a family effort than an individual achievement.

Table of Contents

List of Tables

Chapter 1

Introduction

In 1916, the National Defense Act formally established the Reserve Officers' Training Corps (ROTC) to train and prepare high school and college students for Army service. ROTC is one of the four pathways to earn a commission in the Army and leverages the potential military talent in our Nation's colleges and universities. Within ROTC, there are three different types of programs leading to a commission in the Army; military junior colleges, four-year colleges and universities, and senior military colleges. The other three pathways to earn a commission in the Army are Officer Candidate School (OCS), the U.S. Military Academy (USMA) at West Point and the direct commission process (Stewart, 2005). According to the U.S. Army Cadet Command, the central headquarters for all ROTC activities, Army ROTC has a total of 273 host programs with more than 1,100 partnership and affiliate schools across the country. Army ROTC produces approximately 60 percent of the second lieutenants who serve the active Army, Army Reserve and Army National Guard, and more than 40 percent of current active duty Army general officers were commissioned through ROTC (U.S. Army Cadet Command, 2012).

Statement of the Problem

Army leaders continue to look for effective models for recruiting and retaining the best students for the ROTC program and assessing the leadership potential of those candidates desiring to join the Army officer ranks. The Army makes a substantial investment in each cadet but needs the relative assurance that these students can earn an academic degree, complete the

ROTC program and ultimately serve as effective leaders of soldiers and mangers of government assets in an ever changing global environment of conflict (Wardynski, Lyle & Colarusso 2009). Within the ROTC program, Army leaders use an evaluation system known as accessions to score and rank order each individual cadet in the ROTC program on leadership potential prior to commissioning. This system may not be a valid measurement to evaluate leadership potential in terms of the three components of the accessions process; academic achievement, leadership scores and physical fitness.

Conceptual /Theoretical Framework

As a global power, the United States government handles an array of strategic landscapes with a myriad of wide-ranging security situations. Current global economic conditions, diverse demographics, cultural pressures associated with globalization, and competition for limited resources, aggravate the uncertainty and volatility of the strategic environment. Within these conditions, American soldiers stand as our Nation's most visible and stable symbol of commitment in an era of unrelenting conflict (Army Posture Statement, 2010).

According to the Army regulation for training and education, a new strategy to train and grow agile leaders has emerged to handle the demands of persistent conflict. This strategy looks to create a more adaptive leader through increased cultural and language training, providing training support systems that deploy with soldiers, and using technology to build a seamless and continuous development model. The Army trains its leaders in three domains; in institutions, in operational assignments, and through self-development. While the three domain approach to training is not new to the Army, the leader development process has adapted to meet the needs of the post cold-war force. The leadership assessment process measures subordinates' leadership

values, attributes, skills, knowledge, and potential to lead soldiers. The assessment process provides the basis for continuous evaluation and development. For both the evaluation and development assessment processes, the individual's performance is rated against established criteria, which are understood by both the individual and supervisor conducting the assessment. The Army's leader development system is designed to develop character and competence in soldiers and Army civilians to achieve their full leadership potential (Army Regulation 350-1, 2007).

Under the Army's leader development concepts, the objective of the officer education system is to generate a corps of leaders who are competent in technical, tactical, and leadership skills and can apply knowledge and experience. They must know how the Army functions and be ready to maneuver in joint, interagency, intergovernmental, and multinational environments. They must exhibit confidence, integrity, critical judgment, and responsibility. Additionally, Army leaders must show they can operate in an environment of complication, ambiguity, and constant change. They must build efficient teams in the midst of organizational and technological advancement and adjust to and solve problems creatively. Pre-commissioning programs educate and prepare cadets, officer candidates, and warrant officer candidates and measure their readiness and potential for commissioning as second lieutenants. Furthermore, these programs set them up for progressive and lifelong development. The pre-commissioning sources share a common purpose that each graduate possess the character, leadership, integrity, and other traits crucial to a career of exemplary service (Army Regulation 350-1, 2007).

The U.S. Army Cadet Command was formed in April 1986 at Fort Monroe, Virginia and as of November 2011, operates from Fort Knox, Kentucky. Cadet Command is the largest officer-producing organization within the U.S. military, and the Army ROTC program has

commissioned more than half a million second lieutenants since its inception in 1916. The mission of the Army ROTC Program is to generate commissioned officers in the quality, quantity, and academic disciplines essential to reach Active Army and Reserve Component requirements as determined annually by the Chief of Staff of the Army. Additionally, the Army branch proponents review academic discipline requirements as needed. These requirements are the foundation for the ROTC academic discipline mission and branching process. The goal is to produce officers in academic disciplines that correlate with the specific needs of the Army by matching officers with branches (Army Regulation 145-1, 2011).

Within the Army officer structure, a branch is an area of specialty in which each officer receives advanced training following the basic officer training courses. The Army has 16 basic branches in which a newly commissioned officer can be assigned:

Adjutant General Corps
Air Defense Artillery
Armor
Aviation
Chemical Corps
Corps of Engineers
Field Artillery
Finance Corps
Infantry
Medical Service Corps
Military Intelligence
Military Police Corps
Ordnance Corps
Quartermaster Corps
Signal Corps
Transportation Corps

In addition to the 16 basic branches, officers with specialized fields of study or professional qualifications can earn commissions in the Chaplain Corps, Judge Advocate General Corps, or into the Army Medical Corps (AR 614-100, 2006).

Completing the ROTC program does not automatically earn a cadet a commission as an active duty officer. Cadets compete for active duty assignments unless the commission is earned through the U.S. Military Academy (USMA) or through one of the six ROTC senior military colleges, where active duty is a guarantee. Cadets commissioned through USMA are required to serve on active duty, and cadets completing the ROTC program at a senior military college are granted active duty commissions if they desire. The Army senior military colleges and universities are Norwich University in Northfield, Vermont; Texas A&M University in College Station, Texas; The Citadel in Charleston, South Carolina; University of North Georgia in Dahlonega, Georgia; Virginia Military Institute in Lexington, Virginia, and Virginia Polytechnic Institute and State University (Virginia Tech) in Blacksburg, Virginia (Army Regulation 145-1, 2011).

Those ROTC cadets not selected for active duty by the accessions process and not guaranteed active duty through a senior military college will commission into one of the two reserve component forces; the Army Reserves or National Guard. ROTC cadets may also elect to enter the reserve components rather than compete for an active duty commission, but that decision occurs prior to the release of the accessions results. The reserve component forces consist of the Army Reserve, governed by Title 10, U.S. Code and those forces in the Army National Guard under Title 32, U.S. Code. By law, the Army Reserves are part of the federal force and respond to directives from the Commander in Chief and Secretary of the Army. The Army National Guard forces are controlled by a state governor and can be used for federal missions only when mobilized (Army Regulation 145-1, 2011).

The Cadet Command mission is to commission officers to meet the Army's leadership requirements; and provide a citizenship program in high schools that is designed to motivate

young people to be strong leaders and better citizens (U.S. Army Cadet Command, 2012). In executing this mission, Cadet Command is responsible for the two distinct levels of Army ROTC programs; Senior ROTC and Junior ROTC. Senior ROTC, found only on college or university campuses, satisfies the regulatory task to commission officers to meet Army requirements. Army Junior ROTC is a citizenship, motivational and leader development program found in more than 1600 high schools in the United States and on Department of Defense installations around the world. Junior ROTC is an elective course for 9th through 12th grade students and does not have a requirement to fill any manpower needs of the Army. Junior ROTC is not a prerequisite for Senior ROTC (Cadet Command Regulation 145-2, 2012). This study examined only Senior ROTC cadets under contract to enter the Army as officers.

Senior ROTC is conducted at three types of institutions; civilian colleges and universities, the six senior military colleges, and five military junior colleges. The Army military junior colleges are Georgia Military College in Milledgeville, Georgia; Marion Military Institute in Marion, Alabama; New Mexico Military Institute in Roswell, New Mexico; Valley Forge Military Academy in Wayne, Pennsylvania and Wentworth Military Academy in Lexington, Missouri. The military junior colleges administer the ROTC program through a two year, compressed commissioning process. At the end of the junior college commissioning process, the new officers transition to one of the senior ROTC programs to earn a bachelor's degree and complete the accessions process to receive a branch and initial duty assignment. Each type of institution follows the same accessions process, but each has a unique set of guidelines for administration of the program (Army Regulation 145-1, 2011). This study examined only cadets enrolled in Senior ROTC programs at civilian institutions and did not include cadets from the senior military colleges. This study did include cadets once part of military junior college

programs but completed accessions under an ROTC unit at a college or university with a four year program.

The Army Officer Education System (OES) is the progressive and sequential education and training process for officers that begins in the pre-commissioning phase and continues in schools through the basic entry level, advanced level, intermediate command and staff level, and senior level. The basic entry level course for cadets and officers is the Basic Officer Leader Course (BOLC). BOLC is a two-phased program of pre-commissioning and initial entry training which serves as the platform to develop junior officers, lieutenants and warrant officers, into leaders who are competent, confident, and who are grounded in field craft, proficient in branch skills, and capable of leading small units. Senior ROTC and OCS are also known as the Basic Officer Leadership Course, Phase I (BOLC I), while BOLC II occurs only after commissioning and before an officer receives specific branch training (Army Posture Statement, 2010). This study only examined the first phase, BOLC I, for Senior ROTC cadets. This study did not examine any phase of warrant officer education or training.

Purpose of the Study

The purpose of this study was to explore the U.S. Army ROTC accessions process and the validity of the accessions scoring system. Given the magnitude of responsibility placed on ROTC programs to source quality leaders, it is imperative that the Army does all it can to best evaluate future officers as the United States is faced with an increasingly number of violent adversaries requiring military action (Wardynski, et. al., 2009). The Army ROTC cadets in this study were evaluated through the cadet accessions process; a system is designed to evaluate leadership potential both on campus and during summer training at Fort Lewis, Washington. A

cadet's accessions score is the sum of three weighted components; cumulative GPA (40 percent), leadership scores (45 percent) and physical fitness (15 percent). The scoring results of the accessions process provide an ordinal ranking of all ROTC cadets in a year group. The results of the accessions process are used to select these future commissioned officers or active duty, the Army National Guard or the Army Reserve, assign an area of specialty or branch for active duty officers, and assign officers to a duty location. This process is also part of the selection criteria for advanced civilian schooling under the Army's education delay program for students with specialized degree fields such as pre-medical, nursing, theology and legal.

Research Questions

The following research questions were used in the study:

1. To what extent do the weighted cumulative GPA score and the final accessions score correlate?
2. To what extent do the un-weighted cumulative GPA score and the final accessions score correlate?
3. To what extent do the weighted leadership score and the final accessions score correlate?
4. To what extent do the un-weighted leadership score and the final accessions score correlate?
5. To what extent do the weighted physical score and the final accessions score correlate?
6. To what extent do the un-weighted physical score and the final accessions score correlate?
7. What is the relationship between age and the final accessions score?
8. What is the relationship between sex and the final accessions score?
9. What is the relationship between the RECONDO award and the final accessions score?
10. What is the relationship between the Platoon Top Five award and the final accessions score?

Limitations

This study examined only 39 of the 273 Senior ROTC programs and only one year group of cadets. Because of the differences in program administration, this study did not examine cadets from senior military colleges. This study also did not examine the accessions processes used at the U.S. Military Academy or Officer Candidate School.

The academic results based on cumulative GPA were not an equal measurement, since each of the 273 host programs and their satellite programs had varying degrees of academic rigor associated with the non-ROTC courses taken by each cadet. Also, there was no differentiation between the rigor associated with the many different academic disciplines even at the same college or university. While there were scoring considerations made for extracurricular activities, language skills and cultural awareness training and education, academic scores were not weighted based on discipline, institution or perceived rigor.

While there was standardization of scoring at the Leader Development and Course (LDAC), on-campus evaluations of cadets were subject to the training, judgment and experience of each unit's commanding officer. The subjective evaluation of the commanding officer accounted for 15.75 percent of a cadet's accessions score.

The resources available to each college or university program were not equal in terms of access to field training areas, classroom facilities, simulators and funding from other than Department of Defense sources. Some programs had additional access to military facilities due to proximity and historical relationships not afforded to all ROTC units. Some programs also had a more advantageous instructor to student ratio due to availability of contractors to fill vacancies in cadre positions or stability in the turnover rate of both contractors and Army instructors.

Definitions

These terms are used in this study and the definitions, unless otherwise stated, came from The Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-01, 2010, amended March 2012:

Accessions – The competitive process by which cadets receive component, branch, duty assignment and civil schooling in the final academic year of the Army ROTC program (Cadet Command Circular 601-11-1, 2011).

Active duty - Full-time duty in the active military service of the United States. This includes members of the Reserve Component serving on active duty or full-time training duty, but does not include full-time National Guard duty.

Army National Guard - The Army National Guard (ARNG) is one of the three components of The Army; active duty and reserves being the other two. The Army National Guard is composed primarily of civilians who serve their country, state and community on a part-time basis. The National Guard has a dual mission that consists of both Federal and State roles. For state missions, each state governor, through an adjutant general, commands Guard forces. The President of the United States can activate the National Guard for participation in federal missions (About the National Guard, 2011).

Branch - An arm or service within the Army; the 16 basic branches. Branches such as Special Forces and Civil Affairs are not part of the basic branches and not an option in the accessions process.

Cold War - the period from the end of World War II until the collapse of the Soviet Union (Sept. 2, 1945, to Dec. 26, 1991), highlighted by the global military rivalry and arms race between the United States and the former Soviet Union.

Department of Military Science – The Army headquarters on each college or university campus with a host senior ROTC program. Each department of military science is commanded by an army officer, the professor of military science, who serves as the unit's senior instructor (Army Regulation 145-1, 2011).

Direct Commission – A direct commission provides leaders in professional fields such as law, medicine and religion the opportunity to become an Army commissioned officer outside of the typical commissioning sources. Upon completion of their officer training program, they are commissioned at a rank determined by their career branch (Army Regulation 135-100, 1994).

Joint – activities, operations, organizations, etc. in which elements of two or more U.S. military departments participate.

Leader Development and Assessment Course (LDAC) – Also known as Operation Warrior Forge, LDAC is a 29 day course to train U.S. Army ROTC Cadets to Army standards, to develop their leadership skills, and to evaluate their officer potential. Most Army Cadets attend LDAC between their junior and senior undergraduate years after having contracted to join the Army. Successful completion of LDAC is a prerequisite to becoming an Army officer through ROTC (Cadet Command Circular 145-05, 2010).

Officer Candidate School - Officer Candidate School (OCS), Fort Benning, Georgia, provides a pathway to become an Army commissioned officer for those who have completed an undergraduate or graduate degree. Candidates without prior Army service will attend Basic Training and OCS, and candidates with prior Army service will attend only OCS, since their prior service included basic training (Army Regulation 350-51, 2001).

Pre-commissioning - Military education received at institutions and through programs producing commissioned officers and officers in the grade of warrant officer 1 upon graduation (Army Regulation 350-1, 2011).

Professor of Military Science – also known as the commanding officer of an ROTC unit, this officer is responsible for training and formally evaluating each cadet is his or her program for the purposes of accessions (Army Regulation 350-1, 2011).

RECONDO – an acronym that combines the words reconnaissance commando, and doughboy, (doughboy is an archaic slang descriptor of the American infantry soldiers). The Army's RECONDO School, started in the early stages of the U.S. military involvement in the Vietnam Conflict, became a three week intense training course designed to prepare the infantry and special operation leaders of small tactical units to conduct and teach long range reconnaissance and surveillance patrols (Westmoreland, 1976). As a shorter version of the Army's Ranger School, RECONDO was conducted in Vietnam beginning in 1966. This physically and mentally demanding course became the standard for elite light infantry tactics at the time and was the only military course that concluded with students leading an actual combat patrol (Rounsefell, 1968). Because of the moniker of excellence associated with RECONDO, Cadet Command adopted the term as a symbol of superior physical, technical and tactical accomplishment at LDAC.

U.S. Army Cadet Command – Subordinate headquarters of U.S. Training and Doctrine Command that is responsible for the administration of all Army's Senior ROTC and Junior ROTC programs (U.S. Army Cadet Command, 2012).

U.S. Army Reserve – USAR is one of three components in the Army, along with Active Duty and Army National Guard. The Army Reserve has more than 2,000 units in the United

States, Guam, the Virgin Islands, Puerto Rico and Germany, each one trained in a specialized skill and ready to support Army missions around the world. USAR provides necessary combat service support to combatant commanders where and when needed, thereby saving limited resources (US Army Reserve Posture Statement, 2011).

U.S. Military Academy - The United States Military Academy at West Point, NY, founded in 1802, is the oldest of the five service academies. The Academy has over 4000 cadets in the student body and commissions approximately 1000 lieutenants per year. Graduates of the Academy have a five year active duty service obligation. These cadets are not part of the ROTC Program (United States Military Academy Homepage, 2012).

Chapter 2

Literature Review

The purpose of this study was to explore the U.S. Army ROTC accessions process and the validity of the accessions scoring system. To achieve this purpose, this study explored the strength of each of the three component scores (academic program, leadership program, and physical scores) in evaluating the overall leadership potential of a cadet preparing to enter the Army as a commissioned officer.

Research Questions

The following research questions were used in the study:

1. To what extent do the weighted cumulative GPA score and the final accessions score correlate?
2. To what extent do the un-weighted cumulative GPA score and the final accessions score correlate?
3. To what extent do the weighted leadership score and the final accessions score correlate?
4. To what extent do the un-weighted leadership score and the final accessions score correlate?
5. To what extent do the weighted physical score and the final accessions score correlate?
6. To what extent do the un-weighted physical score and the final accessions score correlate?
7. What is the relationship between age and the final accessions score?
8. What is the relationship between sex and the final accessions score?
9. What is the relationship between the RECONDO award and the final accessions score?
10. What is the relationship between the Platoon Top Five award and the final accessions score?

Historically, Army leadership has been about first, mission accomplishment and second, taking care of soldiers. Ingrained in military doctrine, true leaders exhibit the character, skills and knowledge that motivate others to follow in the toughest of circumstances. Given an era fast-paced military contingency operations on all fronts, the call for officers to have enhanced skills, greater knowledge in certain areas, or a different intellectual orientation toward decision making, is required to maintain combat readiness. Therefore, it is critical that analysis is conduct on the development of junior Army leaders (Leonard, Polich, Peterson, Sortor, & Moore, 2006).

The leadership manual of the U.S. Army that applies to its members at all levels is the Army Doctrinal Reference Publication (ADRP) 6-22, Army Leadership. Directed by the Army Chief of Staff, this publication provides the framework and the specific methods for developing leaders. It applies to officers, to include officer candidates and cadets, enlisted soldiers and Army civilians (ADRP 6-22, 2012). This publication follows a series of constantly updated and expanded leadership references and replaced the Field Manual (FM) 6-22 published in 2006. ADRP 6-22 (2012) is a result of the most recent lessons learned on combat leadership and characterizes the ideal Army leader as having, "strong intellect, physical presence, professional competence, high moral character and serves as a role model" (p. v). The Army definition of a leader is "anyone who by virtue assumed role or assigned responsibility inspires and influences people to accomplish organizational goals," and leadership is "the process of providing purpose, direction and motivation to accomplish the mission" (FM 6-22, 2012, p. 1-1).

Field Manual 1, titled The Army, is the source document for the Army's operational concepts and fundamentals. This manual describes the meaning of being a professional soldier with emphasis on values and the standards expected of the service's members (FM 1, 2005). The tenants of FM 1 lead to the more detailed discussions found in the 6-22 leadership manuals, but

all simply explain the key factors in leadership as a principle called Be-Know-Do. That is to suggest that leaders have a set of character traits and values (Be), they have the mental capacity and training to lead others (Know) and take action (Do) based on who they are and a high level of training, education and experience (Leonard, 2006).

Leader Requirements

The Be-Know-Do paradigm was first published in the 1983 edition of FM 22-100 and stems from the Army's eleven principles of leadership (see Figure 1) that became part of Army leadership doctrine in 1951 (FM 22-100, 1983).

PRINCIPLES OF LEADERSHIP

Know yourself and seek self-improvement.
Be technically and tactically proficient.
Seek responsibility and take responsibility for your actions.
Make sound and timely decisions.
Set the example.
Know your soldiers and look out for their well-being.
Keep your subordinates informed.
Develop a sense of responsibility in your subordinates.
Ensure the task is understood, supervised, and accomplished.
Build the team.
Employ your unit in accordance with its capabilities.

Figure 1. The Army Principles of Leadership. Adapted from *Field Manual 22-100, Military Leadership*, 1983, p. 5.

FM 6-22 and ADRP 6-22, which replaced the FM 22-100 series of manuals, expanded these eleven principles to formulate the Leadership Requirements Model (see Figure 2). Figure 2 represents the model used by U.S Army Cadet Command during LDAC 2010 and the model

used to analyze the data presented in Chapter 4 of this study. ADRP 6-22 (2012) provides a more detailed version of this model but for this study, only the model found in FM 6-22 was used. Like the Be-Know-Do concept, the leadership requirements model's components center on what a leader is and what a leader does mentally and physically. Both FM 1 and the Army's leadership series manuals embrace the idea that personal character, presence, and intellect enable the leader to master the Army competencies through continuous learning and practice (FM 6-22, 2006).

Leadership Requirements Model

Attributes (What a leader is)	**Core Leader Competencies** (What a leader does)
A Leader of Character	Leads
Army Values	Leads other
Empathy	Extends influence beyond the chain of command
Warrior Ethos	Leads by example
	Communicates
A Leader with Presence	
Military bearing	Develops
Physically fit	Creates a positive environment
Composed, confident	Prepares self
Resilient	Develops others
A Leader with Intellectual Capacity	
Mental agility	Achieves
Sound judgment	Gets results
Innovation	
Interpersonal tact	
Domain knowledge	

Figure 2. The Army Leadership Requirements Model. Adapted from *Field Manual 6-22, Army Leadership,* 2006, p. 2-4.

The application of the each attribute and competency in the leadership requirements model empowers each leader to build sound and cohesive organizations able to effectively carry out the Army mission. To fully understand the leadership requirements model and how the

model was used to evaluate the potential in ROTC cadets, it is important to define the elements of each attribute and core leader competency. Under the heading of attributes, described as what an Army leader is (or the Be in Be-Know-Do), the model begins with character. A leader of character is further divided into three elements; the Army values, empathy, and the Warrior Ethos. Found in FM 600-100 (2007) and the leadership series references, the seven Army values are:

1. Loyalty – to bear true faith and allegiance to the U.S Constitution, the Army, the soldier's unit, and other soldiers. Loyalty extends beyond the Army to other military services and civilian agencies who are critical partners on the modern battlefield.
2. Duty – to fulfill soldier obligations beyond those required by law, regulations, and orders. Conscientious leaders have a duty to understand and fulfill their commander's intent for each mission.
3. Respect – to treat people as they should be treated and foster a climate where differences in culture add to the effectiveness of the unit.
4. Selfless-service – for a soldier to place the welfare of the nation, the Army, and subordinates first.
5. Honor – to live up to the Army values and demonstrate an understanding of what is right. A leader's personal conduct should model the Army values at all times.
6. Integrity – having the character to do what is right legally and morally in all situations.
7. Personal courage – to face fear, danger, or adversity with physical and moral courage.

These values also translate to organizations outside the military. For example, in a 2006 interview with Warren Buffett and Bill Gates, business students at the University of Nebraska asked the two billionaires what they expected from their subordinate managers. Both men responded with an expectation that the leaders in their corporations make decisions that build market share and generate profits. Each elaborated on the types of decisions that were critical to their businesses, but both agreed that the single most important thing their managers could do is to make ethical decisions to maintain the reputation of their companies (Geyer & Hall, 2006).

Apart from the Army values, empathy, the second element of character in the Leadership Requirements Model, is the ability to see something from another person's point of view, and to identify with another person's feelings and emotions. Empathy was added to the model as senior Army leaders recognized the need to anticipate what soldiers were experiencing and feeling to envision how decisions would affect them and their performance. The premise was that leaders with a strong tendency for empathy would be better prepared to understand both friendly forces and non-combatants on the modern battlefield (FM 6-22, 2006).

