U.S. ARMY OFFICE OF ECONOMIC
AND MANPOWER ANALYSIS

Army Talent Management: Officer Corps Case Study

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FOREWORD

Creating and maintaining a talented U.S. Army Officer Corps has always been the cornerstone of the nation's defense. In this six volume monograph series, Colonel Casey Wardynski, Major David S. Lyle, and Lieutenant Colonel (Ret.) Michael J. Colarusso consider America's continuing commitment to an all-volunteer military, its global engagement in an era of persistent conflict, and evolving changes in its domestic labor market. They argue that the intersection of these factors demands a comprehensive Officer Corps strategy recognizing the interdependency of accessing, developing, retaining and employing talent. In their view, building a talent-focused strategy around this four-phase human capital model will best posture the Army to match individual officer talents to specific talent demands.

The authors conclude that without such a talent-focused strategy, the Army and its Officer Corps confront the increasing likelihood that they will be unequal to future American national security demands.

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A TALENT FOCUSED HUMAN CAPITAL MODEL

INTRODUCTION

Throughout its history, military officers have been integral to the formulation and execution of U.S. national security policy. From George Washington, Ulysses Grant, and George Marshall to Norman Schwarzkopf, Colin Powell, and David Petraeus, the United States has repeatedly called upon its most talented Army officers to execute missions successfully across a wide spectrum, from peacetime military engagement to major combat operations. Several factors, however, may make future challenges markedly different from those met so successfully in the past.

First, the United States and its allies are confronted by an increasing number of actors who are willing to use violence to achieve their ends, unconstrained by the moral convictions or legal restrictions within which traditional military forces operate. The intersection of several factors has created this ever more dynamic and demanding security environment, including the accelerating creation and diffusion of technology, urbanization, globalization, resource competition, the proliferation of weapons of mass destruction (WMD), and the absence of the rule of law in a growing number of failed states.[1]

Moreover, while its current generation of officers has been able to count upon American economic and technological preeminence as unrivaled sources of

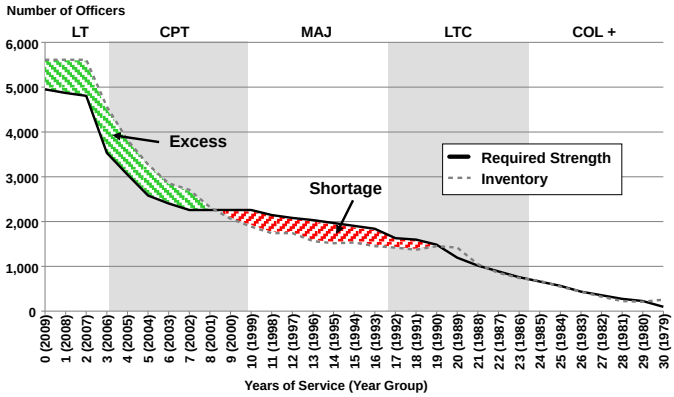
power, the U.S. Army's future officers may be unable to do so. Instead, they will likely be confronted by several nations possessing large, relatively young and well-educated populations, with greater access to capital and technology drawn from rapidly expanding domestic economies. Against this backdrop of competing nation-states, Army leaders will also be challenged by non-state actors who operate in and around urban centers, rely upon the safe havens provided by a growing number of failed states, and adapt technologies to create asymmetric threats. As we have seen in Iraq and Afghanistan, prevailing against such foes is landpower-intensive. As a result, the U.S. Army's particular competencies are in great demand and will likely remain so for the foreseeable future.

Second, the United States and its armed forces are waging this protracted conflict with an all-volunteer military force. Unlike previous wars, there is little "lateral entry" of specialized talent via conscription, nor is there any significant popular or political U.S. support for returning to a draft. America's Army, therefore, must wage war with the volunteer officers it accesses and retains. Now more than ever, these men and women must be extremely talented.

Yet, despite the Global War on Terrorism (GWOT) entering its 8th year, there is compelling evidence that the Army has continued to rely upon legacy officer management practices, practices that were increasingly outmoded even before the war began. In fact, that evidence suggests that the United States has been assuming significant risk in its Army Officer Corps for over a decade. Consequently, the Army requires an officer corps strategy to meet the unique challenges outlined above.