Over 10 years before the Army adopted empathy as an element in the leader requirements model, Goleman (1998) addressed empathy as the "most easily recognized" (p. 100) dimension of emotional intelligence. Goleman asserted that there are five components of emotional intelligence; self-awareness, self-regulation, motivation, empathy, and social skill. He stated that empathy is important and cites three reasons: the increased use and size of teams which is inherent in military units and applicable to any organization that employees people to solve problems and make decisions, the globalization which encompasses the cultural and ethnic differences that all large organizations face, and the need to retain talent through a strong leader development system. In his research, Goleman also concluded that emotional intelligence carries

more than twice the weight of IQ in accounting for excellence in work performance (Goleman, 1998).

The Model's final element of character is the Warrior Ethos, which is part of the Soldiers' Creed, (see Figure 3). The Warrior Ethos is the Army's service ethic common to all soldiers, with the expectation of selfless service to the Nation. The Soldiers' Creed was adapted from the Code of Conduct for U.S. Armed Forces, first published by President Eisenhower in 1955 by executive order and later amended by President Carter in 1977. The Soldier's Creed outlines the basic responsibilities and obligations of all service members to the United States (AR 600-100, 2007).

The Soldier's Creed

I am an American Soldier.
I am a warrior and a member of a team
I serve the people of the United States and live the Army Values.
I will always place the mission first. } *Warrior Ethos*
I will never accept defeat.
I will never quit.
I will never leave a fallen comrade.
I am disciplined, physically and mentally tough, trained and proficient in my warrior tasks and drills.
I will always maintain my arms, my equipment and myself.
I am an expert and I am a professional
I stand ready to deploy, engage, and destroy, the enemies of the United States of America in close combat.
I am a guardian of freedom and the American way of life.
I am an American Soldier.

Figure 3. The Soldier's Creed. Adapted from *Field Manual 6-22, Army Leadership*, 2006, p. 4-10.

In 2003, the Warrior Ethos became part of the Army's transformation led by then General Erik Shinseki, the 34th Chief of Staff of the Army. In a memorandum to the Army's senior officers outlining his strategic plan to place more emphasis on soldiers' understanding and living by the basic principles of duty, Shinseki (2000) highlighted the need to return to a simple warrior mindset regardless of a soldier's specialty within the service. The Warrior Ethos states, "I will always place the mission first, I will never accept defeat, I will never quit, I will never leave a fallen comrade" (FM 6-22, 2006, p. 4-10).

In the ROTC system, a cadet is expected to adhere to the values and ethics established for the Army soldiers. A cadet is required to articulate the seven Army values and to demonstrate these values during progress in the program. A cadet is also required to demonstrate ethical behavior and, although not subject to the Uniform Code of Military Justice, a cadet will recognize and apply the ethical decision making process during class case studies. While the Warrior Ethos directly applies to Army soldiers, its four basic principles serve as discussion points during cadet situational training exercises (Adaptive Leadership, 2008).

With character being the first element of the Leadership Requirements Model, the second leader attribute is presence. Leader presence is more than just the physical location of a leader but the energy that the leader transfers to subordinates through appearance and demonstrated emotions. Presence is the basis for all other leadership functions (Traversi, 2007).

The four elements of leader presence are military bearing, physical fitness, confidence and resiliency. Military bearing is the ability of a leader to project the image of professional authority. This image is most often evident in personal appearance but also includes fitness, courtesy, and the ability to be emotionally objective during decision making Physical fitness is to have the health, strength and endurance to handle stress. Most often, a leader's fitness is

evaluated by using the Army Physical Fitness Test, but is best evaluated during periods of prolonged stress. Physical fitness is assessed in every Army training course and serves as a prerequisite for graduation from any Army course or school. Confidence is to demonstrate composure, emotional control, and the faith that leader's place in their own abilities. Resiliency is the ability to quickly recover from physical and emotional adversity to continue to leader soldiers to mission accomplishment (FM 6-22, 2006).

The third leader attribute is intellectual capacity which consists of mental agility sound judgment, innovation, interpersonal tact and domain knowledge. Mental agility is the ability to anticipate, conceptualize, assess and improvise if necessary in uncertain situations. Military mental agility was popularized in a decision making process developed by U.S. Air Force Colonel John Boyd during the Korean War to compensate for the enemy pilot's superior planes. In the mid 1970's while serving as a flight instructor, Colonel Boyd described his tactical decision making cycle as the "OODA" Loop. O-O-D-A, which is the acronym for observe, orient, decide and act, was the reoccurring process Boyd used in training fighter pilots to out maneuver the enemy in air to air combat. This decision making cycle serves as the basis for the mental processes described in many post Vietnam era tactical manuals of the U.S. military (Coram, 2002).

Sound judgment requires having the mental agility and incorporates keen situational awareness to draw sound conclusions and act in accordance with sensible decisions even in the absence of all facts (LDP Handbook, 2009). In March, 2003, as U.S. and coalition forces prepared for an assault into Iraq, the Army's 3rd Infantry Division, with special operations forces and CIA operatives focused, on seizing the Highway 1 Bridge west of Nasiriyah. If intact, the bridge was vital to both the 3rd Division and the Marines in the planned rapid push to Baghdad.

The mission to seize the bridge was assigned to Colonel Dan Allyn, commander of the division's 3rd Brigade Combat Team, who spent most of his career serving with the Army's light infantry and Special Forces. Allyn selected Lieutenant Colonel J.R. Sanderson's armored task force to clear the highway leading to the bridge, to ensure the bridge could withstand armored vehicle traffic, and to position forces on the far side to enable follow-on forces to continue the advance. In Allyn's analysis, the intelligence picture was weak and not improving, so he needed his most experienced and best trained unit to clear the way at this critical point in the assault. Without additional intelligence from the CIA and Special Forces ahead of the attack, Sanderson's task force was able to reach the bridge, determine that it was suitable for armored vehicle traffic, and clear the far side of the bridge of enemy resistance. Colonel Allyn's sound judgment in the absence of facts proved to be instrumental in taking the bridge and enabling U.S. and coalition forces to move north along both sides of the Euphrates River (Gordon & Trainor, 2006).

Innovation is the ability to see alternatives and new ideas in light of unusual circumstances (FM 6-22, 2006). In the summer of 1863, during the U.S. Civil War, the 20th Regiment of Maine, under the command of Colonel Joshua Chamberlain, was thrust into battle to help stop the Confederate Army's advances near Gettysburg, Pennsylvania. Just two years before, Chamberlain had enlisted in the Army and, although he had no military experience, was commissioned a lieutenant colonel of infantry. Colonel Chamberlain's background was in education as a college professor, and he quickly studied the tactics of time as he was promoted and placed in charge of this regiment. As the battle for Gettysburg unfolded, Chamberlain's men were ordered to hold the southern end of the Union line. Within minutes of his unit occupying their positions, Chamberlain received reports that two regiments of Alabama soldiers were

attacking in an attempt to flank his outfit. Chamberlain quickly assembled his subordinate leaders and ordered part of his unit to conduct a maneuver that resembled a barn door swinging on its hinges to bring the regiment on a straight line and then transition to a full scale attack down the hill. The barn door technique was not a method found in the tactics books but one Chamberlain devised during the fight. While he had no combat experience Chamberlain's sound judgment and innovative idea enabled him to turn a critical and uncertain situation into a Union victory on the slopes of Little Round Top (Collins, 2009).

Interpersonal tact is the awareness of effective interactions with others. The Army leadership series manuals identify interpersonal tact with the ability to recognize diversity, exercise self control, leverage the emotional energy of soldiers, to remain emotionally balanced and demonstrate stability under pressure. Domain knowledge is technical and tactical expertise coupled with cultural, environmental and geopolitical understanding. Both interpersonal tact and domain knowledge require some level of experience and emotional intelligence which is not always easy to measure in junior leaders (FM 6-22, 2006).

In a study on the 20 characteristics of admired leaders in the United States, respondents in both 1987 and 1993 selected honesty, forward looking ability, inspirational, and competency as the top four characteristics to be most important. In comparison to the Leadership Requirements Model, these four characteristics align closely with the leader attributes; character, presence and intellectual capacity and with the core leader competency of leads. The remaining 16 characteristics in the study were; ambition, broadminded, caring, cooperative, courageous, dependable, determined, fair-minded, imaginative, independent, intelligent, loyal, mature, self-controlled, straightforward, and supportive. The researchers concluded that leadership is a

relationship that comes with an expectation of mutual trust where a leaders' credibility is constantly evaluated. (Kouzes & Posner, 1993).

Being an officer in the US Army means being a leader, a counselor, a strategist, and a motivator. Officers must lead other soldiers in all situations and adjust to environments that are always changing. The Army ROTC program is designed to develop confident, competent, and adaptive leaders with the basic military science and leadership foundation necessary not only to lead small units but also to mature and evolve into the Army's future senior leaders (Adaptive Leadership, 2008).

While the first half of the Leader Requirements Model addresses the attributes, the second half addresses the core leader competencies or what the leader does. Under the heading Core Leader Competencies, the model describes leader actions in terms of how they lead others, develops self plus others, and achieves results through planning and execution. The Core Leader Competencies Model, the things that leaders do, explains the nine abilities that Army leaders practice to ensure that they meet their full potential (see, Figure 4).

Core Leader Competencies

	Leads Others	Extends Influence Beyond the Chain of Command	Leads by Example	Communicates
Leads	Provide purpose, motivation, inspiration Enforce standards Balance mission and welfare of soldiers	Build trust outside lines of authority Understand sphere, means, and limits of influence Negotiate, build consensus, resolve conflict	Display character Lead with confidence in adverse conditions Demonstrate competence	Listen actively State goals for action Ensure shared understanding
	Creates a Positive Environment	Prepares Self	Develops Leaders	
Develops	Set the conditions for positive climate Build teamwork and cohesion Encourage initiative Demonstrate care for people	Be prepared for challenges Expand knowledge Maintain self awareness	Assess developmental needs Support professional and personal growth Help people learn Counsel, coach, and mentor	
	Gets Results			
Achieves	Provide direction, guidance, and priorities Develop and execute plans Accomplish tasks consistently			

Figure 4. Eight core leader competencies and supporting behaviors. Adapted from *Field Manual 6-22, Army Leadership*, 2006, p. 2-7.

The Army considers three core domains that shape the critical learning experiences of leaders' careers: institutional training in military and civilian schools; the training, education and job experience gained during operational assignments; and self-development. While these experiences occur over extended periods of time, the Army recognizes that junior leaders must reach an early level of job proficiency without the benefit of experience to operate in extreme

physical conditions and under tremendous stress. Increasing, the Army is asking its junior leaders to take on more responsibility and understand the global nature of the decisions made in a tactical environment. These leaders must be able to process information quickly and make decisions without perfect knowledge of the situation (Snider, 2005). The Army leverages leader development training and education early in a soldiers' career by introducing and using the leadership requirements model as a tool in development and assessment. Building competence in subordinates follows a systematic and gradual approach, from mastering individual competencies, to applying skills in collective training or in combat. Leading people by giving them a complex task helps them develop the confidence to take on progressively more difficult challenges. Within the three core learning domains; schools, operational assignments, and self-development, leaders develop others as the Army continuously hires and promotes from within. (FM 6-22, 2006).

The former Under Secretary of the Army and acting Secretary of the Army in 2004, the Honorable Les Brownlee, when referring to the Army's institutions of learning, stated that the Army must match success on the battlefield with "successful adaptation of the Army at home" (p. 8). Together with the Chief of Staff of the Army at the time, General Peter Schoomaker, Brownlee went on to say that the post 9/11 operating has changed to the point where the Army needed individuals ready and willing to serve in combat, those who embraced the elements of the Army values, and those with the education that allowed them to handle the uncertainties of modern conflict (Brownlee & Schoomaker, 2004).

Secretary Brownlee's assessment of the type of individuals needed by the Army has met some barriers that have reduced the pool of eligible soldiers to numbers that lead to more studies on the problem. Research shows that only about one in four Americans age 17-24 years old are

capable of qualifying for military service (Davis, 2011), and this low percentage of potentially qualified applicants can be traced to three primary reasons. The first reason is inadequate education in terms of no high school diploma or for those who graduate from high school, the inability to earn a satisfactory score on the Armed Forces Qualification Test (AFQT). The second reason is a criminal record with a felony or serious misdemeanor conviction. The third reason is a lack of physical fitness highlighted by obesity. Of those 17-24 year olds who do not qualify for military service, 27 percent are over the weight and body mass limits of the military, and 32 percent have health issues other than weight that disqualify them from service (Christeson, Taggart & Messner-Zidell, 2009). In prepared congressional testimony by Dr. Curtis Gilroy, the Director for Accessions Policy, Officer of the Undersecretary of Defense for Personnel and Readiness, further explained the low numbers of young people available for military service. He indicated that in addition to the American education and health crisis, specifically of the 17-24 year old population, research showed a reduction in the number of young people desiring to serve in the military and fewer influences like parents, teachers, coaches and counselors recommending military service (Gilroy, 2009).

Rather than research all levels of military manning, this study examined only a small portion of the total military force and the pool of those eligible to serve in the armed forces; the Army officers and particularly those trying to become officers. To identify, recruit, and select future officers, the Army operates within three primary commissioning sources; the United States Military Academy at West Point, Officer Candidate School (OCS), and ROTC. The Army offers a fourth method of entering the service as an officer, called direct commissioning, that is used sparingly and only for specific professional skills requiring advanced civilian education and training (Army Regulation 135-100, 1994).

While OCS selects potential officers from within the organization, West Point and ROTC most often reach outside the military and compete with the civilian market to recruit talent. To remain competitive, the Army uses the 4-year scholarship to gain potential academy and college students and the scholarships for 2 or 3 years to attract students already in college. The West Point scholarship system is controlled by congressional appointment to enter the academy (Army Regulation 601-100, 2005).

From the inception of the all volunteer force in 1973 to the Army of 1998, the results of the officer recruiting effort yielded 20 percent of the active duty officers produced by West Point, 10 percent from OCS, and the remaining 70 percent from ROTC. From 1998 to 2008, as West Point commissions remained constant by law, OCS commissions grew and ROTC commissions gradually fell to a point where beginning in 2008, each produced roughly 40 percent of the total officers Wardynski, et.al. (2009). In response to arguments concerning the best mix of entry level officers by commissioning source, research suggests that increasing the percentage of OCS graduates helps compensate for the dwindling number of active duty ROTC instructors and produces experienced commissioned officers in a fraction of the time needed by ROTC or West Point. On the negative side, OCS depletes the Army's enlist corps of talent and produces an older officer closer to military retirement age than your typical college or military academy graduate (Wardinski, Lyle & Colarusso 2010).

Regardless of commissioning source, the leadership expectations for entering the Army as an officer are consistent and follow the tenants found in FM 6-22. Outside the military, there exist many views and models of leader requirements. In a study of organizations that excelled in businesses practices and achieved results beyond those of their competitors, companies were examined that, according to Collins (2001), went from good to great. The study led Collins to

three conclusions: begin with "who" rather than "what" and you can better adapt to changing situations; with the right people, the problem of how to motivate and manage largely goes away, and the company will have the ability to create a culture of discipline; and with the wrong people, vision means nothing. When examined through the lens of the Army's Leadership Requirements Model, the Collins' great company model is similar in acknowledging character, discipline and the ability to adapt as employee attributes necessary for success.

Collins (2001) defined great companies as those who have three critical outputs. The first is that they demonstrate superior performance in their field like a sports team winning a championship. The second is that the organization must show sustained success like a business with continuous returns on invested capital in excess of other companies in the same industry. The third is that an organization must have made a distinctive impact to an extent that if the organization disappeared it would leave a void that is not easily filled.

Similarly, the corporate leader and political figure Herman Cain espouses that effective leaders must remove barriers, lead actions and inspire people. The barriers that leaders must overcome appear as three types: job related barriers like inadequate training or poor performance; personal barriers like low self-confidence or poor attitude; and family related barriers that are those outside human influences dealing that prevent employees from performing to their potential (Cain, 1997). Whether the model contained concepts like those proposed by Collins or Cain or the Army, all have the same basic standards; leaders must have a solid character, influence through action, and care about people.

Referring to the global economic crisis of early 21st century, Bennis (2009) cites some basic reasons why leaders are important. First, leaders are responsible for the effectiveness of

organizations, and the success or failure of all organizations rests on the quality of their decision makers. Second, organizations need what he called anchors and guides to inspire followers and restore hope in tough times. Finally, authentic leaders are able to analyze the context and transcend the perceived lack of integrity in U.S. institutions. In his research, Bennis (2009) claimed that there were many qualities that leaders possess, but five basic ingredients stood-out to him after observing national level leaders since 1985; vision, passion, integrity, curiosity and daring. The term vision, generally used in operational and strategic levels of Army doctrine, denotes a more long-term concept and is not part of the basic leader requirements model (Army Regulation 600-100, 2007).

To Bennis (2009), passion was the leader's enthusiasm and the ability to transfer it to others. Passion closely related to many of the core leader competencies and was evident in everything a leader did. Integrity, one of the seven Army values, was further defined by Bennis as self-knowledge, candor, and maturity. By grouping curiosity and daring together, Bennis suggested that good leaders must take calculated risks, experience failure and learn from mistakes much like what junior military officers will experience in their training and development.

In August 2009, to mitigate the effects of restricted funding and nearly a decade of continuous combat involving U.S. troops, the Army launched a new recruiting campaign to increase awareness of the process in becoming an Army officer. Labeled the "Officership Campaign," the advertising and marketing venture presented stories from Army officers to inspire a patriotic following and demonstrate leadership opportunities for junior officers. The campaign's design was to generate broader awareness to the many ways a prospective officer can lead soldiers and serve his or her country while diminishing the financial benefits advertising

methods of the past. In its research, the Army advertising team determined that there was little awareness among officer-prospects and their influencers like parents, teachers, counselors and coaches of what it means to be an Army officer and the four different pathways to become an officer. This marked the first time that any service launched a national effort related to officership with a goal to help define and clarify to the American public what it meant to be an Army officer (Merriman & Dahms, 2009).

The officership campaign is fitting only if viewed as part of a profession. Research conducted by Snider (2005) on the Army as a profession suggested that many post Cold War officers saw the profession as damaged due to excessive bureaucracy and a leader education and development system out of synchronization with the Army's ongoing operations. Research also revealed a perception among people outside the military that officers were not required in leading soldiers and only added to the unnecessary levels of bureaucracy found in our armed services. Snider concluded that the damage done during the Army officer drawdown during the 1990s was reversed after the events of 9/11, when the United States learned that our military security was insufficient and the need for a revitalized officer corps was required (Snider, 2005).

As part of the military science and leadership tracks in the ROTC curriculum, Officership was already more than a campaign slogan in ROTC training and education. Officership education in ROTC included three elements; military heritage, military history, management and administration. Military heritage made the cadet aware of the customs and courtesies of the service by observing cadre members model the behaviors in both formal and informal settings. Military history allowed cadets an opportunity to study vignettes of past leaders to enhance critical thinking through the evaluation of leadership styles, problem solving, and decision making. The final task under officership was management and administration, where cadets

learned policies and procedures related to the oversight of Army support organizations such as human resources, facilities, and logistics. Officership training and education provided the background necessary for cadets to apply lessons learned to the contemporary military operating environment (Applied Team Leadership, 2009).

Leader Development

"It has been said that leaders are born, not made; that leadership is intangible. These are at best, half truths. Leaders are born. Leaders are also made. Leadership is intangible but only to the extent that we make it so." (Department of the Army, Pamphlet No. 22-1, 1948, p. 1).

Leader development begins as a cadet enters ROTC and allows growth over a period of two to five years. A two year development process is the result of one of two situations for a cadet; participation in a military junior college or lateral entry into a senior ROTC program. For those entering the ROTC program after the freshman year, the Army administers the Leader Training Course each summer. This course provides a method for cadets entering ROTC after as an academic sophomore or junior to receive the same training as their peers gained in ROTC prior to attending the Leader Development and Assessment Course (LDAC). The Leader Training Course has an evaluation component, but it does not count toward cadet accessions as LDAC does (Army Regulation 145-1, 2011).

Army leader development is part of the officer education system (TRADOC Regulation, 350-18, 2010). The Army Officer Education System (OES) is progressive and sequential professional development process beginning in the pre-commissioning phase (BOLC A) and continuing in schools throughout the career of an officer. OES includes the basic (BOLC B) and career courses, the Command and General Staff Course, the School of Advanced Military Studies, and the Senior Service College (Army Posture Statement, 2010).

The leader development of the cadets examined in this study fell under an outcomes based curriculum centered on five military science and leadership tracks; leadership, personal development, values and ethics, officership, and tactics and techniques. In order for a cadet to be prepared to attend LDAC, three objectives were required to be met. First, the cadet must be able to apply the Army leadership requirements model while leading teams. The cadet must also be able to apply tactical principles and doctrine to Army operations. Finally, the cadet must self analyze the readiness to enter LDAC in terms of flexibility, character, adaptability and fitness (Applied Team Leadership, 2009).

Army officers serve multiple roles and each role comes with duties and obligations. The role of professional service is one that requires development, since each officer has a legal obligation to uphold the laws of the Nation and the policies of the military commanders. An important challenge to recognize is the education needed to understand the science of applying doctrine, policy and law while exercising the art of leading soldiers in uncertain situations. These obligations are not phased into an officer's list of responsibilities, but rather become part of the officer's service requirements from the time of taking the oath of commissioning. For this reason, professional development, prior to commissioning, is vital to overcoming a lack of experience (Snider, 2005).

In the mid 1980s, Porter and McKibbin (1988) studied the future of business management, education and leader development which served as a comprehensive review of all American management education delivery systems at the time. In their research, they reported a steady increase in the number of companies with management development programs beginning with five percent of companies having such programs in 1946 to more than 50 percent in the mid 1950s to all of the corporations studied in the 1980s. In the 245 interviews conducted with

manager development directors, they found that all of the companies studied had programs geared toward leader development, only 14 percent devoted more than five days a year per manager to these activities. In similar research conducted by Bersin and Associates, most large U.S. companies follow the 70-20-10 model of development activities, where 70 percent of the time is experiential learning, 20 percent is through contact with supervisors, evaluators and mentors, and 10 percent is by way of formal education (O'Leonard & Lowe, 2012).

In a post 9/11 report released by the Army's Training and Leader Development Panel (ATLDP), the members saw a need to improve the Army's doctrine, organization and materiel systems to continue with the transformation of the force. The panel, under the direction of the Secretary of the Army, sought to examine training and leader development as they relate to the Army's Transformation Campaign Plan (ATLDP, 2003). The Army transformation at the turn of the 21st century was the beginning of a 30-year plan to satisfy two primary goals; to be able to execute a broad range of operations against unpredictable enemies and to build a lighter, survivable and more lethal force capable of rapid deployment anywhere in the world (Schuster, 2001).

In its research, the ATLDP (2003) organized into three study groups to assess the three pillars of army development; the unit, institutional, and self-development pillars. A fourth study group examined Army culture as it relates to officer development, service ethic, and retention. The panel contacted over l3 thousand soldiers worldwide from all cohorts, components, and major commands using surveys, focus group interviews and personal interviews. In result, the panel identified seven strategic imperatives that were keys to the success of improving Army training and leader development:

1. Recognize the strong relationship between Army culture and the quality of training and leader development programs.
2. Reorganize the officer education system which was not synchronized with the requirements of the transforming force or the operational environment.
3. Army doctrine was outdated in relation to unit training at the tactical level and needed fundamental change.
4. There was a need to return to standards-based training. The panel assessed that standards differed between units, and soldiers needed a common set of standards. Also these standards needed to be accessible and digitally documented.
5. Soldiers needed a training and leader development model that illustrated a linkage between leader training and leader development.
6. To solve items (1) through (5), adopt and institute a management process to facilitate managing change.
7. Army leaders needed to support lifelong learning through the balance of educational and operational experiences. Soldiers needed to fill the gaps by engaging in self-development all the way.

In addition, the fourth study group found that the beliefs and practices of the soldiers from sergeant to general played key roles in the effectiveness of training and leader development through a commitment to the service ethic and embracing the character traits described in the Leadership Requirements Model (ATLDP, 2003).

Two years later, The Army's Leader Development and Education Task Force in coordination with experts in the field of leader development in academia, business, civil service, and the research community said the Army must train and educate Army members as a joint

team, meaning training with all military branches of service and non-military government partners. The task force concluded that leaders must be able to deal with complexity on many fronts and on many levels. The Army's variety of missions call for leaders with superior professional agility grounded in the Army values. On the modern battlefield, Army leaders will make decisions that routinely cross historical authority, and we will feel the effects of their decisions instantaneously. The prospect of having time to learn from mistakes on the modern battlefield is gone. Soldiers must have experience embedded in them before they arrive in the area of operations (Harai & Summers, 2005).

Military organizations place great emphasis on leadership and strive in various ways to train or develop effective leaders (Bennis, 2009). To be successful, these training programs must be grounded in a good understanding of what factors are related to and may contribute to good leadership. In a four year study of 1998 commissioning class of cadets from the United States Military Academy at West Point, researchers found that both cognitive and personality variables, can predict leader performance. In this study, five variables were used; spatial judgment, logical reasoning, social judgment, problem solving, and college entrance exam scores. The variables were assessed prior to the cadets (N=1,143) entering the academy, and all the cadets studied were members of a single class. Due to normal attrition, the original class cohort was reduced over 4 years to a final study group of 855 cadets. Complete leader performance data were used during the cadets' junior and senior years in the academy. The results showed that college entrance exam scores and social judgment were consistent predictors of leader performance. Logical reasoning demonstrated some predictive power but was not significant as an independent predictor. Problem solving and spatial abilities measures did not predict leader performance (Bartone, Snook, & Trueman, 2002).

As with West Point cadets college entrance exam scores, the general aptitude of soldiers, measured by Armed Services Vocational Aptitude Battery (ASVAB), predicts job performance (ASVAB, 2013). Other research shows that personality characteristics such as hardiness, perseverance and passion for long-term goals, and interpersonal skills predict overall performance of cadets Fallesen, Keller-Glaze, & Curnow (2011). This research highlights that 21st century Army leadership has changed in four district ways:

1. There has been an evolution from job-skill approaches toward competency-based approaches.
2. The measurement of leadership has shifted from cognitive factors to interpersonal competencies.
3. Current leader development practices focus on preparing leaders for the full spectrum of operations.
4. The focus on contextual factors has led to increased research in situational leadership.

In a RAND Corporation report from 2006, indicates that future leaders will need more preparation and experience. Leaders will need five key intellectual skills to confront new challenges in the contemporary operating environment; pattern recognition, the ability to gain situational understanding, the ability to build mental simulation, critical thinking, and adaptability. The information presented in the RAND study was from post cold war studies of U.S. military operations in Somalia, Bosnia, Kosovo, Haiti, Kuwait, Afghanistan and Iraq (Leonard et. al., 2006).

In a report from the Center for a New American Security (CNAS) (2010), researchers suggested that training and education of military officers to meet modern demands requires even

further change than has occurred in since the Army transformation began. The report captured four trends that have and will alter the skills and knowledge that military officers will need in future conflict:

1. The increase of wars that extend beyond military forces into civilian groups.
2. The increase of humanitarian and peacekeeping missions in parts of the world with which the United States has little experience.
3. Widespread access to weapons of mass destruction.
4. The 24-hour global media environment.

Because of these trends, CNAS determined officers must develop broader knowledge of international politics and economics, as well as a strong sense of cultural awareness. Junior level leaders most often find themselves in position to respond to developing situations that can shape the battlefield in the absence of more senior leader and public affairs officers. In the same report, the authors also identified the domestic factors that hamper the maintenance of a strong officer corps. The first was a weakened U.S. economy will require trade-offs between personnel and materiel procurement in the defense budget. The second was the best potential officers were recruited by civilian corporations and pushed from the service by the many deployments since 2003. The last was research that suggested that up to 75 percent of Americans aged 17 to 24 years old are ineligible for military service due to a combination of obesity, poor education, drug use and criminal records (Nagl & Burton, 2010).

From a strategic viewpoint, Training and Doctrine Command Pamphlet 525-3-0 (2009) describes broad capabilities the Army will require in 2016-2028. The document serves guide to how the Army will apply finite resources to overcome adaptive enemies and accomplish

challenging missions. The document's concepts will lead force development and modernization efforts by establishing a common framework for conducting future joint land operations and accomplishing missions under conditions of uncertainty and complexity.

According to General Martin Dempsey (2011), Chairman of the Joint Chiefs of Staff and former commander of the Army's Training and Doctrine Command, our future leader development programs will need to produce a more creative officer to handle the complex problems found in the environments that our service members now operate and emphasized that developing adaptive leaders should be the number one imperative for the continued health of the Army profession. General Dempsey cited two documents that served as the best guides for the leader development efforts of the Army; "The Leader Development Strategy for a 21st Century Army", published in November 2009 and "The Profession of Arms", a white paper released in December 2010. The first of these documents addressed the full spectrum of leader development issues but did contain guidance that specifically targeted entry-level officers. The strategy called for new officers to become proficient in using their weapons and equipment, to set a personal example of professionalism, and to act decisively in fluid situations with a deep sense of honor and ethical standards. As described in Dempsey's "Profession of Arms" (2010), the Army profession has five attributes shared by both the organization and the individual leader: expertise manifested in unique skills, a relationship of trust with the client, continuous development, absolute values that lead to solid character, and the element of service to the Nation.

From the civilian sector, numerous leadership theories are available that may help define the type of officer that General Dempsey was describing and the anticipated product of the officer development program. Research says leader behaviors are functional in teams through the identification of two types of leaders; those that were task focused and those that were people

focused. Under the task-focused group, the study included examinations of three different leadership behaviors: transactional, initiating structure, and boundary spanning. In the person-focused group of leadership behaviors were transformational, consideration, empowerment, and motivational. While the researchers concluded that both task oriented and people oriented leader behaviors correlated to team performance outcomes (Burke et al., 2006), the study opened the door to more discussion of the right mix of leadership behaviors required to maximize the effectiveness of organizations. The following is a more detailed description of the study leadership behaviors and results.

Sometimes labeled as maintenance leadership, transactional leadership describes a leader who operates within a culture or system not requiring change or adaptation. The transactional leader entered the system with a goal of maintaining routine operations through satisfaction of workers needs by rewarding behavior, devoting close attention to mistakes or deviations from standard procedures, and taking swift action to make corrections (Waldman, Ramirez & House, 2001). Transactional leaders were found in situations where task accomplishment is paramount and directive structure was required (Pearce et al., 2003).

Initiating structure behavior is a goal oriented theory where leaders define their roles and the roles of their followers. The initiating structure leader uses a well defined chain of command and a rigid communication patterns. Studies indicated that that initiating structure has only a moderate relationship with organizational performance (Judge, Piccolo & Ilies, 2004). Burke et al. (2006) found that the structure behavior acted as a resource for purpose oriented direction and guided teams to solve problems through clear purpose and direction. Ironically, the definition of leadership that Army uses includes a statement about providing purpose, direction, and motivation to accomplish missions (FM 6-22, 2006).

Boundary spanning behavior is a task-focused approach where leaders use collaborative efforts outside the organization to leverage resources for the team. Boundary spanning includes the efforts of the leader to gain critical information from the environment or outside sources but must be effectively managed. This behavior has been associated with successful technology implementation and team's perception of their effectiveness (Burke et al., 2006). Hirst and Mann (2004) found that boundary spanning is a fundamental element of information search and structure.

From the standpoint of the ever changing business and military environment, some research claimed that the best leaders were able to influence organizations in three ways; adaptation, efficiency, and human resources (Yukl & Lepsinger, 2006). Influencing others to accomplish missions requires a balance of getting the job done while taking care of people. The people-focused behavior approach assumes that by being people centered, leaders set the conditions for organizational effectiveness (Burke et al., 2006). Rather than a contrasting leader behavior approach, people-focused behaviors can exist in concert with task-focused behaviors as seen in the Army's Leader Requirements Model. The most prevalent of the people-focused behaviors is transformational leadership. The theory of transformational leadership, developed by Bass (1985), received much of the empirical attention in the 1990s in all types of organizational settings to include business and the military (Charbonneau Barling & Kelloway, 2001).

Transformational leaders have certain characteristics that enable them get people to think and act in innovative ways like acting as role models, sharing vision and ideas, and demonstrating genuine care for followers. Transformational leaders help followers grow and develop into leaders by focusing on their development needs and empowering them to exceed

developmental goals. Leaders do this by discussing the requirements of a task, the conditions under which the task is to be performed, and what is gained by accomplishing the task. Transformational leadership is an expansion of transactional leadership, where the focus is social exchange. Transformational leadership takes into account the need for individual thinking, intellectual stimulation, and charismatic inspiration alluding more to the art rather than the science of leadership (Bass & Riggio, 2006). Transformational leadership is closely linked to the concepts described by General Dempsey in developing the leader of the future.

To illustrate this concept studied by Bass and Riggio (2006) and described by General Dempsey (2011), a modern Army example best fits this leadership behavior. As part of the initial effort to begin the Army's transformation, General Shinseki (2000) led the Army and the nation into what he called "the most significant effort to change the Army in 100 years." (p. 9). Referring to the failure of the Army to change prior to World War I, Shinseki told members of Congress that it was critical to make the necessary changes in a time of peace and economic prosperity rather than in times of conflict. The objective force that he envisioned provided greater responsiveness, agility and versatility. Furthermore this force concept was rotational in nature, meaning that while one unit was deployed, a similar unit was recovering from deployment and a third was preparing to deploy. These changes included the institutional Army that required immediate change to lead an interim force through this dramatic shift in culture.

In 1999, General Shinseki recognized that the Army consisted of forces that were responsive and forces that had tremendous combat power, but no forces that were both. The objective force required a cultural shift in all aspects of the Army to change from the legacy force, built over time to handle the contingencies of the Cold War, to a future force equipped, trained and professionally led to handle a new set of potential threats. While the vision was

almost radical at the time, the results were evident in the many force structure developments during the global war on terrorism (King, 2008).

Consideration leader behaviors include concern, respect, and caring for followers. Consideration can also be the act of expressing appreciation and support (Judge & Piccolo, 2004). Consideration is often attributed to the direct concern for the welfare of followers and reflects a system of open communication. This leader behavior is evident in organizations with close social relationships with an emphasis on satisfying employees needs (Burke et al., 2006). Goleman (2002) cites research to suggest that cooperative groups with leaders who solicit employees' opinions in organizational matters and show a genuine concern for the welfare of these same employees, show a propensity to make better decisions.

Empowerment, another people-focused behavior, refers to leaders concerned with development of followers to engage in self-management and participative goal setting. This behavior has also lies within social cognitive theory (Pearse et al., 2003). Empowerment focuses on personnel development through participative and facilitative leadership styles. This behavior was observed in situations calling for personnel management and most often used in conjunction with other leader behaviors (Burke et al., 2006).

The final leader behavior examined was motivational or team leadership. Motivational behaviors are those that cause team members to go beyond expectations even in times of adversity. This behavior includes support, reward, and recognition for both individual and group efforts. Motivation is a positive behavior and has some of the same aspects as consideration (Fleishman et al., 1991). FM 6-22 (2006) describes motivation as not only the reason for doing something, but also the level of enthusiasm exhibited in performing a task.

The results of Burke's meta-analysis to find the relationship between leadership behaviors and team performance outcomes strengthen the concept of the Army's Leader Requirements Model. The results suggested that both task-focused and people-focused behaviors by leaders explain a significant amount of variance in team performance outcomes. In terms of the balance between the task and people-focused behaviors, the Leader Requirements Model suggests the same conclusion.

In a six part series, Wardynski, Lyle and Colrusso (2009), analyzed the development of a U.S. Army officer corps strategy aimed at a talent-focused approach in creating and maintaining the Army's officer corps for the future. For this study, three of the six monographs were used.

In the first monograph, A Proposed Human Capital Model Focused on Talent, the authors concluded that in order to build this future strategy, the Army will need an combination of accessing, developing, retaining and employing talented people with high learning and problem solving skills and whose intellect allows them to master diverse competencies. While much of their study points to promotion and retention strategies for officers already serving in the Army, the selection of new officers, because of limited lateral entry options, is critical and impacts the quality of the talent pool for 30 years. The study mentioned several ways to build this talent base: match skills to jobs for existing candidates to maximize expertise, draw from the enlisted ranks for experience, and provide incentives for civilians with high potential in our colleges and universities to enter ROTC or OCS (Wardinski et al., 2009).

In the fourth monograph in the series, Accessing Talent: The Foundation of a U.S. Army Officer Corps Strategy, the authors suggested that accessing the right officer, verses trying to develop a less than optimal candidate, had a direct and lasting effect on the entire officer career

model in several areas. One observation was a realization that the talent demanded by the Army is also the same talent demanded in the civilian sector. Another area of concern was the understanding that accessing the right talent greatly improves the potential of retaining an officer after the initial service obligation expires. Finally, acknowledgement that the behavior and thought processes of the potential leaders found in the Millennial Generation are different than the previous generation of officers and require a revised approach in selecting talent (Wardinski et al., 2010).

The Millennial Generation is the population that the Army currently draws from to fill its entry-level officer positions. Born between 1982 and 2002, Millennials are said to be the first generation to use technology as a primary means of communication and are referred to as the tethered generation because of their close electronic ties to their parents. Research shows, they are on pace to be the most educated generation in U.S. history but also less likely to serve in the military. Conflicting ideals may be the norm rather than the exception when recruiting potential Army officers from this generation. While the Army has a narrow definition of a leader with the Leader Requirements Model, the Millennial Generation has expanded its level of tolerance of more liberal values in American society. Merging military and civilian culture is and will be a challenge for Army leaders (Davis, 2011).

In a Pew Research Center study, Millennials were found to be more diverse in terms of race and ethnicity but less religious than older generations. They are also more tolerant to the nontraditional beliefs and behaviors associated with marriage and parenting. The influence of technology on the generation has driven their social development and clearly separates them from others in the means used to transfer information. The combination of the recent downturn in the global economy and the percentage of young adults involved in higher education reflect

fewer Millennials holding full-time jobs and more working part-time than was recorded in older generations (Taylor & Keeter, 2010).

The Army has recognized the need for change as the Millennial Generation soldiers enter the military and the Baby Boomers exit. In 2008 at Fort Jackson, South Carolina, a program called Outcome Based Training and Education replaced the legacy goal-oriented training that relied on tasks, conditions and standards as the basis for all individual and small unit collective training. Outcome Based Training and Education focuses on outcomes versus process and has spread to all other Army training installations. An example of these changes was evident in rifle marksmanship, a historically key element of basic training. Under the goal-oriented training concept, soldiers were only required to identify and engage target silhouettes from distances of 50 to 300 meters while remaining stationary. With outcome-oriented training, soldiers now engage targets in an environment that more closely resembles the combat environments in Iraq or Afghanistan where soldiers are required to make quick decisions on engaging targets or holding fire in a 360 degree battlefield (Lackey, Kamena & Lackey, 2009).

In the fifth monograph in the Army officer corps strategy series, Towards a U.S. Officer Corps Strategy for Success: Developing Talent (Wardinski et al., 2010), the authors highlighted the criticality of developing talent for three reasons:

1. The national security of the United States depends on sending the best talent to accomplish the military's mission of fighting and winning wars.
2. Unlike civilian organizations, the Army must retain and develop the initial-entry talent that it has rather than hire from outside the service.
3. U.S. citizens trust that officers will lead and care for the soldier's entrusted to them.

The ideas found in this series of monographs parallel the needs identified in previous research by civilian agencies who studied military problems and private companies who studied leader recruiting, selection, and development. The requirement for leaders of character, strong intellect, and problem solving skills are consistent across all types of organizations.

Unlike military leaders, corporate leadership measures success in financial terms, but leadership studies involving profit earning companies have served as excellent models. In 1999, Bavarian Motor Works (BMW) experienced a net loss that, while not a surprise to its leaders, was not the norm in the successful company. While quality, production and marketing were always in the forefront of the business's strategy, the new CEO, Joachim Milberg, began taking a tough look at leaders through the company's Associate and Leadership Model. This model included a set of ten leadership principles and an active formula for leader development, which sought to grow leaders from within the company. The core philosophy of the model's leadership principles was positive culture, cooperation, and taking responsibility. In addition to applying the company's leadership model, Milberg also shifted the methods in which leaders were evaluated. Under his new direction, leader evaluations were based on results, corporate thinking, competency, and personal and team character. With the revival of these leadership principles, the company saw a dramatic shift in performance and in 2000, BMW reported all-time highs in deliveries, sales and profits (Avery, 2004). BMWs success is widely known around the world and in 2012 was named by Forbes Magazine as the world's most reputable company (Smith, 2012).

As seen in the business world, the Army made a shift in leader development with the introduction of the Basic Officer Leadership Course (BOLC) in 2006. The concept of BOLC was part of the Army's education system transformation and replaced the Officer Basic Course

(OBC) system used since the mid 1980s. BOLC was implemented as a three phase system to take potential officers from a pre-commissioning source and train them to a level that prepared them to enter their first permanent unit. It included pre-commissioning training and education at USMA, in ROTC, or in OCS; a seven week general introduction to basic skills and leadership as a second lieutenant; and a 15-week course in branch specifics. In 2010, the BOLC model changed to a two phase program which combined the general introduction (basic) course and the branch specific course (TRADOC Regulation 350-36, 2012). By the structure and timing of this study, all participants fell under the 2010 two-phase BOLC system; although, when most of the participants entered ROTC, the three-phased system was in effect.

The two-phase BOLC system consists of BOLC A and B. BOLC A begins with entry into an Army commissioning source and ends with the entry in BOLC B as a second lieutenant. BOLC B is the merger formed by joining officer initial military training and branch specific training. According to the U.S. Army Training and Doctrine Command (TRADOC Regulation 350-36, 2012) the combination of BOLC A and B should produce an officer proficient in six development outcome areas:

1. Values and ethics
2. Leadership
3. Professionalism and officership
4. Personal development
5. Technical competency
6. Tactical competency

The purpose of BOLC A is to provide a commissioned officer who can demonstrate the Army values and effectively lead soldiers. As ROTC cadets in this study, these potential officers were exposed to all aspects of the Leadership Requirements Model and examples of professional officers both on campus and at LDAC. As part of BOLC A, technical and tactical competency was only trained at the fundamental level, and cadets receive only limited opportunities to perform as leaders in small unit assignments. Within the six development outcome areas, there were a total of 85 common core tasks accomplished in the BOLC system. 58 of the 85 tasks were covered in BOLC A. The purpose of BOLC B is to reinforce the training and education received in BOLC A, to train the remaining required BOLC tasks, and develop an officer ready to enter his or her first permanent assignment (TRADOC Regulation 350-36, 2012). LDAC and the accessions process were both included as part of BOLC A. Since officers were commissioned in the BOLC A phase, BOLC B training, education and evaluations were not part of this study.

Evaluating Leader Performance and Potential

Leader development, from the standpoint of Army ROTC, is a process of training, assessment and counseling to develop and measure individual leadership potential. Cadets train to meet the immediate needs of the Army under a standardized structure with decentralized execution on the campuses of our colleges and universities. The links to evaluation and accessions are the Leader's Training Course and ultimately the Leader Development and Assessment Course (LDP Handbook, 2009).

For this study, the evaluation standards for leadership on campus and off-campus were explained using the Leadership Assessment Report. The Army's Leadership Assessment Model (see Figure 2) and the Cadet Leadership Assessment Report (see Appendix E) contain the same

categories of attributes and core leadership competencies, therefore the expectations for leaders are the same for soldiers already in the Army and for the cadets in ROTC (Cadet Command Circular 145-05, 2010). During the accessions process, multiple Leadership Assessment Reports are collected and analyzed to develop the Cadet Evaluation Report which is part of the accessions packet (Cadet Command Regulation 145-3, 2006).

Once a cadet receives a commission, the leader assessment report system is no longer used and cadet leadership scores are not part of an individual's performance file. New lieutenants are evaluated using the Officer Evaluation Reporting System which identifies officers who are best qualified for promotion and assignment to positions of higher responsibility. It also identifies those not ready for promotion and those who should be eliminated from military service (Department of the Army Pamphlet 623-3, 2012). The Officer Evaluation Report (OER), like the cadet Leadership Assessment Report, follows the methodology of the Leadership Requirements Model. Both reports share the same general expectations of character, attributes, skills, and actions or results as outline in Army leadership doctrine (FM 6-22, 2006).

According to Cadet Command Regulation 145-3 (2006) and the LDP Handbook (2009), the Cadet Evaluation Report (CER) mirrors the leadership dimensions on the Officer Evaluation Report (OER) to familiarize cadets with the evaluation process that they will experience as a junior officer in the Army. In specific comparison, the cadet Leadership Assessment Report differs in terms of the 17 leadership dimensions measured. This difference in report criteria is explained by the cadet development process which begins with basic life skills as an entry level student but transitions to intense leader training and evaluations in the third year of the program (LDP Handbook, 2009). Figure 5 illustrates the similarities (left) and differences (right) in the

leadership dimensions measured by the cadet Leadership Assessment Report, which are the same as the Leadership Requirements Model, and the CER/OER dimensions.

Similarities		Differences	
Cadet Leadership Assessment Report	**Cadet/Officer Evaluation Report**	**Cadet Leadership Assessment Report**	**Cadet/Officer Evaluation Report**
Physically Fit	Physical	Confident	Emotional
Mental Agility	Mental	Resilient	Conceptual
Interpersonal Tact	Interpersonal	Innovation	Tactical
Communicates	Communicating	Military Bearing	Building
Prepares Self	Learning	Extends Influence beyond the Chain of Command	Motivating
Leads others/Sound judgment	Decision making	Creates a Positive Environment	Assessing
Develops Others	Developing	Leads by Example	Planning
Gets Results	Executing		
Domain Knowledge	Technical		

Figure 5. The Army Leadership Requirements Model, 2006, *Field Manual 6-22, Army Leadership*, p. 2-4 compared to the Officer Evaluation Report, Department of the Army Form 67-9, *Army Regulation 623-3, Evaluation Reporting System*, 2012

The linkage between academic achievement, leadership potential and physical fitness was the basis for this study's purpose and design but not always clearly evident in the leader assessment process. In research linking physical fitness to leadership, Serio and Wagner (2010) found that clarity, confidence, effectiveness and vitality are key components of a successful leader; vitality was described as the element that holds the other three components together. Vitality was characterized by energy, stamina, and endurance and leaders with vitality tend to eat

healthier, drink more water, and engage in regular exercise. The study also suggested that physical fitness enhances key leadership traits, dependability, endurance, and bearing. In addition to these leadership qualities, others believe that physical performance improves transformational leadership. Charbonneau, Barling, and Kelloway (2001) developed a test model to investigate sport performance effects on transitional leadership. The researchers studied collegiate athletes and coaches of those same athletes and found a strong relationship between physical performance and intrinsic motivation, and intrinsic motivation was found to be related to transformational leadership. In a longitudinal study, researchers examined the relationship between Type A behavior, as assessed by a modified Hunter-Wolf rating scale, and self-reported physical activity. The results demonstrated that leadership was highly associated with physical activity and also predicted persistent adult exercise behavior. The results also suggested that leadership and physical activity both correlated to high self-esteem and high achievement motivation (Yang, 2012).

Research also supports the accessions model that grade point average is associated with leadership components. Judge, Colbert, and Ilies (2004) conducted a study to examine relationships between intelligence and leadership and found that through meta-analysis, intelligence had a positive correlation with leadership. Wardynski, et. al. (2009) also emphasized the immediate need for the Army to recruit and retain leaders that possess high learning acuity and intellectual agility so they can negotiate diverse challenges and demanding global situations. Research shows that one challenge for the military is luring these high-potential prospects from the civilian labor market. With the pool of qualified young men and women able to fill our military ranks at an all time low, it is imperative that the leadership evaluation system is viable during this time of competition in the work force (Christenson, et al.,

2009). The leader development program used by U.S. Army Cadet Command contains the flexible methodology used to accommodate personalized and individual growth in ROTC cadets. This system includes basic leadership training, periodic assessment, and counseling by experienced observers to handle the problems associated with officer selection (Cadet Command Regulation 145-3, 2006).