SYMPTOMS OF AN OFFICER CORPS AT RISK

It is important to clarify from the outset that we are not arguing that the Army Officer Corps is unequal to current demands. Rather, we posit that there are increasing and accelerating signs that its Officer Corps *will* be unequal to future demands unless substantive changes are made in its management. Perhaps the most serious risk indicator is the Army's persistent and substantial gap in mid-career officers. Mid-career officers are the heart and soul of a professional officer corps; they lead, coach and mentor junior officers and they are the feedstock for future general officers. Consider, for example, the "cohort" of Army officers who were commissioned in 1998, now having served 10 years of active duty. As depicted in Figure 1, the Army still requires about 2,200 of these officers, but it has only retained about 1,800. Additionally, for the ranks of captain through lieutenant colonel, the Army is only manned at 80 percent strength.[2]



Data are from the *Total Army Personnel Data Base* as of September 2009 and the *Manning Authorization Document* as of September 2009.

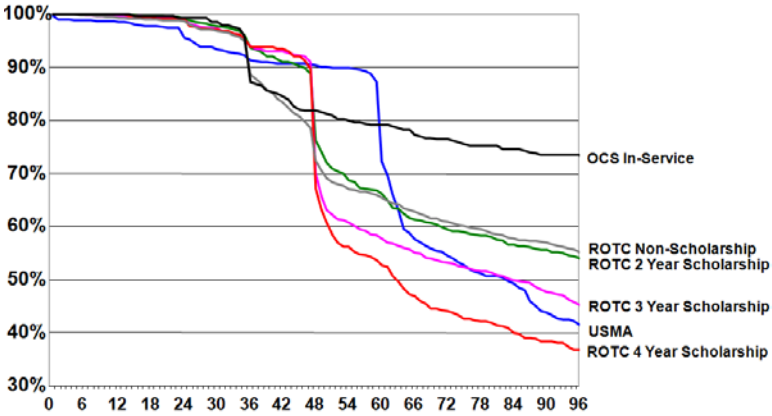
Figure 1. Requirements and Inventory

Moreover, continuations on active duty past the commissioning obligation are *lowest* among the junior officers that the U.S. Army invested the *most* in. These officers are produced either by the Army's Reserve Officer Training Corps (ROTC) 4-year university scholarship program, or through attendance at the United States Military Academy (USMA or West Point).[3] Figure 2 shows that 4-year ROTC scholars and West Point graduates continue to 8 years of active Army service at the lowest rates. The Army paid for the undergraduate education of these officers due to their demonstrated intelligence, leadership potential, and high aptitudes for learning. Coupled with the education and training provided by the Army, these characteristics are in demand everywhere and are aggressively sought by outside employers. As these officers have the greatest range of employment options, they more often exercise those options when their Army careers fail to meet their expectations.

Low continuation rates and the corresponding shortage of mid-level career officers has a cascading effect upon officer management that goes well beyond the over-production of lieutenants, with further negative implications for overall officer quality. Take, for example, the Army's loss of discretion over promotion rates. Figure 3 captures the dramatic rise in promotions to the rank of major and lieutenant colonel over the past decade. In 1997, the Army promoted roughly 60 percent of eligible officers to the rank of lieutenant colonel and 75 percent of eligible officers to the rank of major. By 2007, however, the Army promoted over 90 percent of eligible officers to the rank of lieutenant colonel and major. Of note, more than half of this growth in promotions occurred *before* the

beginning of Operation IRAQI FREEDOM (OIF) in March 2003. As a result, officers whom the Army previously might not have promoted are increasingly assuming positions of responsibility to which they maybe unequal.