The LDAC Experience at Joint Base Lewis-McChord

The Leader Development and Assessment Course (LDAC), also known as Operation Warrior Forge, is held annually in June and July at Joint Base Lewis-McChord, Washington. In February 2010, as a result of a Base Realignment and Closure (BRAC) Commission decision, Fort Lewis merged with McChord Air Force Base to create a joint base under one garrison command structure, thus the name change (Sorenson, 2007). The purpose of LDAC was to train U.S. Army ROTC Cadets to Army standards, to develop their leadership skills, and to evaluate their officer potential. LDAC 2010 was comprised of seven training cycles with two regiments of cadets in each cycle. One cycle consisted of about 1000 cadets who were evaluated over 29 consecutive days (Cadet Command Regulation 145-5, Jan 2010).

The following is an example of the LDAC training and evaluation schedule:

Day 1 – Arrival and administrative processing. Each cycle consisted of approximately 1000 cadets from various ROTC units which created an environment of cultural diversity and unfamiliarity. Cadets were assigned to a regiment of nearly 500 cadet before departing home station, divided into companies (approximately 250 people) and further divided into platoons (approximately 50 people) once they arrived LDAC to occupy their barracks and meet their cadre. Cadet units were assembled with a proportional mix of all demographic groups represented in each cycle. Unit cadre teams were screened to ensure no instructor was

responsible for evaluating a cadet from his or her own ROTC program. The platoon was the basic unit for training and defined the peer group for cadet individual evaluations.

Day 2 – Physical examination and drug testing. All cadets received a physical examination to ensure they were fit for military service. For many, this was the first time that they were screened by an Army physician, so it was not uncommon to find that some cadets were not medically qualified for service. Those unfit for service by Army standards or those who failed the drug test were dropped from the course. Those who failed to meet the height/weight standards were either dropped from the camp or allowed to stay pending the results of a body mass screening. Cadets who wanted to compete for the aviation branch during accessions, were required to take the flight physical examination.

Day 3 – Receive equipment, organize barracks and prepare for evaluations. Cadets arrived with 62 essential items from their home college or university and were issued an additional 30 items once they arrived (Appendix A). Cadre members used this time to coach cadets on evaluation procedures, equipment accountability procedures, safety and individual discipline while at LDAC. Cadets used this time to become acquainted with those in their squad and platoon while preparing their equipment for field operations.

Day 4 – Army Physical Fitness Test (APFT). The APFT measured each cadet's upper and lower body muscular endurance. It was performed outdoors while wearing a t-shirt, shorts (issued to each cadet) and running shoes that the cadet brought from home. The APFT served as an indicator of a cadet's ability to handle his or her own body weight and scoring was adjusted for age and the physiological differences in sex.

Day 5 – Field-craft training, set up a tactical training base and written map reading test (1st night in the field). Prior to Land Navigation, cadets participated in field-craft (survival) training while

living and sleeping in the woods. The objectives of this non-evaluated training event were to expose cadets to the environment they would be operating in during field evaluations, develop or reinforce existing skills related to field survival and to practice noise, light and litter discipline. The land navigation instructors also administered the written map reading examination in the field which was used as part of the overall land navigation score. The written map reading exam was a 20 question, multiple choice test administered in a tent on a table. Cadets were given a map, pencil, map and protractor to complete the test within 75 minutes.

Day 6 – Land navigation test (day and night). The Land Navigation evaluation consists of three events totaling 100 points and, like the APFT, served as a must pass event to graduate from LDAC. The written examination was worth 20 points, the day land navigation test was worth 50 points, and the night land navigation test was worth 30 points. Each cadet had to earn 70 percent on each of the three tests to pass this event. If a cadet failed to meet the 70 percent standard on any of the three events, a retest on the failed event was required. If a cadet failed any element of the first test but passed the retest, the score recorded for final evaluation was a 70 regardless of the retest score. Like the APFT, if a cadet failed to meet the minimum standard after retesting, he or she could be dismissed from LDAC and disenrolled from the ROTC program, pending the results of a board hearing. The land navigation course itself covered 11 square kilometers on flat wooded terrain. To receive a passing score, cadets were required to correctly answer 14 of 20 questions on the written map reading exam, locate five of eight navigation points in less than five hours during the day phase, and find three of five points in less than three hours and 30 minutes at night. The land navigation course was conducted in all weather conditions.

Day 7 – Chemical, Biological, Radiological and Nuclear (CBRN) training and land navigation retest if necessary. CBRN training taught cadets how to administer a nerve agent antidote, how

to protect themselves from chemical and biological contamination using their assigned protective equipment, decontaminate themselves and their individual equipment using chemical decontaminating kits, and reaction drills to a chemical or biological hazard. In addition, cadets were also required to walk through a tear gas chamber while wearing a chemical protective mask and complete an obstacle course wearing a full chemical resistant suit.

Day 8 – Confidence course training. This training included climbing and rappel training, the zip-line, log walk, and obstacle courses. Confidence training was designed to challenge the cadets' physical courage, build confidence in personal abilities, and overcome fear. At the rappelling site, each cadet executed one 17-foot practice rappel and several 37-foot rappels. Cadets demonstrated confidence in their ability to overcome fear of heights by executing the confidence course, the 40-foot high log walk and zip-line.

Day 9 – Weapons training and firing. Cadets familiarized themselves with the operation and employment of infantry squad weapons and requesting artillery fire. The cadets trained in the fundamentals of operating weapons, engaging targets and the emplacement of crew-served weapons to include machine guns and grenade launchers. Individual weapons qualification scores were not part of a cadet's LDAC evaluation.

Day 10 – First aid training and evaluation. Cadets developed confidence in their ability to react properly to battlefield wounds. Through hands-on training and evaluation, cadets learned critical first aid techniques and received evaluations on basic combat lifesaving skills. This was an untimed, individually scored event.

Day 11 – Field Leadership Reaction Course (FLRC). The FLRC was designed to develop and evaluate leadership, and to build teamwork early in the training cycle. The FLRC is a series of obstacles where cadet leaders were required to make timed decisions, communicate plans to their

squad and motivate their subordinates to accomplish tasks. The course administration was accomplished using the established cadet chain of command, and evaluators rotated leaders until each cadet received an evaluation. Cadet leadership potential was assessed by committee evaluators, and cadets were provided the opportunity to receive feedback on their leadership strengths, weaknesses, styles and techniques.

Day 12 – Three kilometer foot march and obstacle course. This was a test of physical and mental toughness as some cadets began to experience fatigue after nine days of intense training. At the conclusion of this training, cadets prepared their equipment for tactical field training.

Day 13 – Static load training and tactical maneuver training. Static load training familiarized cadets with helicopter safety, loading and unloading procedures in preparation for air-mobile operations. In tactical maneuver training, cadets learned individual battlefield skills, combat movement techniques and procedures necessary for subsequent tactical training at the squad level. Maneuver training was a vehicle to teach and evaluate leadership and prepared the cadets for maneuver evaluations. This training was designed to introduce conditions that paralleled the stress found in combat. Tactical training provided performance-oriented reinforcement opportunities and increased the degree of difficulty and sophistication of training events. Cadets learned the skills necessary to function in a Tactical Training Base (TTB), and a building-block approach provided the best opportunity for cadets to learn and for cadre to assess leadership potential. For the next nine days, cadets would operate out of a hard site facility between maneuver training, squad situation training, and patrolling. Cadets learned how to provide security by guarding gates and conducting squad-level reconnaissance around the TTB while preparing for future tactical operations.

Day 14 – Air-mobile training. The cadets learned how to properly board and dismount from a military helicopter in a tactical situation. The cadets were then flown into a tactical landing zone where they began the situational training exercise.

Day 15 – Day 18 - Squad Situational Training Exercise (STX). Squad STX was a four-day, two-phase event. The first day, the squad training phase, was designed to train squad battle drills and collective tasks. The last three days, the Squad STX lane phase, was designed to evaluate leadership using tactical scenarios. Each cadet received two formal evaluations of his or her performance as a squad leader during this phase. Squad operations build on and reinforced all previous instruction, to include knowledge of land navigation, terrain analysis, weapons systems and all maneuver training presented earlier in LDAC.

Day 19 through Day 22 - Patrolling STX. Patrolling was a four-day event that provided cadets practical experience in leading soldiers at the section level in a challenging, realistic and fluid environment. Unlike squad STX, patrolling involved more detailed planning and long range missions that further tested cadets' skills. On the first day, cadets underwent training in preparation for patrolling and during the last three days, they participated in patrolling formal evaluations. Developmental feedback was provided to all levels of leadership. Patrolling built on and reinforced all previous instruction received during the course and concluded with a 10 kilometer foot march. Squad STX and Patrolling gave the evaluators many opportunities to assess cadets in not only leadership, but also in physical and mental stamina.

Day 23 – Battle command and land navigation retest if necessary. During battle command training, cadets were exposed to military command and control systems through computer simulation. This training allowed cadets to recover physically from Squad STX and Patrolling.

Day 24 – Branch Orientation. Branch orientation day gave the cadets a non-evaluated opportunity to explore demonstrations by representatives from the Army's 16 basic branches. Branch orientation allowed cadet's to ask questions to assist in their future branch selection process during accessions.

Day 25 – Confidence course #2 and three kilometer foot march. After 2 days of recuperation, cadets were once again tested physically on a confidence course and a foot march while carrying a 35 pound back pack and a rifle. This day also afford evaluators time to assess cadets who needed an additional opportunity to perform in leadership positions.

Day 26 – APFT #2 as necessary, immunizations and blood drive. Cadets and evaluators used this day to complete evaluations and counseling. When not engaged in counseling, cadets cleaned equipment for turn-in.

Day 27 and 28 – Equipment turn-in, barracks maintenance, physical training, and graduation rehearsals.

Day 29 – Graduation and departure from Joint Base Lewis - McChord.

The challenges presented at LDAC allowed for thorough evaluations of each cadet's leadership skills in demanding situations. The training began with individual skills which led to collective training and evaluations. This approach permitted integration of previously learned skills into more advanced training. For LDAC 2010, the evaluators were selected Army cadre members from the 273 ROTC units in Cadet Command. These cadre members arrived at Joint Base Lewis-McChord several days prior to the cadets in order to be trained and certified as evaluators to ensure consistent evaluations in accordance with guidelines of the Leadership Development Program. The LDAC day to day schedule changed slightly between cycles to handle competing demands on training areas and resources, but all cadets experienced the same

evaluation environment, standards and rigor. Although LDAC only provided a snapshot of a cadet's skills and abilities, it represented over 30 percent of the accessions score and influenced the accessions order of merit list (OML) and leadership potential scores completed by each professor of military science.

Chapter 3

Methods

The purpose of this study was to explore the U.S. Army ROTC accessions process and the validity of the accessions scoring system. To achieve this purpose, this study explored the strength of each of the three component scores (academic program, leadership program, and physical scores) in evaluating the overall leadership potential of a cadet preparing to enter the Army as a commissioned officer. The results of this study may be used by the United States Army Cadet Command for assessing the overall Cadet Leader Development Program to include the evaluation processes that contribute to the accessions score. The results may also be used by the Army ROTC unit commanders at colleges and universities for administering the training programs required in preparing cadets for the Leadership Development and Assessment Course (LDAC) and the accessions process. The information in this chapter explains the variables examined, describes the quantitative and qualitative measurements used to evaluate potential Army officers in the ROTC program, and provides an explanation of how the study was conducted.

Research Questions

The following research questions were used in the study:

1. To what extent do the weighted cumulative GPA score and the final accessions score correlate?
2. To what extent do the un-weighted cumulative GPA score and the final accessions score correlate?

3. To what extent do the weighted leadership score and the final accessions score correlate?

4. To what extent do the un-weighted leadership score and the final accessions score correlate?

5. To what extent do the weighted physical score and the final accessions score correlate?

6. To what extent do the un-weighted physical score and the final accessions score correlate?

7. What is the relationship between age and the final accessions score?

8. What is the relationship between sex and the final accessions score?

9. What is the relationship between the RECONDO award and the final accessions score?

10. What is the relationship between the Platoon Top Five award and the final accessions score?

Sample

The participants in this study were 774 Army ROTC students within the U.S. Army Cadet Command's Sixth Brigade. This brigade had supervisory responsibility for the 39 host Army ROTC programs in Alabama, Florida, Georgia, Louisiana, Mississippi, and Puerto Rico and accounted for 15 percent of the total number of Army ROTC cadets in the Nation. Of the eight brigades in Cadet Command, the Sixth Brigade was the largest of the eight brigades in terms of number of programs and cadet population. The data represented the cadets evaluated under the Cadet Command Accessions Program during the 2009-2010 school year and LDAC 2010. The participants were assigned to one of the host programs from the colleges and universities listed in Appendix B.

At the time the data were collected, the participants were part of the 2011 mission set, which meant they were scheduled to graduate and commission not later than September 30, 2011. Cadets who failed to complete the necessary academic credit hours to graduate and therefore commission in the fiscal year following LDAC were reassessed with the following

mission set (year group). This process, called migration, required brigade commander approval and a revaluation of the cadet's academic, physical and on-campus leadership scores. In the event of migration, cadets were not required to repeat LDAC and the original LDAC score was used during the accessions process. The data used in this study did not include students who migrated from a previous mission set, but included students who may have eventually migrated to the 2012 mission set. Neither situation had an impact on the design or results of the study.

The data set included special category cadets who had earned a degree and were commissioned at the end of LDAC. This study included nursing students who attend LDAC after their sophomore year because of the demands of upper division nursing programs to include summer nurse training programs outside the ROTC Program and the National Council Licensure Examination (NCLEX). This study did not distinguish between those cadets who attended LDAC after their junior year and those that attended at another time in their ROTC experience.

Data Collection

In this study, existing data were used from cadets in the 2011 Army ROTC commissioning year group. The data included all on-campus and LDAC evaluations for each cadet entered into the accessions model. Personal identifying data, other than sex and age, was not requested nor provided. Permission to conduct this study was granted by the Auburn University Institutional Review Board (Appendix C). Permission to use cadet accessions data from the Sixth ROTC Brigade was granted by U.S. Army Accessions Command (Appendix D).

The database used to collect the cadet scores in this study was the Cadet Command Information Management System (CCIMS) which was only accessible by cadre members and ROTC administrators. Those with access to the system were military instructors, Department of

Defense civilians and military contractors with active security clearances and assigned to human resource duties within U.S. Army's Cadet Command and Accessions Command. Security measures were established to ensure instructors could only enter data for the cadets in their units and only in the categories intended for on-campus evaluations. Cadets did not have access to this database but were routinely counseled on individual performance and on the data entered into CCIMS. During the LDAC evaluation period, human resource technicians at Joint Base Lewis-McChord were granted access to CCIMS and entered scores following each training event. The Army Physical Fitness Test (APFT) Committee and the Land Navigation Committee at LDAC were also granted access to enter the scores from their respective evaluated area. Home station unit instructors could view cadet scores CCIMS as they were entered but could not alter any LDAC evaluation. The LDAC Commandant of Cadets reviewed all failing scores daily and recommended reevaluations or dismissals to the Camp Commander. CCIMS was the only database used to record cadet scores throughout the accessions process. U.S. Army Accessions Command, Accessions and Security Division provided the 15 scores contained in the ROTC Accessions Model (see figure 6) from CCIMS plus the sex and date of birth for each cadet.

Figure 6 shows the ROTC Accessions Model used for the commissioning class of 2011. This model was published prior to the start of LDAC and provided to cadets during the academic year of the accessions process. Each category listed in the model is preceded by the weight in parentheses applied to that category for determining the final accessions score. In addition to receiving the model, cadets were provided the scoring data from the previous year group which revealed the high, low and mean accession scores and the required scores for each branch choice.

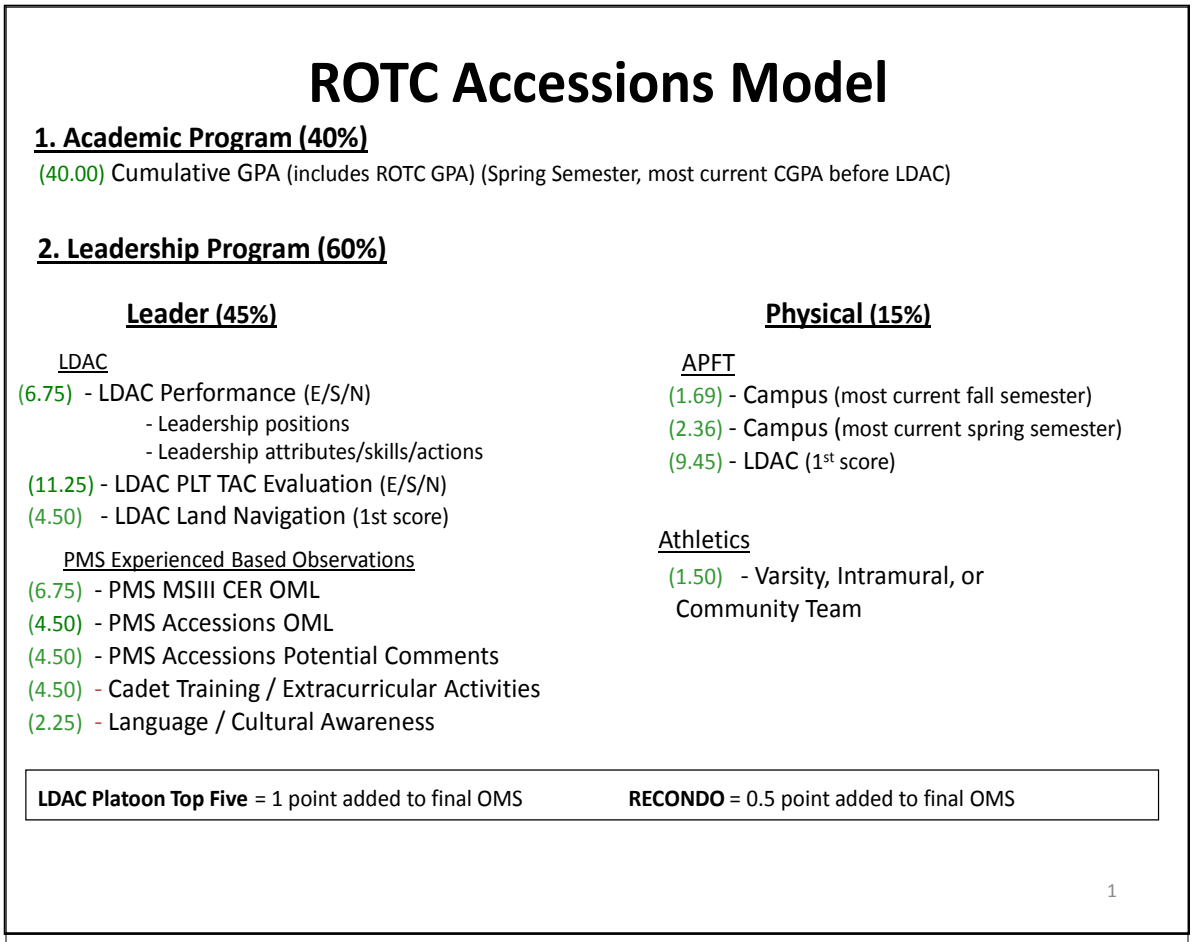


Figure 6, Army ROTC Accessions Model. Adapted from *U.S. Army Accessions Command Circular 601-10-1, Reserve Officers' Training Corps Accessions Fiscal Year 2011*

For this study, cadet scores for each event were entered into the model to produce the final accessions score. The following were the definitions of the acronyms used in Figure 6:

LDAC = Leader Development and Assessment Course also called Warrior Forge

E/S/N Ratings = Excellent/Satisfactory/Needs Improvement Ratings

PLT TAC = Platoon Tactical Officer (LDAC Evaluator)

PMS = Professor of Military Science (School ROTC Program Commanding Officer – one per college of university program)

CER = Cadet Evaluation Report

MSIII = Military Science level III student; typically a college junior in the third year of military science classes and on contract with the U.S. Army

OML = Order of Merit List (ordinal rank among peers)

OMS = Order of Merit Score (final accessions score used to determine national ordinal ranking)

APFT = Army Physical Fitness Test

RECONDO was awarded to cadets excelling in all scored events at LDAC.

Methods

As outlined in Cadet Command Circular 601-10-1 (2010), the cumulative GPA, the first component of the final accessions score, was the student's GPA at the end of the spring school term before attending LDAC as measured by each individual academic institution and based on a 4.0 system. A majority of the cadets in this study attended LDAC between their junior and senior years, so grades earned during a cadet's senior year generally did not have an impact on accessions scores. Those cadets whose senior year academic scores did impact accessions included lateral entry cadets who attend LDAC after their senior year, nursing students who attended LDAC after their sophomore year, and cadets who commissioned through a two-year program at one of the Military Junior Colleges. The cumulative GPA on each cadet official college transcript was entered into CCIMS by the host program ROTC staff at the conclusion of the spring term prior to that cadet reporting to LDAC. Only transcripts from the each cadet's

current college or university were accepted. ROTC grades were calculated in the cumulative GPA as were all credit earning elective courses but were not weighted to boost a cadet's academic record. For the accessions process, all academic disciplines were viewed as equal regardless of the perceived level of difficulty. Cadets were permitted to select their academic major with the exception of cadets in specialty programs such as medical, legal or theological disciplines. Each unit commander verified the academic scores entered into CCIMS at the end of the spring academic term.

The leadership score, the second component of the overall accessions score, was a combination of on-campus evaluations and LDAC scores. Figure 6 explains the evaluation topics and weighting for each under the heading Leadership Program. The rubric used to score a cadet's leadership ability was the Leadership Assessment Report, Cadet Command Form 156-4A-R (Appendix E), which was derived from the Army Leadership Requirements Model found in Figure 2 (Chapter 2) of this study.

On-campus leadership evaluations occurred three times per semester and were reviewed by each institution's ROTC commander. ROTC instructors at each school assigned students to rotating leadership positions during the fall and spring semesters preceding LDAC. Each position was unique and included various and multiple responsibilities with increasing difficulty. These assignments were meant to be challenging and provided an opportunity for each cadet to demonstrate leadership skills in either garrison settings or in a small unit tactical environment. Each Army ROTC program also used a standing administrative cadet chain of command where cadets received informal leadership evaluations and learned how Army organizations operate. Therefore, cadets were continuously being evaluated, either formally or informally, by their on-campus cadre.

As the cadets in this study progressed through the ROTC Program, they were assigned to increasingly challenging levels of responsibility pursuant to their professional maturity, experience and skills. There were seven leadership positions formally evaluated on-campus for each cadet and nine additional positions that were informally evaluated. The seven formally evaluated positions were the same used for both on-campus assessments and LDAC evaluations. The following is a description of each position ranging from the position with the least amount of responsibility; team leader, to position with the most responsibility; battalion commander:

1. Team leaders controlled three other cadets and were responsible for disseminating information and maintaining accountability for their team members and equipment.
2. Squad leaders managed two teams and maintained accountability for their entire squad (nine members) and equipment as well as kept all cadets informed of critical times, locations, and uniforms of upcoming events. Squad leaders reported to their respective platoon sergeants and platoon leaders. The squad is the basic unit for conduction ground tactical field maneuver in ROTC field training and evaluation.
3. Platoon sergeants managed three to four squads and were responsible for the personnel management of all cadets in the platoon. Each platoon sergeant was primarily responsible for advising the platoon leader and training and caring for their subordinates. Platoon sergeants managed accountability of equipment and served as cadet trainers. Platoon sergeants assisted platoon leaders in planning and the tactical employment of their units.

4. Platoon leaders were the senior officers in each platoon and report to the company commander. Platoon leaders were responsible for the training and tactical employment of their platoon and held the position that most closely resembles the jobs cadets would perform once they receive a commission in the Army.

5. The company first sergeant, while not part of the formal chain of command, acted much like the platoon sergeant yet managed two to five platoons, supervises the actions of the platoon sergeants and assists the company commander in leading the company.

6. The company executive officer was second in command of the company and worked with the company first sergeant to ensure the company maintained its personnel, administrative and logistical requirements. In order for the company commander to actively lead the company, the first sergeant and executive officer spent much of their time coordinating with higher level staffs and adjacent units.

7. The company commander was the senior officer in the company and directed the training and tactical employment of all the cadets in the company. The company commander used the first sergeant and executive officer to control the actions of the company and was the immediate supervisor for each platoon leader. In the company, the formal chain of command starts with the company commander and extends down to the platoon leaders, squad leaders, and finally team leaders. The executive officer, first sergeant, and platoon sergeants were

part of the support chain but served critical roles during all stages of planning, preparation, and execution.

The other nine leadership positions were found at the battalion level of leadership and were not part of the formal evaluation process. A battalion is the lowest level in the Army command structure that employs a staff to assist the commander. Cadets could expect to receive training and informal evaluations in the following duty assignments: battalion commander, battalion executive officer, battalion command sergeant major, S1 (personnel officer), S2 (information and security officer), S3 (training and operations officer), S4 (logistics officer), S5 (civil-military affairs officer), and S6 (communications officer). These leadership positions were the same opportunities that each cadet encountered at LDAC in the evaluation process. On-campus leadership scores were recorded on the Leadership Assessment Report and transferred into CCIMS. These scores were the foundation for the PMS Experienced Based Observations portion in the ROTC Accessions Model.

The final component of the overall accessions score, Physical, combined the two recorded Army Physical Fitness Test (APFT) scores, fall and spring semesters, conducted by the on-campus cadre, the LDAC APFT score conducted by the external evaluation team at Joint Base Lewis-McChord, and the athletics score verified and entered by the home station unit commander. Although the physical scores accounted for only 15 percent of the final accessions score, physical fitness and stamina were necessary elements for completing most leadership tasks both on campus and at LDAC.

The APFT is the standard physical fitness test administered to all Army soldiers and ROTC cadets. At LDAC, the APFT Committee administered all physical testing by using the same standards under the same conditions for each cadet. The APFT score was the sum of three

events conducted in order: push-ups, sit-ups and a 2-mile run. In the first event, each cadet was given two minutes to perform as many push-ups as possible (Appendix F). Next, each cadet was given two minutes to perform as many sit-ups as possible (Appendix G). Finally, cadets ran a two-mile road course without physical assistance from other participants (Appendix H). Evaluators rotated after each event to ensure continuous grader standardization. The rest time between the three events was no less than 10 minutes and no more than 20 minutes. The scoring standards based on age for both males and females are provided in Appendix I, and each event was worth 100 points for a maximum APFT score of 300 points (Training Circular 3-22.33, 2010). The failure to achieve 60 points on each of the three events constituted a failing score and possible drop from LDAC. The APFT score based on the 300 point Army scale was divided by three to obtain an APFT score on a 100 point scale and entered into CCIMS upon completion of the event.

At the conclusion of LDAC, all category scores on the ROTC Accessions Model were entered in CCIMS for each cadet with exception of the PMS Accessions OML and the PMS Accessions Comments. These final two categories, covering nine percent of the final accessions score, were completed by each unit commander only after reviewing the on-campus and LDAC scores for each cadet.

Data Analysis

Statistical treatment of the data included the use of the Statistical Package for Social Sciences (SPSS 21). Pearson's Correlation analyses were used to determine the relationship between the dependent variable, final accessions score, and the independent variables; the cumulative GPA score, the leadership score and the physical score. These analyses were used for both the un-weighted and weighted component scores in determining their correlation to the final

accessions score. In conducting each analysis, the independent variable score was removed from the final accessions score to examine the relationship between a combination of two components and the final accessions score. For example, when determining the correlation between GPA and final accessions score, the GPA score was subtracted from the accessions score to yield an accessions value of leadership plus physical. This procedure removed the influence of GPA in the example from the final score, thus establishing construct validity in the analysis. This procedure was repeated for leadership scores and physical scores in both the weighted and un-weighted analyses. Univariate ANOVA analyses were used to determine the relationship between four additional independent variables (age, sex, RECONDO, and Platoon Top Five) and final accessions score.

Chapter 4

Findings

The purpose of this study was to explore the U.S. Army ROTC accessions process and the validity of the accessions scoring system. This chapter includes the analysis of the data collected from the 774 cadets in the Army ROTC 2011 mission set who completed the accessions process during the 2010 fiscal year.

Research Questions

The following research questions were used in the study:

1. To what extent do the weighted cumulative GPA score and the final accessions score correlate?
2. To what extent do the un-weighted cumulative GPA score and the final accessions score correlate?
3. To what extent do the weighted leadership score and the final accessions score correlate?
4. To what extent do the un-weighted leadership score and the final accessions score correlate?
5. To what extent do the weighted physical score and the final accessions score correlate?
6. To what extent do the un-weighted physical score and the final accessions score correlate?
7. What is the relationship between age and the final accessions score?
8. What is the relationship between sex and the final accessions score?
9. What is the relationship between the RECONDO award and the final accessions score?
10. What is the relationship between the Platoon Top Five award and the final accessions score?

Demographic Results

Of the 774 participants, 162 were female (21 percent) and 612 were male (79 percent). The age range as of September 1, 2010 (the end of the evaluation period) was between 19 and 35 (M = 23, SD = 3). Army Regulation 145-1 (2011) indicates that enrollment in the ROTC requires the potential officer to be young enough to earn a commission prior to their 30th birthday, but some of the participants in this study were granted age waivers by the Commanding General, U.S. Army Cadet Command. The mode was 21 years old (29.84 percent) and 56 percent of all participants were either 21 or 22 years old (see Table 1).

Cadets in the Army ROTC program entered by way of multiple backgrounds, thus the age range found in this study. As the demographic makeup of college students has changed in recent years, so has the age profile in the Army ROTC program. Data from the National Center for Educational Statistics (2013) show that between the years 2000 and 2010, college enrollment of students 25 and older rose 42 percent, far exceeding the growth of younger students. While age is a limiting factor for military service, the age range in this study is the result of permissive military officer policies and exceptions to regulations that have opened Army ROTC to older students. The students granted waivers in this study all had prior military experience, which minimized any risk taken by the Department of the Army in accepting these students in the ROTC Program.

Regardless of age, cadets were held to the same performance standards with the exception of the Army Physical Fitness Test (APFT). Each APFT was scored on a scale that adjusted for age and sex in accordance with Army Training Circular 3-22.20 (2010).

Table 1

Participant's Age and Sex

AGE	MALE	FEMALE	TOTAL
19	1	0	1
20	14	4	18
21	171	60	231
22	154	49	203
23	71	17	88
24	45	4	49
25	42	6	48
26	24	5	29
27	23	2	25
28	18	3	21
29	10	4	14
30	12	3	15
31	11	1	12
32	7	1	8
33	2	1	3
34	7	1	8
35	0	1	1
TOTAL	612	162	774

This chapter examines the three major components of the Accessions Model (see Figure 6 in Chapter 3), plus four additional variables that could have an impact on the final accessions score. The first major component is the academic program, which was a result of the student's GPA at the end of the spring school term before attending LDAC as measured by each individual academic institution and based on a 4.00 system. Cumulative GPA was the only subcomponent of the academic program score. The second, leadership, was a combination of on-campus evaluations and LDAC scores. The leadership score combined eight weighted subcomponent scores. The final major component of the final accession score, physical, combined the weighted scores from the three Army Physical Fitness Tests and the athletic subcomponent.

For research questions 1 through 6, the coefficients of determination using the Pearson product-moment correlation (see Table 5) were used to analyze the relationship between the each of the subcomponent scores and the final accessions score. According to Hinders and Craine (2011), correlation coefficients of .80 and higher (r squared of .64 and higher) indicate a strong linear relationship; correlation coefficients ranging from .50 to .79 have a moderate linear relationship; and those below .50 indicate a weak relationship.

Academic Program

The Academic Program of the Accessions Model involved only academic scores and was recorded as a measurement of a cadet's cumulative GPA at the end of the spring school term prior to attending LDAC, as reported by the academic institution. The average GPA of the participants was 3.06 (n =774, SD =.45) with the highest GPA being a 4.00 and the lowest a 2.00. The GPA score used for accessions was the actual GPA divided by four and multiplied by 100 to produce a score on a 100 point scale. The highest GPA score was a 100 and the lowest a

50 (M = 76.54, SD = 11.32). Five participants had a 4.00 GPA. Cadets who failed to achieve a cumulative GPA of 2.00 or better were not permitted to attend LDAC; therefore, there were no GPA scores lower than 50 in this study. Table 2 shows the numerical breakdown of the most common GPA scores by range and the percentage of the sample for each score range. The mode in terms of score range was a GPA score of 75.00 to 79.75 or a GPA of 3.00 to 3.19, which is consistent with the mean GPA score of 76.54 (3.06 GPA).

Research Question #1: To what extent do the weighted cumulative GPA score and the final accessions score correlate? The weighted cumulative GPA score, 40 percent of the accessions score, had a mean of 30.62 and a standard deviation of 4.53. After conducting a Pearson's Correlation with the GPA score removed from the accessions score, the resulting correlation coefficient is a .484 between the two variables and $p < .001$. In this analysis, the correlation is statistically significant. The coefficient of determination (r squared = .234) indicates that approximately 23 percent of the variance in the final accessions score can be accounted for by its linear relationship with the weighted GPA score.

Research Question #2: To what extent do the un-weighted cumulative GPA score and the final accessions score correlate? By the same process used to analyze the weighted GPA score, the un-weighted GPA score (M = 76.54, SD = 11.32) has a resulting correlation coefficient of .434, $p < .001$ and r squared of .188. In this statistically significant relationship, approximately 19 percent of the variance in the un-weighted final accessions score can be accounted for by its linear relationship with the un-weighted GPA score.

Table 2

GPA Scores

Score Range	GPA Range	Number of Scores	Percentage of Sample
50.00 - 54.75	2.00 - 2.19	21	2.71
55.00 - 59.75	2.20 - 2.39	38	4.91
60.00 - 64.75	2.40 - 2.59	63	8.14
65.00 - 69.75	2.60 - 2.79	113	14.60
70.00 - 74.75	2.80 - 2.99	99	12.79
75.00 - 79.75	3.00 - 3.19	126	16.28
80.00 - 84.75	3.20 - 3.39	119	15.37
85.00 - 89.75	3.40 - 3.59	97	12.53
90.00 - 94.75	3.60 - 3.79	51	6.59
95.00 - 100	3.80 - 4.00	47	6.07

Leadership

The leadership score was a combination of following eight weighted measurements listed in the ROTC Accessions Model (see Figure 6 in Chapter 3) and, when combined, accounted for 45 percent of the overall accessions score:

1. LDAC performance score (6.75 percent)
2. LDAC platoon tactical officer evaluation score (11.25 percent)
3. LDAC land navigation score (4.50 percent)
4. Professor of Military Science MS III CER order of merit list (6.75 percent)
5. Professor of Military Science accessions order of merit list (4.50 percent)
6. Professor of Military Science accessions potential comments score (4.50 percent)
7. Cadet training and extracurricular activities score (4.50 percent)
8. Language training and cultural awareness score (2.25 percent)

The LDAC performance score was a cadet's numeric rating awarded as the result individual performance during six different leadership opportunities using an Excellence/Satisfactory/Needs Improvement (E/S/N) scale. Each cadet was also evaluated using the same scale on his or her performance on each of the 17 leader attributes and core leader competencies. In the E/S/N scale, an excellence rating was worth 100 points, the satisfactory rating was worth 85 points and the needs improvement rating was worth 70 points. No other point values were awarded. The six leadership opportunities and the 17 leader attributes and core leader competencies were weighted equally, so the total leader performance score was the average all 23 evaluated categories (see Figure 7). Since there was no performance evaluation lower than needs improvement, 70 points was the lowest possible total score for the LDAC

performance score. After converting the raw total score to a 100 point scale, the highest score was a 100 and the lowest was an 83.04 (M = 88.52, SD = 3.28). Thirty-one participants (four percent) scored below the satisfactory mark of 85 points, while only one participant had a score of 100.

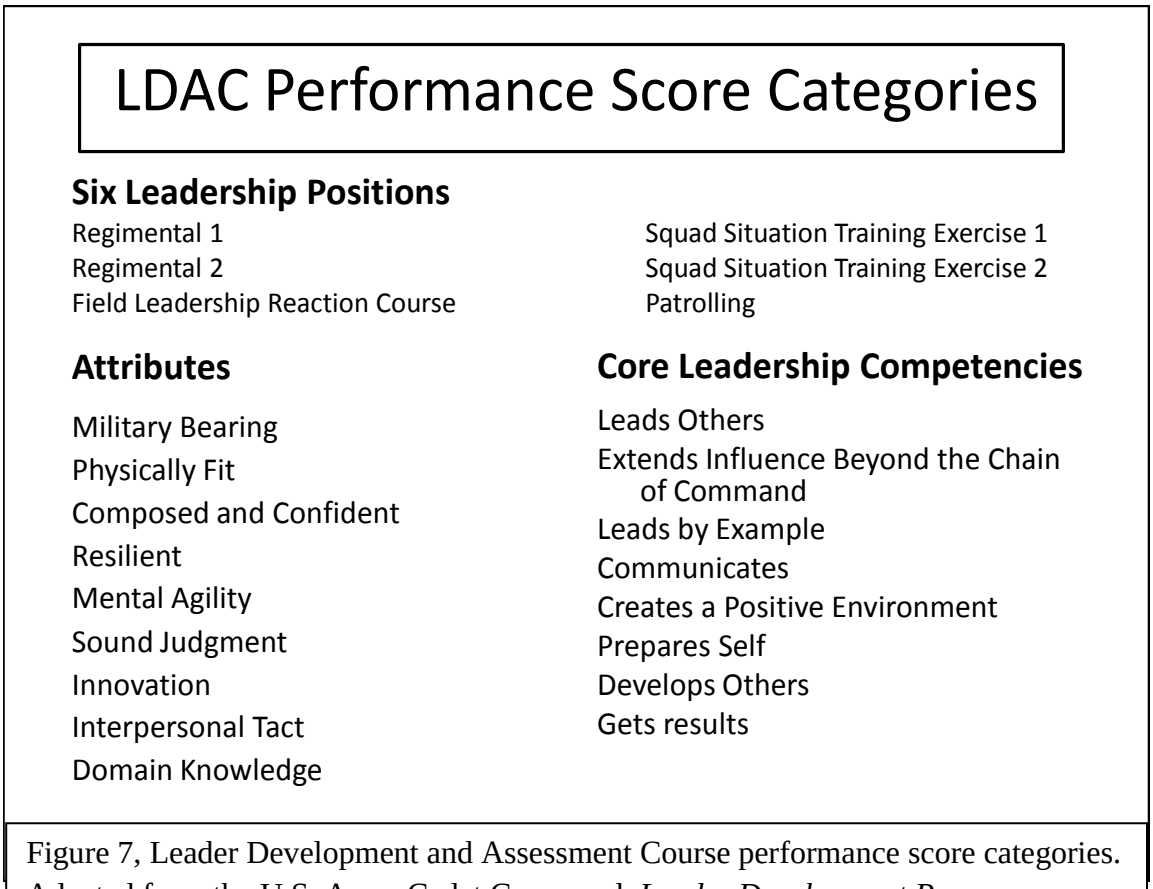


Figure 7, Leader Development and Assessment Course performance score categories. Adapted from the U.S. Army Cadet Command, *Leader Development Program Handbook*, 2009.

The LDAC platoon tactical officer evaluation score reflected the assessment of each cadet's performance during the LDAC in the Excellence/Satisfactory/Needs Improvement format as determined by an active Army major or lieutenant colonel evaluator. Like the LDAC performance score, each cadet earned one of three scores; 100, 85 or 70 points (M = 85.47, SD = 7.46). Eighty-two participants (10.5 percent) were assessed as needing improvement while 108

participants (14 percent) received scores of 100. Of the 82 cadets receiving a needs improvement score, 35 participants scored below 70 points on land navigation and 27 participants scored below 70 percent on the LDAC APFT.

The LDAC land navigation score combined the written map reading test (20 percent), the day land navigation score (50 percent) and the night land navigation score (30 percent). The highest score was a 100 and the lowest was 10 (M = 86.36, SD = 13.57). Forty-four participants scored 100 points for land navigation while 80 participants (10.3 percent) failed to meet the minimum of 70 points on the three part test. Cadets were given multiple attempts to pass land navigation as a requirement for graduation, but only the first attempt score was used for accessions. A passing land navigation score was one of the two requirements for graduation; the other being the APFT.

The Professor of Military Science MS III (Cadet Evaluation Report) CER order of merit list was the ordinal ranking of a cadet compared to other cadet's in that school's program as determined by the commanding officer prior to LDAC. This ranking by each program's commanding officer was a subjective score based on a wide range of observations. The two components of the Accessions Model that had the most bearing on this analysis were the leadership and physical fitness categories. Academic achievement could be a factor usually when a cadet struggled academically. The CER order of merit list scores ranged from a 100 to zero (M = 54.32, SD = 28.52).

The Professor of Military Science accessions order of merit list was the ordinal ranking of a cadet compared to other cadet's in that school's program as determined by the commanding officer after viewing the results of LDAC and additional summer training. This subjective score could be significantly different from MS III CER order of merit list score especially if a marginal

cadet at home station scored higher than expected at LDAC on the six scored areas found in the Accessions Model; LDAC performance, LDAC platoon tactical officer evaluation, LDAC land navigation, LDAC APFT, LDAC platoon top five and RECONDO. These scored areas at LDAC accounted for 31.95 percent of the accessions score, plus an additional 1.5 points added to the final accessions score if a cadet received both the Platoon Top Five and RECONDO awards. The accessions order of merit list scores ranged from a 100 to a zero (M = 51.37, SD = 30.04).

The Professor of Military Science accessions potential comments score was based on a four level subjective rating. An outstanding rating resulted in a score of 100, excellent scored a 90, satisfactory scored an 80, and needs improvement scored a 70. Therefore, the highest score was a 100 and the lowest a 70 (M = 84.83, SD = 8.08).

The cadet training and extracurricular activities score was a combination of Army courses attended in addition to LDAC, work experience while in college, and extracurricular activities. Cadets were often afforded the opportunity to attend Army specialty courses like Airborne or Air Assault schools in the summer while part of an ROTC program. Civilian work experience and extra-curricular activities were equally scored to Army courses for this category. Cadets were awarded five points for each entry with a maximum of 285 points. The score was converted to a 100 point scale, and the highest score was a 61.25; the lowest a zero (M= 21.07, SD = 12.05).

The language training and cultural awareness score was calculated by awarding points for language classes completed and for years of participation in a study abroad program. Each course was worth three points and each year in a study abroad program was worth ten. The maximum number of points for this category was 86. When measured on a 100 point system, the highest score was a 60.28 and the lowest a zero (M = 3.66, SD = 6.86).

Research Question #3: To what extent do the weighted leadership score and the final accessions score correlate? The weighted leadership score, 45 percent of the accessions score, had a mean of 30.3 and a standard deviation of 4.3. After conducting a Pearson's Correlation, the resulting correlation coefficient is a .620 between the two variables and the $p < .001$. In this analysis, the correlation is statistically significant. The coefficient of determination (r squared = .384) indicates that approximately 38 percent of the variance in the final accessions score can be accounted for by its linear relationship with the weighted leadership score.

Research Question #4: To what extent does the un-weighted leadership score and the final accessions score correlate? The un-weighted leadership score combined the eight weighted leadership component scores and yielded a high score of 99.81 and a low of 47.16 ($M = 75.75$, $SD = 10.75$). In the same process used to analyze the relationship between the weighted leadership score and the final accessions score, the un-weighted leadership score has a resulting correlation coefficient of .667, a $p < .001$ and r squared of .445. In this statistically significant relationship, approximately 45 percent of the variance in the un-weighted final accessions score can be accounted for by its linear relationship with the un-weighted leadership score.

Table 3

Leadership Scores

Category (weight)	Unweighted Mean Score	Standard Deviation	Weighted Mean Score
LDAC Performance (6.75)	88.52	3.28	5.98
Platoon Tactical Officer Evaluation (11.25)	85.47	7.46	9.62
LDAC Land Navigation (4.50)	86.36	13.57	3.89
PMS MS III CER OML (6.75)	54.32	28.52	3.66
PMS Accessions OML (4.50)	51.37	30.04	2.31
PMS Accessions Potential (4.50)	84.83	8.08	3.82
Training and Extra-curricular Activities (4.50)	21.07	12.05	0.95
Language Training and Cultural Awareness (4.50)	3.66	6.86	0.08

Physical

The physical fitness score was a combination of four different weighted measurements with the Army Physical Fitness Test (APFT) representing 90 percent of the physical fitness score. When combined, the four measurements listed below accounted for 15 percent of the final accessions score:

1. The APFT score during the fall term of the MS III year (1.69 percent)
2. The APFT score during the spring term of the MS III year (2.36 percent)
3. The APFT score taken at LDAC (9.45 percent)
4. The athletics score (1.50 percent)

The athletics score was based on a maximum of nine entries worth five points each for a total of 45 points. Cadets earned athletics points for participation on varsity, intramural and community teams. When measured on the 100 point system, the high score was a 100 and the low was a zero (M = 26.74, SD = 27.78).

All three of the APFT scores used in the accessions score resulted in a high score of 100 and 18 cadets (2.4 percent) scored 100 points on all three tests. The low score for the fall term test was a 49 (M = 86.97, SD = 9.39), the low for the spring term test was a 58.33 (M = 88.96, SD = 8.58), and the low for the LDAC APFT was a 61.33 (M = 85.02, SD = 9.06) (see Table 4).

The minimum standard to receive a passing score on the APFT was 180 points on the 300 point scale with a minimum of 60 points in each of the three events; push-ups, sit-ups and 2-mile run. For the Accessions Model, the total APFT score was divided by three to reach a score based on a 100 point scale. When converted to the 100 point scale for accessions, the minimum accepted score at LDAC was 60 points, but on-campus scores could have been lower than 60 points. At LDAC, APFT scores below the minimum passing standard resulted in the cadet being

dropped from the course and disenrolled from the ROTC program. Cadets were provided two attempts to pass the APFT at LDAC, but second attempt passing scores resulted in a maximum score of 60 for the category regardless of the cadet's performance on the second attempt. Cadets who failed to pass the APFT at LDAC were dropped from the course and were not part of this study.

Table 4
Army Physical Fitness Test Scores

	High Score	**Low Score**	**Mean**	**Standard Deviation**
Test #1 (Fall)	100	49	86.97	9.39
Test #2 (Spring)	100	58.33	88.96	8.58
Test #3 (LDAC)	100	61.33	85.02	9.06

Research Question #5: To what extent does the weighted physical score and the final accessions score correlate? The weighted physical score (15 percent of the accessions score) had a mean of 12 and a standard deviation of 1.26. After conducting a Pearson's Correlation, the resulting correlation coefficient is a .432 between the two variables and the $p < .001$. In this analysis, the correlation is statistically significant. The coefficient of determination (r squared = .187) indicates that approximately 19 percent of the variance in the final accessions score can be accounted for by its linear relationship with the weighted physical score.

Research Question #6: To what extent does the un-weighted physical score and the final accessions score correlate? The un-weighted physical score combined the four weighted physical component scores and yielded a high score of 100 and a low of 59.64 (M = 80.83, SD = 8.43). By the same process used to analyze the weighted physical score, the un-weighted physical score had a resulting correlation coefficient of .427, $p < .001$ and r squared of .182. In this statistically significant relationship, approximately 18 percent of the variance in the un-weighted final accessions score can be accounted for by its linear relationship with the un-weighted physical score.

Table 5 shows the relationship between the component scores and the final accessions score. In both the weight and un-weighted analyses the relationship of all three to the final accessions score is significant.