Percent of Year Group 1996 Competitive Category Officers Remaining on Active Duty through 8 Years of Service



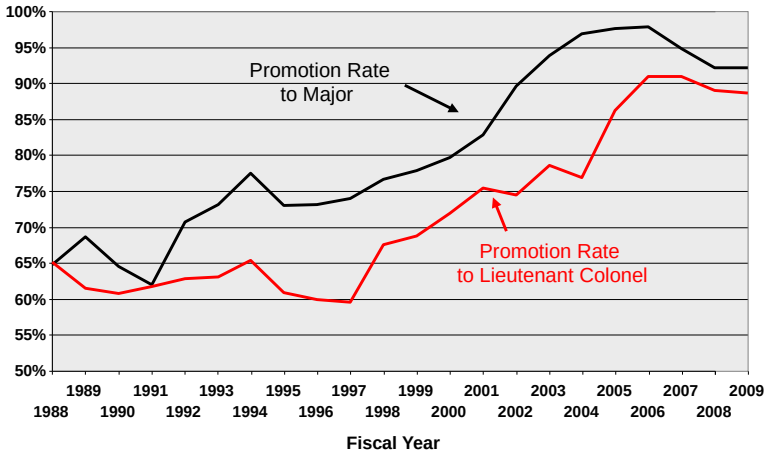
Data are from the *Total Army Personnel Data Base for Year Group 1996*, which is representative of all year groups in the 1990s.

Figure 2. Scholarship Source Officers Continue in the Army at the Lowest Rates

In addition to low continuations, enduring officer shortages, and escalating promotion rates, the U.S. Army has also substantially changed its mix of officers by commissioning source. As mentioned earlier, the Army offers 4-year scholarships to attract the best and brightest talent into its officer ranks through ROTC and West Point. It also offers 2- and 3-year scholarships as a

means of attracting college students into ROTC to fill shortfalls in accession objectives.

Competitive Category Primary Zone Promotion Rate by Fiscal Year



Data are from the *Total Army Personnel Data Base*.

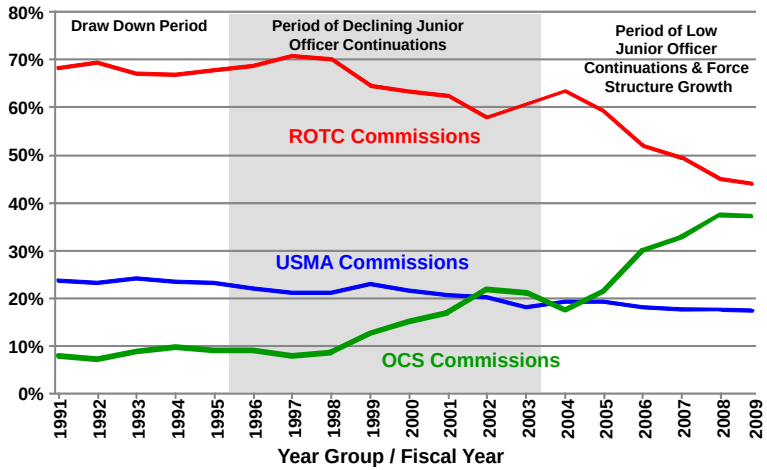
Figure 3. Promotion Rates to Major and Lieutenant Colonel

To provide opportunities to its most talented enlisted soldiers, the Army also commissions officers through in-service Officer Candidate School (OCS-IS). Finally, it offers an enlistment option for Officer Candidate School (OCS-EO) to individuals who have graduated from college and decide that they want to be an officer.[4]

As shown in Figure 4, West Point graduates comprise roughly 20 percent of active duty officer production (per congressional mandate). Meanwhile, from the inception of an all volunteer U.S. military force in 1973, through 1998, both OCS sources have historically combined to provide another 10 percent. The engine of the

commissioned Officer Corps, however, has been ROTC, which over this same period produced 70 percent of each commissioned officer cohort. From 1998 to 2008, however, the Army has shifted commissions away from ROTC and towards OCS. As a result, OCS grew from 10 percent of a commissioned cohort to more than 40 percent, and was the single largest source of commission in 2008.