Table 5

Component Scores (weighted and un-weighted)

		GPA	**Leadership**	**Physical**
Weighted correlation coefficient	R	0.484	0.620	0.432
Weighted coefficient of determination	R Square	0.234	0.384	0.187
Un-weighted correlation coefficient	R	0.434	0.667	0.427
Un-weighted coefficient of determination	R Square	0.188	0.445	0.182

In addition to analyzing the major components of the final accessions score, this study also examined additional data; age, sex, the RECONDO award and the Platoon Top Five award results as variables that could demonstrate a relationship to the final accessions score.

Research Question #7: What is the relationship between age and the final accessions score? Table 6 shows the three age groups used to analyze this research question.

Table 6

Age (recoded)

	Group 1	**Group 2**	**Group 3**
Age Range	19 - 22	23 - 29	30 - 35
Number of participants	453	289	32

By conducting univariate ANOVA, Group 1 (19-22 years old), the youngest group of participants had a mean final accessions score of 73.16 (SD = 8.02, n = 453), Group 2 (23-29 years old), had a mean of 72.68 (SD = 8.98, n= 289), and Group 3 (30-35 years old), had a mean of 75.07 (SD = 9.23, n = 32). In this analysis each age group's mean score shows that all three groups were within two points of the final accessions score mean (M = 73.01) and within 3 points of one another. The p value of .292 suggest that the results were not significant and a partial eta squared of .003 indicates that because of the very small effect size there is little strength of the relationship between age and final accessions score.

Research Question #8: What is the relationship between sex and the final accessions score? As in the case with age, the difference in sex did not indicate a significant relationship with the final

accessions score (p = .171 and a partial eta squared of .002). Female participants (n = 162) had a mean final accessions score of 72.25, while the male participants (n = 612) had a mean score of (73.27). For both age and sex, the observed power (.269 and .278 respectively) indicates that this statistic is inadequate to show a relationship between either of the independent variables and the final accessions score.

Platoon Top Five and RECONDO Awards

Two additional variables were examined as part of the final accessions score; the LDAC platoon top-five and RECONDO awards. The platoon top five was awarded to those cadets whose overall scores ranked them in the top five of the cadets in their platoon at LDAC. The platoon top-five award added one point to the final accessions score. Each platoon had between 45 and 50 members, so statistically; about 11 percent of the overall cadet population that attended LDAC (more than 6000 total cadets) received the platoon top-five award. Of the 774 participants in this study, the platoon top five was awarded to 64 cadets (8.2 percent). Eighty-one of the participants received the RECONDO award (10.5 percent). Twenty-nine cadets (3.7 percent) earned both the platoon top five and the RECONDO awards.

The designation of RECONDO and the accessions credit of one half of a point added to the final accessions score was awarded to cadets that met the following criteria at LDAC:

a. Executed all confidence events presented on the day of execution to standard. These events included all **c**limbing and rappelling training, the Slide for Life zip-line, the Log Walk/Rope Drop, and the obstacle courses.

b. Achieved an APFT score of 270 or above without retest, with a minimum of 90 points in each of the three events (push-ups, sit-ups, and 2-mile run).

c. Achieved a score of 80 percent or higher on each of the written, day and night land navigation proficiency tests, without retest.

d. Completed the following first aid tasks to standard: evaluate a casualty, manage the airway of a casualty, administer CPR, control bleeding, and treat a chest wound.

e. Achieved satisfactory or higher individual leader performance ratings on both squad situational training exercises (STX).

f. Successfully completed LDAC without a performance waiver. Medical waivers were acceptable.

g. Received satisfactory or above summary ratings for all 17 scored attributes and core competencies and satisfactory ratings for each of the nine Army Values, as reported on the Cadet Command Form 67-9, Cadet Evaluation Report.

h. Maintained height/weight standards as prescribed by Army Regulation 600-9.

Research Question #9: What is the relationship between the RECONDO award and the final accessions score? The mean final accessions score of those earning RECONDO was 81.37, while the mean score of those not earning RECONDO was 74.46. By analyzing the top ten percent final accessions scores of the population in this study, only 36 percent of those earned the RECONDO award, but no cadet in the bottom 18.1 percent of ordinal ranking of final accessions scores (numerical score of 67.22 and below) earned the RECONDO award. A p value $< .001$ and a partial eta squared of .113 indicate that there is strength in the relationship between the RECONDO award and the final accessions score.

Research Question #10: What is the relationship between the Platoon Top Five award and the final accessions score? The mean final accessions score of those earning Platoon Top Five was

84.15, while the mean score of those not earning the award was 72.03. Within the top ten percent of final accessions scores in this study, only about half (49 percent) of those earned the Platoon Top Five award. No cadet in the bottom 38.7 percent of final accessions scores (numerical scores below 72.76) earned the Platoon Top Five award. Like the RECONDO award analysis, $p < .001$ and a partial eta squared of .150 showed strength in the relationship between platoon top-five and the final accessions score.

Chapter 5

Summary, Conclusions, and Recommendations

The purpose of this study was to explore the U.S. Army ROTC accessions process and the validity of the accessions scoring system. To achieve this purpose, this study explored the strength of each of the three component scores (academic program, leadership program, and physical scores) in evaluating the overall leadership potential of a cadet preparing to enter the Army as a commissioned officer.

Research Questions

The following research questions were used in the study:

1. To what extent do the weighted cumulative GPA score and the final accessions score correlate?
2. To what extent do the un-weighted cumulative GPA score and the final accessions score correlate?
3. To what extent do the weighted leadership score and the final accessions score correlate?
4. To what extent do the un-weighted leadership score and the final accessions score correlate?
5. To what extent do the weighted physical score and the final accessions score correlate?
6. To what extent do the un-weighted physical score and the final accessions score correlate?
7. What is the relationship between age and the final accessions score?
8. What is the relationship between sex and the final accessions score?
9. What is the relationship between the RECONDO award and the final accessions score?
10. What is the relationship between the Platoon Top Five award and the final accessions score?

Summary

Selecting and developing potential leaders for the U.S. Army is a task shared by several agencies within the service. Since 1916, the ROTC program has developed and commissioned more officers than any other agency in the Army. Currently, Army leaders in the ROTC Program use an evaluation system known as Accessions to score and rank order each individual cadet in the program on leadership potential prior to selection as a commissioned officer. The accessions process combines the weighted measurements analyzed in Chapter 4 to reach the final accessions score used to determine active duty or reserve component status, branch, duty location, and even advanced civil schooling as applicable. This chapter includes a discussion of the findings, conclusions, and recommendations for this study.

The participants in this study were predominantly male (79 percent) and ranged in age from 19 to 35 at the time the final accessions scores were calculated. The participants were from colleges and universities in the Southeast United States and Puerto Rico (see Appendix B) and all were on contract to serve in the Army upon graduation and commissioning. All of the participants were medically examined to ensure eligibility for military service. This study examined the accessions process from both a weighted analysis explained by the Accessions Model and a separate analysis of the three components calculated at the same weight.

Conclusions

Analysis indicated that by using the accessions process both the weighted and un-weighted GPA score had a significant relationship with the final accessions score. The Leadership Requirements Model specifically addresses intellectual capacity as an attribute necessary to meet the standards expected of all leaders. Intellectual capacity translates best to cumulative GPA in the Accessions Model; although, it also encompasses other factors by Army

definition. Intellectual capacity combines mental agility, sound judgment, innovation, interpersonal tact and domain knowledge (FM 6-22, 2006).

FM 22-100 (1983) introduced the Army's Be-Know-Do concept that also named intellectual capacity as a key attribute in leading soldiers. After a year of fighting in the Middle East during the Iraqi Freedom Campaign, the Secretary of the Army stated that the leaders in combat needed education that allowed them to handle the uncertainties of modern conflict (Brownlee & Schoomaker, 2004). Snider (2005) recognized that an important challenge for military officers is the education needed to understand the science of applying doctrine, policy and law while exercising the art of leading soldiers in uncertain situations. Leaders must be able to process information quickly and make decisions without perfect knowledge. Snider (2005) also said these obligations cannot be phased into an officer's list of responsibilities, but rather must become part of the officer's service requirements from the time of taking the oath of commissioning. On the modern battlefield, Army leaders will make decisions that routinely cross historical authority, and the effects of their decisions are felt instantaneously. Furthermore, there is no time to learn from mistakes on the modern battlefield (Harai & Summers, 2005).

Research indicates that future military leaders will need more preparation and experience. Specifically, leaders will need five key intellectual skills to confront new challenges in the contemporary operating environment; pattern recognition, the ability to gain situational understanding, the ability to build mental simulation, critical thinking, and adaptability (Leonard, et. al., 2006). Research suggests that intelligence is a leadership component sought after by all types of organizations, but little research is available that shows a strong relationship between undergraduate GPA and professional success after college.

Analysis also indicated that leadership scores had a significant relationship with the final accessions score. Of the three major components in the Accessions Model, leadership had the strongest relationship with the final accessions score in both the weighted and un-weighted analyses. From the Army definition leader, five characteristics explain the ideal leader; strong intellect, physical presence, professional competence, high moral character and serves as a role model (ADRP 6-22, 2012). Within these characteristics, all five are found in the Leader Program of the Accessions Model.

From a corporate business standpoint, Cain (1997) and Collins (2001) found that great leaders influence people and inspire them to make businesses more productive. While factors of leadership cannot be directly measured in academic achievement or physical performance, intelligence and physical fitness cannot be discounted as having no bearing on a leader's ability to influence people in the military. For example, Coram (2002) describes the "OODA" loop cycle that greatly influenced American fighter pilots as an intellectual process, rather than an act of physical leadership. In other examples, Colonel Dan Allyn, in the Iraqi Freedom Campaign, and Joshua Chamberlain, in the U.S. Civil War, influenced their units in combat by their physical presence on the battlefield and by making wise decisions. Both men found themselves in unfamiliar situations but used their strong intellectual skills to dictate tactical victories. (Gordon & Trainor, 2006), (Collins, 2009). Given these examples, it is unrealistic to minimize the importance of academic achievement in leader development or the evaluation of potential leaders. This study found that intellectual capacity and leadership skills are both necessary components of evaluating future commissioned officers in the Army.

Under the Leadership Program of the Accessions Model, there were several subcomponent scores that may have skewed the final accessions score. First, the land navigation

evaluation was designed to measure each cadet's mental aptitude and physical fitness on an individual course during any weather and light conditions. While all cadets were evaluated on the same land navigation course, some operated under more favorable conditions than others over the course of the summer. Average land navigation scores were higher for the later regiments as the weather improved. Also, the leadership score statistics can be misleading for the subcategory Language Training and Cultural Awareness, since 455 (58.8 percent) of the participants scored zero points. The same could be true for the Training and Extracurricular Activities subcategory with 270 participants (34.9 percent) scoring zero points.

The physical score was found to have a significant relationship with the final accessions score but not as strong a relationship as the leadership score. It is best compared with the relationship of the GPA score with the final accessions score. The measurements used to determine the physical score are primarily limited to the three event physical test and not as heavily weighted as the other major components. Theoretically, an average score in this category did not hurt the final accessions score as would an average score in either GPA score or the leadership score. Furthermore, the leadership score overlapped the physical score by addressing physical performance in six of its eight subcomponent scores.

This study found that the scoring process associated with Accessions is an adequate measure of a cadet's performance in Army ROTC under the construct of the Accessions Model. This study also found that the components of the Accessions Model are congruent with the Leadership Requirements Model and the Officer Evaluation System. Contemporary statements from national civilian and military leaders, indicate that that Army needs officers who can make sound decisions in confusing situations and operate with strong moral character on the

decentralized battlefield. The Accessions Model addresses these concerns through both the on-campus and LDAC evaluations.

Recommendations

More analysis is needed in comparing the un-weighted scores to the weighted scores. A future longitudinal study may indicate that an officer commissioned through the ROTC Program may experience a strong relationship between a variable like cumulative GPA as a cadet and leadership success as an officer over the course of a military career. There could also be a negligible relationship between the two, which may lead to the Army placing less emphasis on one or more components of the final accessions score. By examining GPA and physical scores in this study, there was a considerable difference in the weighted relationship and the un-weighted relationships with the final accessions score due to weighting. This study found no empirical evidence to suggest that the weighting of the major components of the final accessions score produced a desired effect.

More analysis is need in determining the importance of the physical score as a separate category in the accessions process. This analysis in study indicates that the physical evaluation could become part of the leadership score and measure more than just the three event APFT, which has been part of the Army culture since 1980 (TC 3-22.20, 2010).

More analysis is needed on the RECONDO and Platoon TOP 5 awards as factors in accessions score. These two awards appear to be afterthoughts to the Accessions Model. Analyses indicate that neither of the measures served as predictors of final accessions score but indicate that those cadets earning either or both of the awards have a strong relationship with higher average scores.

More analysis is needed to determine if age is a factor in determining the final accessions score. In this study, the age range of 30 to 35 years old was under represented and, with the small number of samples, may take years to gather enough data to fully research. The same is true for sex as females only accounted for 21 percent of the population in this study.

This study examined only accessions data from one of the eight brigades from U.S. Army Cadet Command. A future study should be conducted again using all the cadets from across Cadet Command for a given year. A similar study with more participants (up to 7000 available per year) may produce results to help better analyze the effects of age and sex on accessions scores.

This study should also be conducted as a multi-year examination of the accessions process to determine trends and reduce the effects of variables like weather at LDAC in any given year or the availability of training resources that were not considered. With a pending shift in training location for year group 2014 and 2015 officers, this study should also be conducted again following the Army transitions to the future new home of LDAC, Fort Knox, Kentucky.

This study should be expanded to consider the weighting of each of the independent variables in a way to statistically create a model where each of the three component scores equally predicts the final accessions score. Along with experiments of altered weighting, studies should be conducted to determine the validity of incorporating the RECONDO and the Platoon Top 5 awards into the leadership assessment, rather than added to the accessions core total.

References

ASVAB, Official Site of, (2013). Retrieved on April 6, 2013 from http://official-asvab.com

Adaptive Leadership, MSL 401 (Custom edition for BOLC 1: Army ROTC). (2009). New York: Pearson Custom Publishing.

Applied Team Leadership, MSL 302 (Custom edition for BOLC 1: Army ROTC). (2009). New York: Pearson Custom Publishing.

Army Posture Statement. (2010). Office of the Director of the Army Staff Executive Strategy Group, Washington, D.C. Retrieved on March 3, 2012 from https://secureweb2.hqda.pentagon.mil/vdas_armyposturestatement/2010

Avery, G.C. (2004). *Understanding leadership*. London: Sage Publications.

Army Training and Leader Development Panel (ATLDP). (2003). *Officer study report to the Army*. Retrieved on July 24, 2012 from http://handle.dtic.mil/100.2ADA415810

Barker, R.A. (2002). *On the nature of leadership*. Lanham, MD: University Press of America.

Barrett, A., & Beeson, J. (2002). *Developing business leaders for 2010* (Research Report R-1314-02-RR). Retrieved from the conference board http://www.conference-board.org.

Bartone, P., Snook, S., & Trueman, T. (2002). *Cognitive and personality predictors of leader performance in West Point cadets*. Military Psychology, *14*(4), 321–338.

Bass, B. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

Bass, B.M., & Riggio, R.E. (2006). *Transformational leadership*. 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Beebe, S.A., Mottet, T.P., & Roach, K.D. (2004). *Training development: enhanced communication and leadership skills*. Boston: Pearson Education, Inc.

Bennis, W. (2009). *On becoming a leader*. New York: Perseus Publishing.

Brownlee, L., & Schoomaker, P. J. (2004). Serving a nation at war: a campaign quality army with joint and expeditionary capabilities. *Parameters, U.S. Army War College Quarterly, 34*(2), 5-23.

Burke, C., Stagl, K., Clein, C., Goodwin, G., Salias, E., & Halpin, S.(2006). What type of leadership behaviors are functional in teams? A meta-analysis. *The leadership quarterly*, 17, 288-307.

Cain, H. (1997). *Leadership is common sense*. New York: Van Nostrand Reinhold.

Cavallo, K. (2012). *Emotional competence and leadership excellence at Johnson & Johnson: The emotional intelligence and leadership study*. Retrieved on June 6, 2012 from http://www.eiconsortium.org/pdf/jj_ei_study.pdf

Campbell, M., & Smith, R. (2012). *High-potential talent: A view from inside the leadership pipeline*. Center for Creative Leadership. Retrieved on June 7, 2012 from http://www.ccl.org/leadership/pdf/research/highPotentialTalent.pdf

Charan, R., Drodder, S., & Noel, J. (2001). *The leadership pipeline: How to build the leadership powered company.* San Francisco: Jossey-Bass.

Charbonneau, D., Barling, J., & Kelloway, E. (2001). Transformational leadership and sports performance: the mediating roles of intrinsic motivation. *Journal of Applied Psychology*, 31(7), 1521-1534.

Christeson, W., Taggart, A., & Messner-Zidell, S. (2009). *Ready, willing and unable to serve.* A report by Mission: Readiness. Washington, D.C.

Collins, J.C. (2001). *Good to great, why some companies make the leap and others don't*. New York: Harper Collins Publishers, Inc.

Collins, E. (2009). In the shadow of a mighty presence, a family legacy. *Soldiers, the official U.S. Army magazine.* vol 64(8), 36-39.

Conger, J., & Benjamin, B. (1999). *Building leaders*. San Francisco, Josse-Bass

Conger, J., & Fulmer, R. (2003). Developing your leadership pipeline. *Harvard Business Review 81*(12), 76-84.

Coram, R. (2002). *Boyd: the fighter pilot who changed the art of war.* New York: Little Brown and Company.

Daniels, A.C., & Daniels, J.E. (2007). *Measure of a leader*. New York: McGraw-Hill.

Davis, L.D. (2011). *The millennial generation: Developing leaders for the future security environment* [Monograph]. Retrieved from www.strategicstudiesinstitute.army.mil

Dempsey, M. (2010) An Army white paper; the profession of arms. Center for the Army Profession and Ethic, Combined Arms Center, U.S. Army Training and Doctrine Command. Retrieved on July 25, 2012 from http://cape.army.mil/repository/ProArms/ ProfessionWhite%20Paper%208%20Dec%2010.pdf

Dempsey, M. (2011), Leader development. *Army magazine*, Vol 61, No. 2.

Department of the Army. (1994). *Army Regulation 135-100, appointment of commissioned officers and warrant officers in the Army*. Washington, DC.

Department of the Army. (2011). *Army Regulation 145–1, Senior reserve officers' training corps program: organization, administration and training*. Washington, DC.

Department of the Army. (2007). *Army Regulation 350–1, Army training and leader development*. Washington, DC.

Department of the Army. (2001). *Army Regulation 350–51, United States Army officer candidate school*. Washington, DC.

Department of the Army. (2007). *Army Regulation 600-100, Army leadership.* Washington, DC.

Department of the Army. (2006*). Army Regulation 614-100, Officer assignment policies, details, and transfers.* Washington, DC.

Department of the Army. (2012). *Army Regulation 623-3, Army evaluation reporting system.* Washington, DC.

Department of the Army. (2010). *Cadet Command Circular 601-10-1, reserve officers' training corps accessions, fiscal year 2010.* Headquarters, U.S. Army Cadet Command, Fort Monroe, VA.

Department of the Army. (2011). *Cadet Command Circular 601-11-1, reserve officers' training corps accessions, fiscal year 2011.* Headquarters, U.S. Army Cadet Command, Fort Knox, KY.

Department of the Army. (2010). *Cadet Command Circular 145-05, reserve officers' training corps 2010 leader development and assessment course (LDAC) – warrior forge (WF) preparation.* Headquarters, U.S. Army Cadet Command, Fort Monroe, VA.

Department of the Army. (2012), *Cadet Command Regulation 145-2, JROTC program (a citizenship and leadership development program), organization, administration, operations, training and support*. Fort Knox, KY.

Department of the Army. (2006), *Cadet Command Regulation 145-3, Reserve officers' training corps pre-commissioning training and leader development, on-campus training*. Fort Monroe, VA.

Department of the Army. (2006), *Cadet Command Regulation 145-3-1, Reserve officers' training corps pre-commissioning training and leader development, off-campus training*. Fort Monroe, VA.

Department of the Army. (2008). *Field Manual No. 3-21.75. The warrior ethos and soldier combat skills*. Washington, DC.

Department of the Army. (2006). *Field Manual Number 6-22, Army leadership*. Washington, D.C.

Department of the Army. (1990). *Field Manual Number 22-100, Army leadership; be, know, do.* Washington, DC.

Department of the Army. (1998). *Field Manual Number 21-10, physical fitness training*. Washington, DC.

Department of the Army. (1990). *Field Manual Number 22-100, Military leadership*. Washington, DC.

Department of the Army. (1983). *Field Manual Number 22-100, Military leadership*. Washington, DC.

Department of the Army. (2009). *Headquarters, U. S. Army Training and Doctrine Command Pamphlet 525-3-0, the U.S. Army capstone concept*. Fort Monroe, VA.

Department of the Army. (2010). *Headquarters, United States Army Training and Doctrine Command Regulation 350-18, the Army school system*. Fort Monroe, VA.

Department of the Army. (2012). *Headquarters, United States Army Training and Doctrine Command Regulation 350-36, basic officer leader training policies and administration*. Fort Eustis, VA.

Department of the Army. (2009). *Leadership development program (LDP) handbook*. Washington, DC.

Department of the Army. (1948). *Pamphlet No. 22-1, Leadership.* Retrieved May 28, 2013 from *http://cgsc.cdmhost.com/utils/getfile/collection/p4013coll9/id/907/filename/908.pdf*

Department of the Army. (2012). *Pamphlet No. 623-3, Evaluation reporting system.* Washington, D.C.

Department of the Army. (2010). *Training Circular No. 3-22.20, Army physical readiness training.* Washington, D.C.

Department of Defense. (2010). *Joint Publication 1-02, department of defense dictionary of military and associated terms*. Washington, D.C.

Department of Defense. (1999). Office of the Assistant Secretary of Defense for Public Affairs news release 146-99. *Cold war recognition certificate approval*.

Edmonds, P. B. (2011). Building winning teams in the 21st century operating environment. Strategic Research Paper, U.S. Army War College.

Fallesen, J., Keller-Glaze, H., & Curnow, C. (2011). *A selective review of leadership studies in the U.S. Army*. Military Psychology, 23(5):462–478.

Fitzgerald, C., & Kirby, L.K. (1997). *Developing leaders*. Palo Alto, CA: Davies-Black Publishing.

Fleishman, E. A., Mumford, M. D., Zaccaro, S. J., Levin, K. Y., Korotkin, A. L., & Hein, M.B. (1991). Taxonomic efforts in the description of leader behavior: A synthesis and functional interpretation. *Leadership Quarterly, 2*, 245–287.

Geyer, J., & Hall, K. (Producers), (2006). [video]. *Buffett and gates go back to school*. USA: Public Broadcasting Service.

Gilroy, C. (2009). *Prepared statement to the House Armed Services Committee hearing, "Recruiting, retention and end strength overview".* Retrieved on July 10, 2012 from: http://www.gpo.gov/fdsys/pkg/CHRG-111hhrg50088/pdf/CHRG-111hhrg50088.pdf

Goleman, Daniel. (1998). What Makes a Leader? *Harvard Business Review*, *76*(6), 93-102.

Gordon, M. R., & Trainor, B. E. (2006). *Cobra II, the inside story of the invasion and occupation of Iraq*. New York, Pantheon Books.

Haslam, S.A., Reicher, S.D., & Platow, M.J. (2011). The new psychology of leadership; identity, influence and power. New York: Psychology Press.

Hinders, D. & Craine, W. (2011). *5 steps to a 5, AP statistics, 2012-2013*. New York: The McGraw-Hill Companies, Inc.

Hirai, J., & Summers, K. (2005). Leader development and education: Growing leaders now for the future. *Military Review, 85*(3), 86-95.

Hirst, G., & Mann, L. (2004). A model of R&D leadership and team communications: the relationship with project performance. *R&D Management*. 34(2), 147-160.

Judge, T., Piccolo, R., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*. 89(1), 36-51.

Judge, T., & Piccolo, R. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of Applied Psychology*. 89(5), 755-768.

Kennedy, G. C., & Neilson, K. (2002). *Military education past, present, and future*. Westport, Connecticut: Praeger Publishers.