Percentage of Competitive Category Officers Commissioned by Source and Year Group



Data are from the *Total Army Personnel Data Base* and *Manning Authorization Document.*

Figure 4. Officer Accessions by Source of Commission

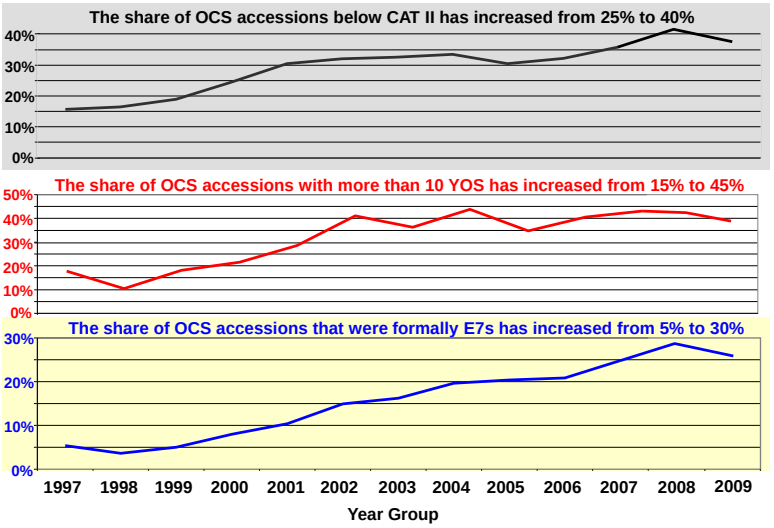
One might think that it is natural to expand OCS in a time of war, but two characteristics of today's OCS expansion differentiate it from the past. The first is that a full third of this shift from ROTC to OCS occurred *prior* to OIF. Second, during previous OCS expansions, the bulk of its new officers served the critical purpose of

providing excellent junior officer leadership to a draft army. At war's end, the majority of them would accompany the conscripts they led back into the civilian workforce. Today, however, OCS officers receive a "Regular Army" commission and are placed upon the path to mid-career and senior leadership positions.[5]

There are several implications of accessing such a large share of officers via OCS. First, while it may seem counterintuitive, OCS-IS is the single most expensive source in terms of marginal cost (the change in total cost to the U.S. Army that occurs every time an additional officer is produced). Unlike the young person brought into West Point or ROTC from outside of the Army, the OCS-IS officer is recruited from *within* it. His or her commissioning robs the Non-Commissioned Officer (NCO) Corps of talent and immediately creates a hole in the Army's enlisted force that must be filled.[6] Increasingly, OCS-IS candidates are non-commissioned officers in whom the Army has invested years of training and education. Seasoned NCOs cannot be created overnight—replacing each one entails significant training and recruiting costs for the multiple soldiers which will eventually yield one new sergeant.

Second, as the Army increases the number of OCS-IS officers, it must reach deeper and deeper into its pool of sergeants to create new officers. As a result, the share of OCS-IS candidates with a U.S. Armed Forces Qualification Test (AFQT) score below Category II has increased from 15 percent in 1997 to 35 percent in 2007 (see Figure 5). This is significant because the AFQT score is used to determine basic qualification for enlistment, and to help predict future academic and occupational success in the Armed Forces. AFQT scores are not raw scores, but rather percentile scores

indicating how each examinee performed compared to all others. Thus, someone who receives an AFQT score of 65 (the Category II threshold) is in the top 35 percentile of all examinees. Therefore, an increasing share of OCS candidates below Category II means that officers with a reduced likelihood of academic or occupational success are being commissioned in greater numbers than before.



Data are from the *Total Army Personnel Data Base*.

Figure 5. Changes in OCS Demographics Over Time

At the same time, the U.S. Army has increasingly drawn senior NCOs into OCS. In 1997, only 15 percent of OCS-IS candidates had more than 10 years of enlisted service. By 2007 that percentage had tripled to 45 percent, and a full quarter of these were Sergeants First Class. This increasing reliance on senior NCOs also brings OCS into direct competition with the Warrant

Officer Corps, which has traditionally relied upon the NCO Corps as its feedstock.[7]

Not only is the Army commissioning officers from the ranks who have lower AFQT scores, but it is also bringing in older soldiers who are well on the way to their 20-year retirement mark. Accordingly, many of these OCS-IS officers will be eligible for retirement before reaching the rank of major, which does little to help fill the Army's shortages at the rank of major and lieutenant colonel. As for officers commissioned through the OCS-EO, which now comprise 50 percent of all OCS commissions, they retain on active duty at lower rates than West Point and 4-year ROTC scholarship officers, the very population they were to leaven with higher continuation rates. Again, this does little to help fill the persistent shortage of mid-career officers. Lastly, by shifting almost 45 percent of ROTC's commissioning mission to OCS, the Army has forfeited its ability to rely upon OCS as a quick-turn source of additional officers in the event of a national crisis necessitating its rapid expansion.

Our examination of symptoms thus far leads us to two intermediate conclusions: First, the war did not cause them—the shortage of mid-career officers, low officer continuations, increases in promotion rates, and the shift towards OCS and away from ROTC began in the mid-1990s. For example, Figure 4 shows that the shift from ROTC to OCS began in 1998, some *5 years before* the start of OIF and *8 years before* the expansion of the force. Second, these symptoms came about by inches. We could not uncover evidence to suggest any specific strategy or deliberate action on the part of the U.S. Army to create these outcomes.

ROOT CAUSES

Many of the symptoms of an at-risk Officer Corps were magnified by "corrective measures" that exacerbated rather than eliminated them. This is because the root causes of the problem were not understood. For example, to remedy the shortage of mid-career officers, the U.S. Army increased its production of lieutenants (see Figure 1). Rather than addressing the underlying problem of lower continuation rates, however, over-accessing new officers actually magnified the problem because the Army hired excess lieutenants who did not have lieutenant jobs waiting for them. As this continues, it puts pressure on the Army's assignment mechanisms and leads to decreased time in key and developmental jobs for all junior officers, which is likely to increase their frustration levels just as they complete their initial active duty service obligations. Such examples demonstrate that unless root causes are discovered and eliminated, the symptoms of an at-risk Officer Corps are persistent.

Given that most of these symptoms first surfaced in the mid-1990s, we focused our search for potential root causes in the preceding decade. In the 1980s, the U.S. economy was undergoing a fundamental shift from the industrial-age to the information-age. There was a dramatic increase in the demand for high-skilled workers who could complement technological innovations. Jobs shifted from factories to offices, and higher wages followed workers who could process information quickly, manage projects, and solve problems. High-potential junior officers who secured a 4-year scholarship, earned an undergraduate degree through ROTC or at West Point, and spent 4 or 5 years

gaining valuable leadership experience in the U.S. Army were among those in high-demand by the civilian sector. Figure 2 shows officer continuation behavior through 8 years of service sorted by scholarship level.

Also, in response to the demand for higher skilled workers, federal college grants and student aid more than doubled, from $7 billion a year in the early 1980s to more than $14 billion a year in the early 2000s.[8] This created alternative sources of funding for high-potential, college-bound students who might have otherwise turned to the military.

In parallel with these market changes, the Army underwent the post-Cold War drawdown of the early-to-mid 1990s, during which its active component Officer Corps shrank from 91,000 to 69,000 over 7 years.[9] The Army's focus on rapid force reduction and its "peace dividend" meant significant budgetary cuts related to officer accessions, to include ROTC scholarship dollars. In an effort to mitigate the impact of reduced scholarship funding, ROTC moved from a centralized scholarship award system to a decentralized system. In the centralized system, candidates competed on a national or regional level. If awarded a scholarship, they could attend the university of their choice, to include selective and nationally recognized Tier 1 and Tier 2 schools.[10] Under the decentralized system, candidates competed for scholarships at specific ROTC host institutions. As a cost avoidance measure, the Army provided low-selectivity (and thus lower cost) institutions with a higher scholarship quota than higher-selectivity institutions.[11]

Comparatively speaking, the centralized scholarship has greater value than the decentralized scholarship. Decentralized scholarships limit the U.S. Army's access

to college-bound students because some of the schools that the scholarships are tied to may not be in the choice set of college aspirants. The loss of candidate control over school selection likely reduced ROTC's appeal to many high-potential prospects, who had more financial aid options available to them than ever before. In contrast, centralized scholarships expand a candidate's options for attending the best school possible and have the added benefit of incentivizing universities to accept these candidates who bring a guarantee of funding from the government. The move to a decentralized system was symptomatic of an emerging officer management culture focused upon sheer quantity of applicants rather than higher quality applicants.