King, B. (2008). *Victory starts here, a 35-year history of the U.S. Army training and doctrine command.* Combat Studies Institute Press. U.S. Army Combined Arms Center. Fort Leavenworth, Kansas.

King, R.T., (2008). *Army Transformation: A Cultural Change*. U.S. Army War College. Retrieved on March 29, 2013 from http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA478312

Kouzes, J., & Posner, B. (1993), *Credibility*. San Francisco, Josse-Bass.

Krathwohl, D. (1998), *Methods of educational and social science research, an integrated approach, 2nd ed*. New York, Addison-Wesley Educational Publishers, Inc..

Lackey, J., Kamena, G., & Lackey, R.B. (2009). Is the Army training system millennial friendly? *Fires Magazine*. U.S. Army Field Artillery Association.

Leonard, H., Polich, J., Peterson, J., Sortor, R., & Moore, S. (2006). *Something old, something new: Army leader development in a dynamic environment*. RAND Corporation.

London, Manuel. (2001). *Leadership development: paths to self-insight and professional growth*. Mahwah, NJ: Lawrence Erlbaum Associates.

McCann, C., & Pigeau, R. (2000). *The human in command: exploring the modern military experience*. New York: Kluwer Academic/Plenum Publishers.

McCauley, C. D., & Van Velsor, E. (Ed.). (2004). *The center for creative leadership: handbook of leadership development.* San Francisco: Jossey-Bass Publishers.

McHugh, J., & Casey, G. (2010), *A statement on the posture of the United States Army 2010*. submitted to the Second Session, 111th Congress at Washington D.C.

Mission Readiness: Military Leaders for Kids. (2009). *Ready, Willing, and Unable to Serve*. Washington, DC. Retrieved from www.MissionReadiness.org

Merriman, D., & Dahms, J. (2009). *The Army's new officership recruiting campaign*. The official homepage of the U.S. Army. Retrieved on July 19, 2012 from http://www.army.mil/article/25337/The_Army__039_s_New___039_Officership__039__Recruiting_Campaign/

Murphy, S. & Riggio, R. (2003). *The future of leadership development*. Mahwah, NJ: Lawrence Erlbaum Associates.

Nagl, J., & Burton, B. (2010). *Keeping the edge: revitalizing America's officer corps.* Washington, D.C.

O'Leonard, K., & Loew, L. (2012). *Leadership development fact book 2012: benchmarks and trends in U.S. leadership development.* Oakland, CA: Bersin and Associates, LLC.

Pearce, C., Sims, H., Cox, J., Ball, G., Schnell, E. & Smith K. (2003). Transactors, transformers and beyond. *Journal of Management Development*. 22(4), 273-308.

Porter, L., & McKibbin, L. (1988). *Management education and development: drift or thrust into the 21st century?* Boston: McGraw-Hill.

Ridge, W. (1989). *Follow me, business leadership patton style*. New York, American Management Association.

Rounsefell, B., (1968). RECONDO! *Green Beret Magazine*. April 1968. Retrieved on July 31, 2013 from http://www.281stahc.org/DELTA/DeltaMag1.htm.

Schein, E. H. (2004). *Organizational culture and leadership*. New York: Jossey-Bass/John Wiley & Sons.

Schirmer, P. (2008). *Leader development in army units, views from the field*. Santa Monica, CA. Rand Corporation.

Schuster, C. R. (2001). *Military transformation, army has a comprehensive plan for managing its transformation but faces major challenges.* U.S. General Accounting Office report to Congressional Committees, November 2001.

Seroi, J., & Wagner, M. (2010). Fit to lead: physical fitness as a core component of leadership. *Corrections Today.* 75(5), 50.

Shinseki, E. K. (2000). *Chief of staff of the army statement before the airland subcommittee on armed services.* U.S. Senate, March 8, 2000. Retrieved on March 28, 2013 from http://www.armed-services.senate.gov/statemnt/2000/000308es.pdf

Smith, J. (2012). The world's most reputable companies. *Forbes*. Retrieved on March 25, 2013 from http://www.forbes.com/sites/jacquelynsmith/2012/06/07/the-worlds-most-reputable-companies/2/

Snider, D. (2005). *The future of the army profession*. In G. Reed, C., Bullis, R. Collins, & C. Paparone (Eds.). *Leadership development: Beyond traits and competencies*. Boston: McGraw-Hill Primis Custom Publishing.

Sorenson, D. (2007). *Military base closure: a reference handbook*. Westport, CT., Greenwood Publishing Group, Inc.

Stewart, R. (2005). *American military history, the united states army and the forming of a nation, volume 1, 1775-1917*. Center of Military History, Washington D.C.

Stulz, J., & Schultz, M. (2011). *The United States Army Reserve, 2011 posture statement*. Submitted to the first session, 112th Congress.

Taylor, P., & Keeter, S. (Eds.). (2010). *Millenials. A Portrait of Generation Next. Confident. Connected. Open to Change.* Retrieved on June 18, 2012 from http://pewsocialtrends.org/files/2010/10/millennials-confident-connected-open-to-change.pdf

Thomas, D., Lumpp, S., Schreiber, J., & Keith, J. (2004). Physical fitness profile of Army ROTC cadets. *Journal of Strength and Conditioning Research*, 18(4), 904-907.

Traversi, D.M. (2007). *The source of leadership: eight drivers of the high-impact leaders.* Oakland: New Harbinger Publications, Inc.

United States Army National Guard. (2011). *About the National Guard*. Retrieved on June 22, 2011 from http://www.arng.army.mil/

United States Army. (2003). *Army Training and Leader Development Panel Officer Study Report to the Army*. Retrieved on June 18, 2012 from http:www.army.milfeatures/ATLD/ATLD.htm.

United States Army Cadet Command. (2012). *Making the best military officers in the world; Motivating young people to be better citizens*.. Retrieved on June 20, 2012 from http://www.cadetcommand.army.mil/history.aspx

United States Military Academy Homepage. Retrieved on June 24, 2012 from http://www.usma.edu/.

United States Army Training and Doctrine Command, Office of the Chief of Public Affairs. *Army Values.* Retrieved on July 4, 2012 from http://tradoc.army.mil/pao/armyvalues/armyvalues.htm

Waldman, D., Ramirez, G., & House, R. (2001). Does leadership matter? ceo leadership attributes and profitability under conditions of perceived environmental uncertainty. *Academy of Management Journal*, 44(1), 134-143.

Wardynski, C., Lyle, D., & Colarusso, M. (2009). *Towards a U.S. army officer corps strategy for success: A proposed human capital model focused on talent* [Monograph]. Retrieved from http://www.strategicstudiesinstitute.army.mil

Wardynski, C., Lyle, D., & Colarusso, M. (2010). *Accessing talent: The foundation of a U.S. Army officer corps strategy* [Monograph]. Retrieved from http://www.strategicstudiesinstitute.army.mil

Wardynski, C., Lyle, D., & Colarusso, M. (March 2010). *Towards a U.S. army officer corps strategy for success: Developing talent* [Monograph]. Retrieved from www.strategicstudiesinstitute.army.mil

Westmoreland, W., (1976). *A soldier reports*. Garden City, New York: Doubleday & Company, Inc.

Yang, X. (2010). *Leadership component of type a behavior predicts physical activity in early midlife*. International Society of Behavioral Medicine.

Yukl, G., & Lepsinger, R. (2006). Leading change; adapting and innovating in an uncertain world. *Leadership in Action*, 26(2), 3-7.

Appendix A
LDAC Packing List

Warrior Forge Cadet Checklist (page 1 of 2)
CLOTHING RECORD

(Cadets are required to bring checklist to LDAC Signed / Inventoried by University Cadre and PMS)

CADET NAME: _____SSN (Last4)_____REGT_____BDE_____

UNIVERSITY/ADDRESS

_____

_____

1. Padlock, Key/Combination	3 ea
2. Cap, ACU	2 ea
3. Jacket (shirt), ACU	3 ea
4. Trousers, ACU	3 ea
5. ACU Tan Riggers Belt (Black is UNAUTHORIZED)	1ea
6. Nametape, ACU	3 ea
7. US Army tape, ACU	2 ea
8. US Flag, ACU	2 ea
9. Cadet Cmd Patch, ACU	2 ea
10. Undershirt, Sand	6 ea
11. Underwear	14 pr
12. T-Shirt IPFU s/s (PT)	3 ea
13. Trunks, IPFU (PT)	3 ea
14. Physical Fitness Jacket	1 ea
15. Physical Fitness Pants, Blk	1 ea
16. Boots, Combat Brown	2 pr
17. Socks, wool, Blk/Grn	6 pr
18. Watch	1 ea
19. Washcloth	3 ea
20. Bath Towels	3 ea
21. Glove, Leather Blk	1 pr
22. Glove, Insert wool	1 pr
23. Insignia, ROTC as required plus as needed for follow on training	2 ea
24. Bra (Female)-Regular or Sports	14 ea
25. Shoes, Shower	1
26. Shoes, Running	1 pr
27. Cold Weather Underwear (top & bottom, BROWN) (e.g. PolyPro)	1 pr
28. Socks, white PT (calf or ankle high)	6 pr
29. Appropriate civilian travel attire	2 sets
30. Notebook, Pocket/pen/pencil (mechanical 0.5mm) (note g)	Min. 2/5/2 of ea
31. Identification Tag w/medical tags if required must meet DoD standards	1 set
32. Eyeglasses (if worn). Contacts are UNAUTHORIZED, glasses must be IAW AR 670-1, NO TINTED LENSES	1 ea
33. Flashlight Elbow type or Mini-Mag w/red lens (4 extra batteries and bulb)	
34. Personal Hygiene Items	As required or as applies
-Minimum 28 day supply: (Below is the Min Req)	
-Small Container of Laundry Soap	
-1 can shaving cream	
-4 razors	
-1 toothbrush	
-Toothpaste	

Warrior Forge Cadet Checklist (page 2 of 2)
CLOTHING RECORD

-Nail clipper
-Soap bar (unscented) and/or bottle shampoo
Female- additional hygiene items
- Pads/tampons/panty liners for duration of training (17 days for the Field, in the A bag or Ruck Sack)
-Baby wipes/cleansing towelettes

35. TACSOP	1 ea
36. Terrain Model Kit (For use at Sqd STX, Patrolling, etc.)	1 set
37. Foot Powder	2 ea (initial)
38. Insect Repellent	1 ea (initial)
39. Sunscreen	1 ea (initial)
40. Chapstick	2 ea (initial)
41. Handkerchiefs	2
42. Hangers, Clothes	Min 10 ea
43. Eyeglass, Safety (with prescription inserts if needed)	1 ea
44. Belt, reflective	1 ea
45. Camouflage Stick Green/Loam/ACU	1 ea (initial)
46. Gallon Size Zip-Lock Bags	10 ea
47. 550 Cord (5mm) (GRN/BLK)	5 meters minimum
48. Tactical Bungee cords, med size (black/ brown/green/ACU)	4 ea
49. Protractor, Map (GTA 5-2-12)(2005)	1 ea (for practice)
50. Bag, Duffel	2 ea
51. Bag, Waterproof	1 ea
52. Poncho	1 ea
53. Canteen, Water (1 qt)	2 ea
54. Knee & Elbow Pads (fitted)	1 pr of each
55. Cup, Canteen	1 ea
56. Case, First Aid w/dressing	1 ea
57. Compass, Lensatic	1 ea
58. Parka w/w ACU or Woodland Camo	1 ea
59. Trousers, w/w ACU or Woodland Camo	1 ea
60. Helmet, Kevlar or ACH – complete	1 ea
61. 30 RD Magazine Pouch (LBE Pouch, NOT MOLLE)	1 ea

62. Checklist signed by cadre member at host school

Appendix B
Sixth ROTC Brigade Schools

U.S. Army Sixth ROTC Brigade, headquartered at Hunter Army Airfield (Savannah), Georgia

Alabama
- Alabama A&M University
- Auburn University
- Auburn University at Montgomery
- Jacksonville State University
- The University of Alabama
- Tuskegee University
- University of Alabama at Birmingham
- University of North Alabama
- University of South Alabama

Florida
- Embry-Riddle Aeronautical University
- Florida A&M University
- Florida Institute of Technology
- Florida International University
- Florida Southern College
- Florida State University
- University of Central Florida
- University of Florida
- University of South Florida
- University of Tampa
- University of West Florida

Georgia
- Augusta State University
- Columbus State University
- Fort Valley State University
- Georgia Institute of Technology
- Georgia Southern University
- Georgia State University
- University of Georgia

Louisiana
- Grambling State University
- Louisiana State University
- Northwestern State University
- Southern University and A&M College
- Tulane University

Mississippi
- Alcorn State University
- Jackson State University
- Mississippi State University
- University of Mississippi
- University of Southern Mississippi

Puerto Rico
- University of Puerto Rico - Mayaguez
- University of Puerto Rico - Rio Piedras

Appendix C
Auburn University IRB Approval (page 1 of 2)

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS

RESEARCH PROTOCOL REVIEW FORM

For Information or help contact THE OFFICE OF RESEARCH COMPLIANCE, 115 Ramsay Hall, Auburn University
Phone: 334-844-5966 e-mail: hsubjec@auburn.edu Web Address: http://www.auburn.edu/research/vpr/ohs/

Revised 03.26.11 – DO NOT STAPLE, CLIP TOGETHER ONLY.

Save a Copy

1. PROPOSED START DATE of STUDY: August 1, 2011

PROPOSED REVIEW CATEGORY (Check one): FULL BOARD EXPEDITED ✓ EXEMPT

2. PROJECT TITLE: AN EXPLORATORY STUDY OF THE U.S. ARMY RESERVE OFFICERS' TRAINING CORPS' ACCESSIONS PROCESS

3. Jon K. Segars — PRINCIPAL INVESTIGATOR | Mr. — TITLE | EFLT — DEPT | 706.718.1129 — PHONE | jks0002@auburn.edu — AU E-MAIL
1692 Abby Road Auburn, Alabama 36830 — MAILING ADDRESS | FAX | jksegars@auburnschools.org — ALTERNATE E-MAIL

4. SOURCE OF FUNDING SUPPORT: ✓ Not Applicable — Internal — External Agency: _____ Pending Received

5. LIST ANY CONTRACTORS, SUB-CONTRACTORS, OTHER ENTITIES OR IRBs ASSOCIATED WITH THIS PROJECT:
US Army Accessions Command, Protocol 2011-01, approved May 26, 2011

6. GENERAL RESEARCH PROJECT CHARACTERISTICS

6A. Mandatory CITI Training

Names of key personnel who have completed CITI:
Dr. James E. Witte ✓
Mr. Jon Segars ✓

CITI group completed for this study:
✓ Social/Behavioral Biomedical

PLEASE ATTACH TO HARD COPY *ALL* CITI CERTIFICATES FOR *EACH* KEY PERSONNEL

6B. Research Methodology

Please check all descriptors that best apply to the research methodology

Data Source(s): New Data ✓ Existing Data

Will recorded data directly or indirectly identify participants? Yes ✓ No

Data collection will involve the use of:
— Educational Tests (cognitive diagnostic, aptitude, etc.)
Interview / Observation
Physical / Physiological Measures or Specimens (see Section 6D)
Surveys / Questionnaires
Internet / Electronic
Audio / Video / Photos
✓ Private records or files

The Auburn University Institutional Review Board has approved this document for use from 8/31/11 to 8/30/12
Protocol # 11-246 EX 1108

6C. Participant Information

Please check all descriptors that apply to the participant population.
✓ Males ✓ Females ✓ AU students

Vulnerable Populations
Pregnant Women/Fetuses — Prisoners
Children and/or Adolescents (under age 19 in AL)

Persons with:
Economic Disadvantages — Physical Disabilities
Educational Disadvantages — Intellectual Disabilities

Do you plan to compensate your participants? — Yes ✓ No

6D. Risks to Participants

Please identify all risks that participants might encounter in this research.
Breach of Confidentiality — Coercion
Deception — Physical
Psychological — Social
None — Other:

RECEIVED

Breach of Confidentiality

*Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

Do you need IBC Approval for this study? ✓ No Yes - BUA # _____ Expiration date _____

FOR OHSR OFFICE USE ONLY

DATE RECEIVED IN OHSR: 9.22.11 by GB
DATE OF IRB REVIEW: 2 8/24/11 by KTE
DATE OF IRB APPROVAL: _____ by _____
COMMENTS:

PROTOCOL # 11-246 EX 1108
APPROVAL CATEGORY: 45 CFR 46.101(b)(4)
INTERVAL FOR CONTINUING REVIEW: 1 year

Appendix D
Protocol 2011-01
U.S. Army Accessions Command

DEPARTMENT OF THE ARMY
UNITED STATES ARMY ACCESSIONS COMMAND
1600 SPEARHEAD DIVISION AVENUE
FORT KNOX KENTUCKY 40122-5600

REPLY TO ATTENTION OF

ATAL-A

26 May 2011

MEMORANDUM FOR Jon K. Segars, Auburn City Schools, 405 S. Dean Road, Auburn, AL 36830

SUBJECT: Protocol 2011-01, Comparison of Relationship Between Physical Fitness and Leadership Potential

1. A determination of exempt status has been requested for Protocol 2011-01, Comparison of Relationship Between Physical Fitness and Leadership Potential. The purpose of this study is to compare two critical factors of leadership potential; academic achievement and physical fitness, in the assessment process of ROTC cadets. This dissertation is in quest of an answer, 'does academic achievement in terms of cumulative grade point average (GPA) or Army Physical Fitness Test (APFT) scores have a stronger relationship with assessed leadership potential scores in Army ROTC cadets?' Two relationships will be compared: the relationship between physical fitness in terms of APFT scores and scores from the Leader Development and Assessment Course (LDAC) and the relationship between cumulative GPA and LDAC scores. It has been determined that Protocol 2010-36, Comparison of Relationship Between Physical Fitness and Leadership Potential meets the criteria for exemption at 32 CFR 219.101(b)(4):

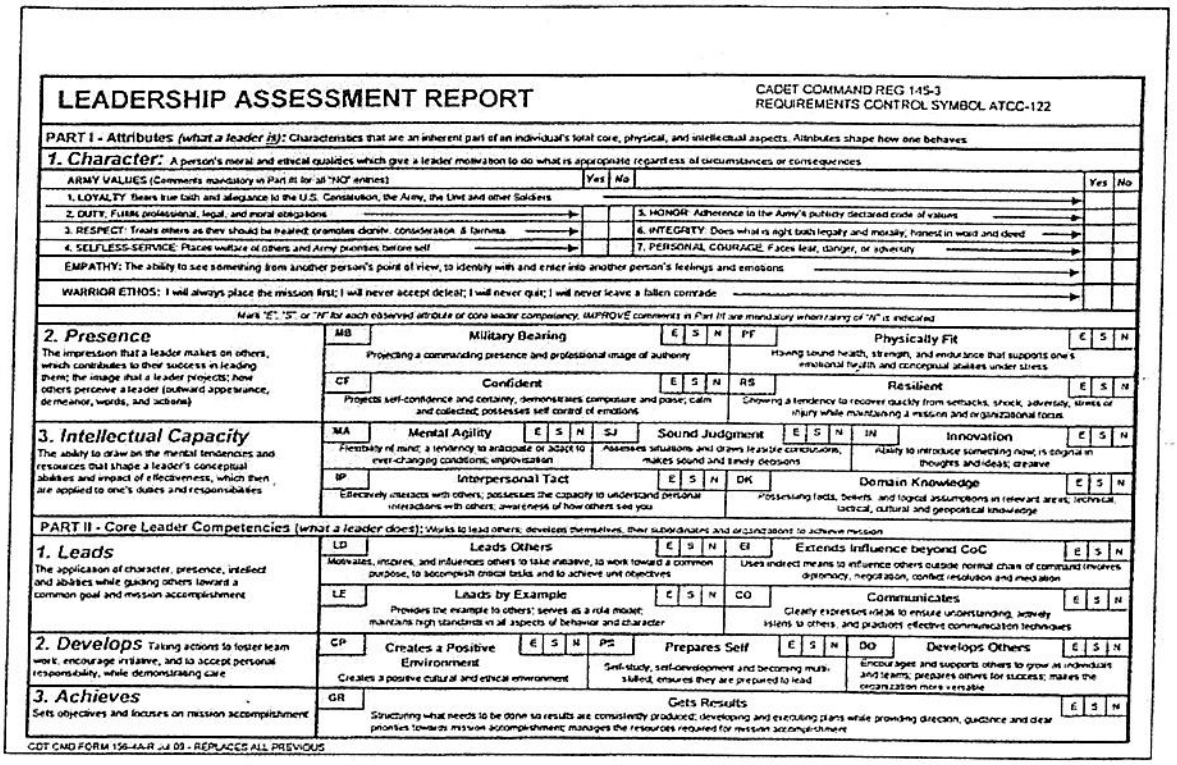
> Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

2. This determination was based on the Protocol and data use agreement received. Although your research project is exempt from IRB review is not exempt from the ethical principles pertaining to human subjects research. All research involving human participates must follow the provisions of applicable regulations and standards regardless of the level or category of review.

3. If you have questions, please contact the USAAC Human Protections Administrator, Mr. David Dunham, (502) 613-0060 or the IRB Chair, Mr. Kevin D. Lyman, (502) 613-0349.

KEVIN D. LYMAN
Chairman
USAAC Institutional Review Board

Appendix E
Cadet Command Form 156-4A-R
Leadership Assessment Report (front and back side)



LEADERSHIP ASSESSMENT REPORT

CADET COMMAND REG 145-3
REQUIREMENTS CONTROL SYMBOL ATCC-122

PART I - Attributes *(what a leader is)*: Characteristics that are an inherent part of an individual's total core, physical, and intellectual aspects. Attributes shape how one behaves.

1. Character: A person's moral and ethical qualities which give a leader motivation to do what is appropriate regardless of circumstances or consequences.

ARMY VALUES (Comments mandatory in Part III for all "NO" entries)	Yes	No		Yes	No
1. LOYALTY: Bears true faith and allegiance to the U.S. Constitution, the Army, the Unit and other Soldiers					
2. DUTY: Fulfills professional, legal, and moral obligations			5. HONOR: Adherence to the Army's publicly declared code of values		
3. RESPECT: Treats others as they should be treated; promotes dignity, consideration, & fairness			6. INTEGRITY: Does what is right both legally and morally; honest in word and deed		
4. SELFLESS-SERVICE: Places welfare of others and Army priorities before self			7. PERSONAL COURAGE: Faces fear, danger, or adversity		
EMPATHY: The ability to see something from another person's point of view, to identify with and enter into another person's feelings and emotions					
WARRIOR ETHOS: I will always place the mission first; I will never accept defeat; I will never quit; I will never leave a fallen comrade					

Mark "E", "S", or "N" for each observed attribute or core leader competency. IMPROVE comments in Part III are mandatory when a rating of "N" is indicated.

2. Presence — The impression that a leader makes on others, which contributes to their success in leading them; the image that a leader projects; how others perceive a leader (outward appearance, demeanor, words, and actions)

		E	S	N			E	S	N
MB	**Military Bearing**: Projecting a commanding presence and professional image of authority				PF	**Physically Fit**: Having sound health, strength, and endurance that supports one's emotional health and conceptual abilities under stress			
CF	**Confident**: Projects self-confidence and certainty; demonstrates composure and poise; calm and collected; possesses self control of emotions				RS	**Resilient**: Showing a tendency to recover quickly from setbacks, shock, adversity, stress or injury while maintaining a mission and organizational focus			

3. Intellectual Capacity — The ability to draw on the mental tendencies and resources that shape a leader's conceptual abilities and impact of effectiveness, which then are applied to one's duties and responsibilities

		E	S	N			E	S	N			E	S	N
MA	**Mental Agility**: Flexibility of mind; a tendency to anticipate or adapt to ever-changing conditions; improvisation				SJ	**Sound Judgment**: Assesses situations and draws feasible conclusions; makes sound and timely decisions				IN	**Innovation**: Ability to introduce something new; is original in thoughts and ideas; creative			
IP	**Interpersonal Tact**: Effectively interacts with others; possesses the capacity to understand personal interactions with others; awareness of how others see you				DK	**Domain Knowledge**: Possessing facts, beliefs, and logical assumptions in relevant areas; technical, tactical, cultural and geopolitical knowledge								

PART II - Core Leader Competencies (*what a leader does*): Works to lead others; develops themselves, their subordinates and organizations to achieve mission.