Once leaders identify and adapt to changing conditions such as the U.S. labor market and the drawdown, program management errors such as the one described above can be fixed relatively quickly. Something that cannot be corrected as easily, however, is the drawdown's deep reduction in officer end-strength requirements, particularly among lieutenants and captains, whose ranks were thinned by 1,681 and 8,959, respectively.[12] This stemmed from a strategic decision to abandon forever the notion of a professional force that could serve as the nucleus of a rapidly expanded conscript army. If future conflicts would be won with a wholly professional army, then a "strategic overhead" of active duty officers would no longer be needed to leaven future conscript formations. This decision allowed the U.S. Army to make deep cuts in the Officer Corps' active strength.

Although this drastic reduction increased short-term savings, it engendered substantial long-term consequences. Unlike corporate America, which can

expand or contract relatively quickly, the Army's developmental structure and mission necessarily limits lateral entry. Consequently, it is unable to quickly grow in its mid-to-upper ranks; it takes 10 or more years to develop these officers. In a rapidly changing world, this significantly hampers the Army's ability to adapt.

SOLUTION CONTEXT—UNDERSTANDING THE LABOR MARKET

John Wooden, the iconic University of California-Los Angeles (UCLA) basketball coach who won 10 National Collegiate Athletic Association (NCAA) championships in 12 years, said that "sports do not build character . . . they reveal it." In much the same way, the GWOT has tested the U.S. Army's officer management practices. Prior to the war, the Army simply accommodated the risk associated with a mid-career officer shortage. However, that shortage was brought into sharp relief via the crucible of combat, magnified by the conversion to modular brigades, and further increased by the Army's growth by over 74,000 soldiers. In short, the war revealed that the Army's existing officer management paradigm is unequal to the times. That paradigm is characterized by industrial-era manpower management practices, incrementally modified and inherited from a conscript force. Prior to the end of the draft in 1973, this was not an issue, as the nation conscripted whatever talent was necessary to prosecute a war. Since that time, however, the U.S. military has had to compete for talent in the highly competitive U.S. labor market.

Understanding the market in which the Army competes is central to understanding the importance of U.S. Army accessions. As a result of the limited lateral

entry discussed above, the officers that the Army accesses today are the feedstock for its senior leaders in the next 30 years. Because of this, the Army must evaluate each new officer not just for his or her potential as a lieutenant, but as a colonel or a general as well. This is why the U.S. Army cannot accept risk in its Officer Corps—the consequences are generational in scope, far reaching and enduring. By accessing and promoting lower talent today, the Army pays a price in less competent officer leadership tomorrow, a problem that takes years to rectify.

Since the U.S. Army cannot possibly know what specific officer competencies will be demanded 25 years from now, the best way for it to mitigate risk is to continuously access and retain *talent*. Talent goes beyond attitude or desire, beyond will and skill, beyond tolerance, compassion, values and character. Army officership demands all of those things—they are non-negotiable. Talent, however, adds the critical dimensions of intelligence, of aptitudes for rapid learning and adaptation. Talented officers have powers of reasoning to discern quickly patterns of activity within new situations, and can conceive alternatives to address situations for which they have never been specifically trained. Talented officers leverage these innate aptitudes to become expert in the competencies to which they are drawn. These may range from deep technical skills to broad conceptual or intuitive abilities, all of which the Army requires.

The U.S. Army should access officer candidates who possess these aptitudes rather than hoping to impart or discover them later. Accessing talent is like mining diamonds rather than coal. While both have value, diamonds are multifaceted and enduring. They can be

refined and polished to increase their value, which can then be used to recapitalize the future Officer Corps.