1. Leads — The application of character, presence, intellect and abilities while guiding others toward a common goal and mission accomplishment

		E	S	N			E	S	N
LD	**Leads Others**: Motivates, inspires, and influences others to take initiative, to work toward a common purpose, to accomplish critical tasks and to achieve unit objectives				EI	**Extends Influence beyond CoC**: Uses indirect means to influence others outside normal chain of command (involves diplomacy, negotiation, conflict resolution and mediation			
LE	**Leads by Example**: Provides the example to others; serves as a role model; maintains high standards in all aspects of behavior and character				CO	**Communicates**: Clearly expresses ideas to ensure understanding; actively listens to others; and practices effective communication techniques			

2. Develops Taking actions to foster team work, encourage initiative, and to accept personal responsibility, while demonstrating care

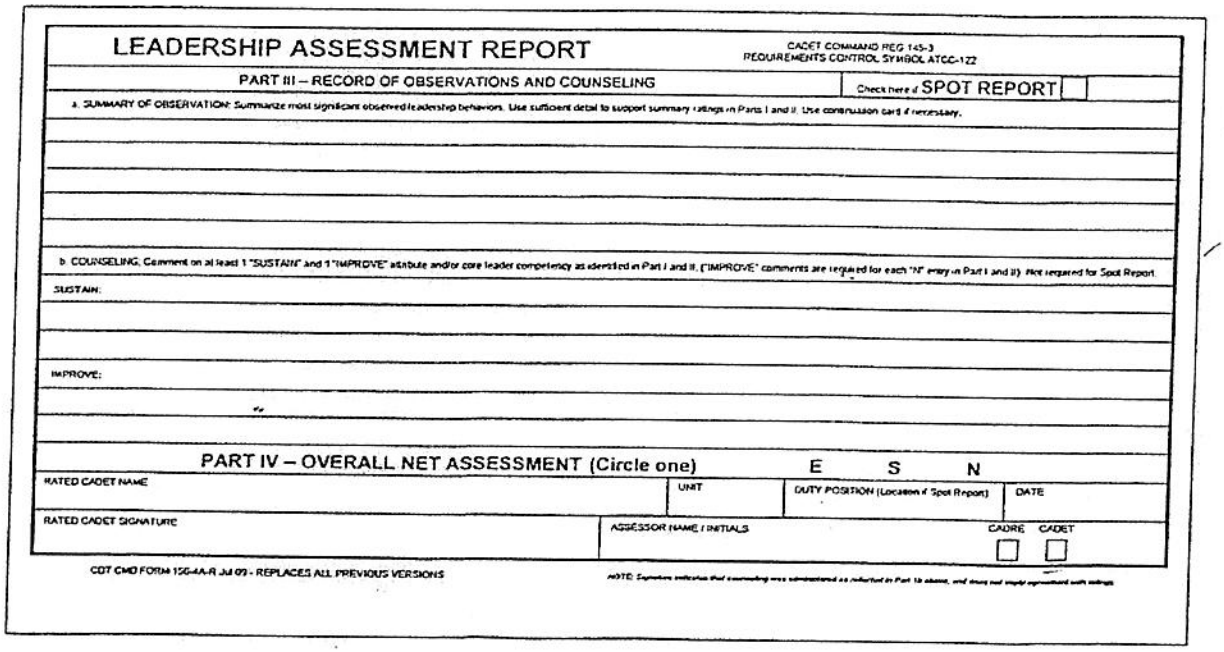
		E	S	N			E	S	N			E	S	N
CP	**Creates a Positive Environment**: Creates a positive cultural and ethical environment				PS	**Prepares Self**: Self-study, self-development and becoming multi-skilled; ensures they are prepared to lead				DO	**Develops Others**: Encourages and supports others to grow as individuals and leaders; prepares others for success; makes the organization more versatile			

3. Achieves — Sets objectives and focuses on mission accomplishment

		E	S	N
GR	**Gets Results**: Structuring what needs to be done so results are consistently produced; developing and executing plans while providing direction, guidance and clear priorities towards mission accomplishment; manages the resources required for mission accomplishment			

CDT CMD FORM 156-4A-R Jul 09 - REPLACES ALL PREVIOUS

Leadership Assessment/Sport Report (Front)
CDT CMD Form 156-4A-R – Jul 09



LEADERSHIP ASSESSMENT REPORT

CADET COMMAND REG 145-3
REQUIREMENTS CONTROL SYMBOL ATCC-122

PART III – RECORD OF OBSERVATIONS AND COUNSELING — Check here if SPOT REPORT ☐

a. SUMMARY OF OBSERVATION: Summarize most significant observed leadership behaviors. Use sufficient detail to support summary ratings in Parts I and II. Use continuation card if necessary.

b. COUNSELING: Comment on at least 1 "SUSTAIN" and 1 "IMPROVE" attribute and/or core leader competency as identified in Part I and II. ("IMPROVE" comments are required for each "N" entry in Part I and II). Not required for Spot Report.

SUSTAIN:

IMPROVE:

PART IV – OVERALL NET ASSESSMENT (Circle one) E S N

RATED CADET NAME	UNIT	DUTY POSITION (Location if Spot Report)	DATE
RATED CADET SIGNATURE	ASSESSOR NAME / INITIALS	CADRE ☐	CADET ☐

CDT CMD FORM 156-4A-R Jul 09 - REPLACES ALL PREVIOUS VERSIONS

NOTE: Signature indicates that counseling was administered as reflected in Part III above, and does not imply agreement with ratings.

"THE PUSH-UP EVENT MEASURES THE ENDURANCE OF THE CHEST, SHOULDER, AND TRICEPS MUSCLES. ON THE COMMAND, 'GET SET', ASSUME THE FRONT-LEANING REST POSITION BY PLACING YOUR HANDS WHERE THEY ARE COMFORTABLE FOR YOU. YOUR FEET MAY BE TOGETHER OR UP TO 12 INCHES APART (MEASURED BETWEEN THE FEET). WHEN VIEWED FROM THE SIDE, YOUR BODY SHOULD FORM A GENERALLY STRAIGHT LINE FROM YOUR SHOULDERS TO YOUR ANKLES. ON THE COMMAND 'GO', BEGIN THE PUSH-UP BY BENDING YOUR ELBOWS AND LOWERING YOUR ENTIRE BODY AS A SINGLE UNIT UNTIL YOUR UPPER ARMS ARE AT LEAST PARALLEL TO THE GROUND. THEN, RETURN TO THE STARTING POSITION BY RAISING YOUR ENTIRE BODY UNTIL YOUR ARMS ARE FULLY EXTENDED. YOUR BODY MUST REMAIN RIGID IN A GENERALLY STRAIGHT LINE AND MOVE AS A UNIT WHILE PERFORMING EACH REPETITION. AT THE END OF EACH REPETITION, THE SCORER WILL STATE THE NUMBER OF REPETITIONS YOU HAVE COMPLETED CORRECTLY. IF YOU FAIL TO KEEP YOUR BODY GENERALLY STRAIGHT, TO LOWER YOUR WHOLE BODY UNTIL YOUR UPPER ARMS ARE AT LEAST PARALLEL TO THE GROUND, OR TO EXTEND YOUR ARMS COMPLETELY, THAT REPETITION WILL NOT COUNT, AND THE SCORER WILL REPEAT THE NUMBER OF THE LAST CORRECTLY PERFORMED REPETITION."

"IF YOU FAIL TO PERFORM THE FIRST 10 PUSH-UPS CORRECTLY, THE SCORER WILL TELL YOU TO GO TO YOUR KNEES AND WILL EXPLAIN YOUR DEFICIENCIES. YOU WILL THEN BE SENT TO THE END OF THE LINE TO BE RETESTED. AFTER THE FIRST 10 PUSH-UPS HAVE BEEN PERFORMED AND COUNTED, NO RESTARTS ARE ALLOWED. THE TEST WILL CONTINUE, AND ANY INCORRECTLY PERFORMED PUSH-UPS WILL NOT BE COUNTED. AN ALTERED, FRONT-LEANING REST POSITION IS THE ONLY AUTHORIZED REST POSITION. THAT IS, YOU MAY SAG IN THE MIDDLE OR FLEX YOUR BACK. WHEN FLEXING YOUR BACK, YOU MAY BEND YOUR KNEES, BUT NOT TO SUCH AN EXTENT THAT YOU ARE SUPPORTING MOST OF YOUR BODY WEIGHT WITH YOUR LEGS. IF THIS OCCURS, YOUR PERFORMANCE WILL BE TERMINATED. YOU MUST RETURN TO, AND PAUSE IN, THE CORRECT STARTING POSITION BEFORE CONTINUING. IF YOU REST ON THE GROUND OR RAISE EITHER HAND OR FOOT FROM THE GROUND, YOUR PERFORMANCE WILL BE TERMINATED. YOU MAY REPOSITION YOUR HANDS AND/OR FEET DURING THE EVENT AS LONG AS THEY REMAIN IN CONTACT WITH THE GROUND AT ALL TIMES. CORRECT PERFORMANCE IS IMPORTANT. YOU WILL HAVE TWO MINUTES IN WHICH TO DO AS MANY PUSH-UPS AS YOU CAN. WATCH THIS DEMONSTRATION."

TC 3-22.20 (2010), Push-up event narrative

"THE SIT-UP EVENT MEASURES THE ENDURANCE OF THE ABDOMINAL AND HIP-FLEXOR MUSCLES. ON THE COMMAND 'GET SET', ASSUME THE STARTING POSITION BY LYING ON YOUR BACK WITH YOUR KNEES BENT AT A 90-DEGREE ANGLE. YOUR FEET MAY BE TOGETHER OR UP TO 12 INCHES APART (MEASURED BETWEEN THE FEET). ANOTHER PERSON WILL HOLD YOUR ANKLES WITH THE HANDS ONLY. NO OTHER METHOD OF BRACING OR HOLDING THE FEET IS AUTHORIZED. THE HEEL IS THE ONLY PART OF YOUR FOOT THAT MUST STAY IN CONTACT WITH THE GROUND. YOUR FINGERS MUST BE INTERLOCKED BEHIND YOUR HEAD AND THE BACKS OF YOUR HANDS MUST TOUCH THE GROUND. YOUR ARMS AND ELBOWS NEED NOT TOUCH THE GROUND. ON THE COMMAND, 'GO', BEGIN RAISING YOUR UPPER BODY FORWARD TO, OR BEYOND, THE VERTICAL POSITION. THE VERTICAL POSITION MEANS THAT THE BASE OF YOUR NECK IS ABOVE THE BASE OF YOUR SPINE. AFTER YOU HAVE REACHED OR SURPASSED THE VERTICAL POSITION, LOWER YOUR BODY UNTIL THE BOTTOM OF YOUR SHOULDER BLADES TOUCH THE GROUND. YOUR HEAD, HANDS, ARMS OR ELBOWS DO NOT HAVE TO TOUCH THE GROUND. AT THE END OF EACH REPETITION, THE SCORER WILL STATE THE NUMBER OF SIT-UPS YOU HAVE CORRECTLY PERFORMED. A REPETITION WILL NOT COUNT IF YOU FAIL TO REACH THE VERTICAL POSITION, FAIL TO KEEP YOUR FINGERS INTERLOCKED BEHIND YOUR HEAD, ARCH OR BOW YOUR BACK AND RAISE YOUR BUTTOCKS OFF THE GROUND TO RAISE YOUR UPPER BODY, OR LET YOUR KNEES EXCEED A 90-DEGREE ANGLE. IF A REPETITION DOES NOT COUNT, THE SCORER WILL REPEAT THE NUMBER OF YOUR LAST CORRECTLY PERFORMED SIT-UP. IF YOU FAIL TO PERFORM THE FIRST 10 SIT-UPS CORRECTLY, THE SCORER WILL TELL YOU TO 'STOP' AND WILL EXPLAIN YOUR DEFICIENCIES. YOU WILL THEN BE SENT TO THE END OF THE LINE TO BE RE-TESTED. AFTER THE FIRST 10 SIT-UPS HAVE BEEN PERFORMED AND COUNTED, NO RESTARTS ARE ALLOWED. THE TEST WILL CONTINUE, AND ANY INCORRECTLY PERFORMED SIT-UPS WILL NOT BE COUNTED. THE UP POSITION IS THE ONLY AUTHORIZED REST POSITION.

"IF YOU STOP AND REST IN THE DOWN (STARTING) POSITION, THE EVENT WILL BE TERMINATED. AS LONG AS YOU MAKE A CONTINUOUS PHYSICAL EFFORT TO SIT UP, THE EVENT WILL NOT BE TERMINATED. YOU MAY NOT USE YOUR HANDS OR ANY OTHER MEANS TO PULL OR PUSH YOURSELF UP TO THE UP (REST) POSITION OR TO HOLD YOURSELF IN THE REST POSITION. IF YOU DO SO, YOUR PERFORMANCE IN THE EVENT WILL BE TERMINATED. CORRECT PERFORMANCE IS IMPORTANT. YOU WILL HAVE TWO MINUTES TO PERFORM AS MANY SIT-UPS AS YOU CAN. WATCH THIS DEMONSTRATION."

TC 3-22.20 (2010), Sit-up event narrative

"THE 2-MILE RUN MEASURES YOUR AEROBIC FITNESS AND ENDURANCE OF THE LEG MUSCLES. YOU MUST COMPLETE THE RUN WITHOUT ANY PHYSICAL HELP. AT THE START, ALL SOLDIERS WILL LINE UP BEHIND THE STARTING LINE. ON THE COMMAND 'GO', THE CLOCK WILL START. YOU WILL BEGIN RUNNING AT YOUR OWN PACE. TO RUN THE REQUIRED TWO MILES, YOU MUST COMPLETE THE REQUIRED 2-MILE DISTANCE (DESCRIBE THE NUMBER OF LAPS, START AND FINISH POINTS, AND COURSE LAYOUT). YOU ARE BEING TESTED ON YOUR ABILITY TO COMPLETE THE TWO-MILE COURSE IN THE SHORTEST TIME POSSIBLE. ALTHOUGH WALKING IS AUTHORIZED, IT IS STRONGLY DISCOURAGED. IF YOU ARE PHYSICALLY HELPED IN ANY WAY (FOR EXAMPLE, PULLED, PUSHED, PICKED UP AND/OR CARRIED), OR LEAVE THE DESIGNATED RUNNING COURSE FOR ANY REASON, THE EVENT WILL BE TERMINATED. IT IS LEGAL TO PACE A SOLDIER DURING THE TWO-MILE RUN AS LONG AS THERE IS NO PHYSICAL CONTACT WITH THE PACED SOLDIER AND IT DOES NOT PHYSICALLY HINDER OTHER SOLDIERS TAKING THE TEST. THE PRACTICE OF RUNNING AHEAD OF, ALONG SIDE OF, OR BEHIND THE TESTED SOLDIER WHILE SERVING AS A PACER IS PERMITTED. CHEERING OR CALLING OUT THE ELAPSED TIME IS ALSO PERMITTED. THE NUMBER ON YOUR CHEST IS FOR IDENTIFICATION. YOU MUST MAKE SURE IT IS VISIBLE AT ALL TIMES. TURN IN YOUR NUMBER WHEN YOU FINISH THE RUN AND GO TO THE AREA DESIGNATED FOR RECOVERY. DO NOT STAY NEAR THE SCORERS OR THE FINISH LINE AS THIS MAY INTERFERE WITH TESTING."

TC 3-22.20 (2010), 2-mile run event narrative

Appendix I
APFT Grading Scales

Push-up grading scale

Age Group	17-21		22-26		27-31		32-36		37-41	
Repetitions	M	F	M	F	M	F	M	F	M	F
77					100					
76					99					
75			100		98		100			
74			99		97		99			
73			98		96		98		100	
72			97		95		97		99	
71	100		95		94		96		98	
70	99		94		93		95		97	
69	97		93		92		94		96	
68	96		92		91		93		95	
67	94		91		89		92		94	
66	93		90		88		91		93	
65	92		89		87		90		92	
64	90		87		86		89		91	
63	89		86		85		88		90	
62	88		85		84		87		89	
61	86		84		83		86		88	
60	85		83		82		85		87	
59	83		82		81		84		86	
58	82		81		80		83		85	
57	81		79		79		82		84	
56	79		78		78		81		83	
55	78		77		77		79		82	
54	77		76		76		78		81	
53	75		75		75		77		79	
52	74		74		74		76		78	
51	72		73		73		75		77	
50	71		71		72	100	74		76	
49	70		70		71	99	73		75	
48	68		69		69	98	72		74	
47	67		68		68	96	71		73	
46	66		67	100	67	95	70		72	
45	64		66	99	66	94	69	100	71	
44	63		65	97	65	93	68	99	70	
43	61		63	96	64	92	67	97	69	
42	60	100	62	94	63	90	66	96	68	

Appendix I
APFT Grading Scales

41	59	98	61	93	62	89	65	95	67	
40	57	97	60	92	61	88	64	93	66	100
39	56	95	59	90	60	87	63	92	65	99
38	54	93	58	89	59	85	62	91	64	97
37	53	91	57	88	58	84	61	89	63	96
36	52	90	55	86	57	83	60	88	62	94
35	50	88	54	85	56	82	59	87	61	93
34	49	86	53	83	55	81	58	85	60	91
33	48	84	52	82	54	79	57	84	59	90
32	46	83	51	81	53	78	56	83	58	88
31	45	81	50	79	52	77	55	81	57	87
30	43	79	49	78	50	76	54	80	56	85
29	42	77	47	77	49	75	53	79	55	84
28	41	76	46	75	48	73	52	77	54	82
27	39	74	45	74	47	72	51	76	53	81
26	38	72	44	72	46	71	50	75	52	79
25	37	70	43	71	45	70	49	73	51	78
24	35	69	42	70	44	68	48	72	50	76
23	34	67	41	68	43	67	47	71	49	75
22	32	65	39	67	42	66	46	69	48	73
21	31	63	38	66	41	65	45	68	47	72
20	30	62	37	64	40	64	44	67	46	70
19	28	60	36	63	39	62	43	65	45	69
18	27	58	35	61	38	61	42	64	44	67
17	26	57	34	60	37	60	41	63	43	66
16	24	55	33	59	36	59	39	61	42	64
15	23	53	31	57	35	58	38	60	41	63
14	21	51	30	56	34	56	37	59	39	61
13	20	50	29	54	33	55	36	58	38	60
12	19	48	28	52	32	54	35	56	37	59
11	17	46	27	50	31	52	34	54	36	57
10	16	44	26	49	29	50	33	52	35	56

Appendix I
APFT Grading Scales

Sit-up grading scale

Age Group	17-21	22-26	27-31	32-36	37-41
Repetitions	M/F	M/F	M/F	M/F	M/F
82			100		
81			99		
80		100	98		
79		99	97		
78	100	97	96		
77	98	96	95		
76	97	95	94	100	100
75	95	93	92	99	99
74	94	92	91	98	98
73	92	91	90	96	97
72	90	89	89	95	96
71	89	88	88	94	95
70	87	87	87	93	94
69	86	85	86	92	93
68	84	84	85	91	92
67	82	83	84	89	91
66	81	81	83	88	89
65	79	80	82	87	88
64	78	79	81	86	87
63	76	77	79	85	86
62	74	76	78	84	85
61	73	75	77	82	84
60	71	73	76	81	83
59	70	72	75	80	82
58	68	71	74	79	81
57	66	69	73	78	80
56	65	68	72	76	79
55	63	67	71	75	78
54	62	65	70	74	77
53	60	64	69	73	76
52	58	63	68	72	75
51	57	61	66	71	74
50	55	60	65	69	73
49	54	59	64	68	72
48	52	57	63	67	71
47	50	56	62	66	69

46	49	55	61	65	68
45	47	53	60	64	67
44	46	52	59	62	66
43	44	50	58	61	65
42	42	49	57	60	64
41	41	48	56	59	63
40	39	47	55	58	62
39	38	45	54	56	61
38	36	44	52	55	60
37	34	43	51	54	59
36	33	41	50	53	58
35	31	40	49	52	57
34	30	39	48	50	56
33	28	37	47	49	55
32	26	36	46	48	54
31	25	35	45	47	53
30	23	33	44	46	52
29	22	32	43	45	50
28	20	31	42	44	49
27	18	29	41	42	48
26	17	28	39	41	47
25	15	27	38	40	46
24	14	25	37	39	45
23	12	24	36	38	44
22	10	23	35	36	43
21	9	21	34	35	42

Appendix I
APFT Grading Scales

2-mile run grading scale

Age Group	17-21		22-26		27-31		32-36		37-41	
Time	M	F	M	F	M	F	M	F	M	F
12:54										
13:00	100		100							
13:06	99		99							
13:12	97		98							
13:18	96		97		100		100			
13:24	94		96		99		99			
13:30	93		94		98		98			
13:36	92		93		97		97		100	
13:42	90		92		96		96		99	
13:48	89		91		95		95		98	
13:54	88		90		94		95		97	
14:00	86		89		92		94		97	
14:06	85		88		91		93		96	
14:12	83		87		90		92		95	
14:18	82		86		89		91		94	
14:24	81		84		88		90		93	
14:30	79		83		87		89		92	
14:36	78		82		86		88		91	
14:42	77		81		85		87		91	
14:48	75		80		84		86		90	
14:54	74		79		83		85		89	
15:00	72		78		82		85		88	
15:06	71		77		81		84		87	
15:12	70		76		79		83		86	
15:18	68		74		78		82		86	
15:24	67		73		77		81		85	
15:30	66		72		76		80		84	
15:36	64	100	71	100	75		79		83	
15:42	63	99	70	99	74		78		82	
15:48	61	98	69	98	73	100	77		81	
15:54	60	96	68	97	72	99	76	100	80	
16:00	59	95	67	96	71	98	75	99	80	
16:06	57	94	66	95	70	97	75	99	79	
16:12	56	93	64	94	69	97	74	98	78	
16:18	54	92	63	93	68	96	73	97	77	

Appendix I
APFT Grading Scales

16:24	53	90	62	92	66	95	72	97	76	
16:30	52	89	61	91	65	94	71	96	75	
16:36	50	88	60	90	64	93	70	95	74	
16:42	49	87	59	89	63	92	69	94	74	
16:48	48	85	58	88	62	91	68	94	73	
16:54	46	84	57	87	61	91	67	93	72	
17:00	45	83	56	86	60	90	66	92	71	100
17:06	43	82	54	85	59	89	65	92	70	99
17:12	42	81	53	84	58	88	65	91	69	99
17:18	41	79	52	83	57	87	64	90	69	98
17:24	39	78	51	82	56	86	63	90	68	97
17:30	38	77	50	81	55	86	62	89	67	96
17:36	37	76	49	80	54	85	61	88	66	96
17:42	35	75	48	79	52	84	60	88	65	95
17:48	34	73	47	78	51	83	59	87	64	94
17:54	32	72	46	77	50	82	58	86	63	94
18:00	31	71	44	76	49	81	57	86	63	93
18:06	30	70	43	75	48	80	56	85	62	92
18:12	28	68	42	74	47	80	55	84	61	92
18:18	27	67	41	73	46	79	55	83	60	91
18:24	26	66	40	72	45	78	54	83	59	90
18:30	24	65	39	71	44	77	53	82	58	89
18:36	23	64	38	70	43	76	52	81	57	89
18:42	21	62	37	69	42	75	51	81	57	88
18:48	20	61	36	68	41	74	50	80	56	87
18:54	19	60	34	67	39	74	49	79	55	87
19:00	17	59	33	66	38	73	48	79	54	86
19:06	16	58	32	65	37	72	47	78	53	85
19:12	14	56	31	64	36	71	46	77	52	85
19:18	13	55	30	63	35	70	45	77	51	84
19:24	12	54	29	62	34	69	45	76	51	83
19:30	10	53	28	61	33	69	44	75	50	82
19:36	9	52	27	60	32	68	43	74	49	82