Operating from the basis of inherited practices, however, the Army has not focused upon that future. As a result, the demands of the present have crowded out strategic planning to ensure its Officer Corps is equal to future challenges. In its 2007 review of officer accessions, for example, the U.S. Government Accountability Office (GAO) faulted the U.S. Army for its lack of an integrated and centralized approach to drawing new officers into its ranks:

> The Army's traditional approach has been to rely first on its ROTC and academy programs and then compensate for shortfalls in these programs by increasing its OCS accessions. . . . [The] Army's three accession programs are decentralized and do not formally coordinate with one another, making it difficult for the Army, using its traditional approach, to effectively manage risks and allocate resources across programs in an integrated, strategic fashion. Without a strategic, integrated plan for determining overall annual accession goals, managing risks, and allocating resources, the Army's ability to meet its future mission requirements and to transform to more deployable, modular units is uncertain.[13]

As we have seen, the lack of a coherent officer accessions strategy certainly impairs the Army's ability to create and sustain an Officer Corps equal to future requirements. Accessions, however, is just one of four interdependent activities that we believe are critical to delivering effective Army leadership. These activities also include developing, retaining, and employing officer talent. Therefore, we argue that the Army

requires more than just the officer accessions strategy called for by the GAO report. Rather, it requires a comprehensive Officer Corps strategy that both accounts for and leverages the interdependence between these four central activities.

TOWARDS AN OFFICER CORPS STRATEGY—AN OVERVIEW

As a first step in developing an Officer Corps strategy, senior leaders must agree upon their strategic objectives, for "there is nothing which rots morale more quickly and more completely than . . . the feeling that those in authority do not know their own minds."[14] It is sometimes hard to divine just what the U. S. Army wants in its officers. For example, annual Army accessions guidance contains quantitative commissioning objectives for ROTC, West Point, and OCS, but is silent regarding qualitative officer competencies, abilities, or aptitudes.

Despite this shortcoming, senior Army leaders have expressed qualitative requirements for officers in other documents such as the Army Strategy; the Army Campaign Plan; the Army Posture Statement; and Field Manual 6-22, *Army Leadership*, using terms such as "multiskilled" or "adaptive." Multiskilled refers to leaders who embody a broad range of competencies beyond those narrowly associated with combat operations, whereas adaptive was perhaps best described by General George W. Casey, Jr., Chief of Staff of the U.S. Army, as officers who find themselves in "unfamiliar situations and figure things out."[15]

By repeatedly expressing the need for officers with deep competencies and aptitudes for rapid learning and

adaptation, the Army is actually articulating its vision for an Officer Corps strategy. In essence, it seeks *talent*. To get it, however, the Army's officer management system must embody the same adaptability it demands of its officers. In other words, rather than continuously jamming round pegs into square holes and asking the *pegs* to adapt, the Army should develop the institutional adaptability to place the *right* officers in the *right* jobs at the *right* time.

Such an approach would afford the Army greater depth of officer competencies. It avoids the need for all officers to be multiskilled, which may be unrealistic, as few individuals can become experts in multiple fields. Efforts to engender this type of all encompassing competency normally yield skill sets an inch deep and a mile wide—the old maxim, "Jack of all trades, master of none," applies here. By allowing each officer to specialize in his or her areas of expertise, however, and by building an institutional capacity to employ their talents at the right place and time, the Army still achieves a multiskilled capability but with much greater depth of competency. Thus, the object of the Army's Officer Corps strategy should be a distribution of talent, some with deep, specific, and varied skills, others with broad general skills, and a talent management system that can employ this diverse talent efficiently.

Effective talent management reinforces and links officer development, retention, and accessions programs. For example, assigning officers to positions leveraging their innate and acquired competencies can directly improve officer career satisfaction and success, which in turn can extend the service of high-potential leaders and also attract additional talent. Therefore, an effective Officer Corps strategy recognizes the

interdependency of accessing, developing, retaining, and employing officer talent. It acknowledges the need for institutional adaptability to foster and benefit from deeper officer competencies. Lastly, it creates an environment in which talent attributes evolve and grow over time.

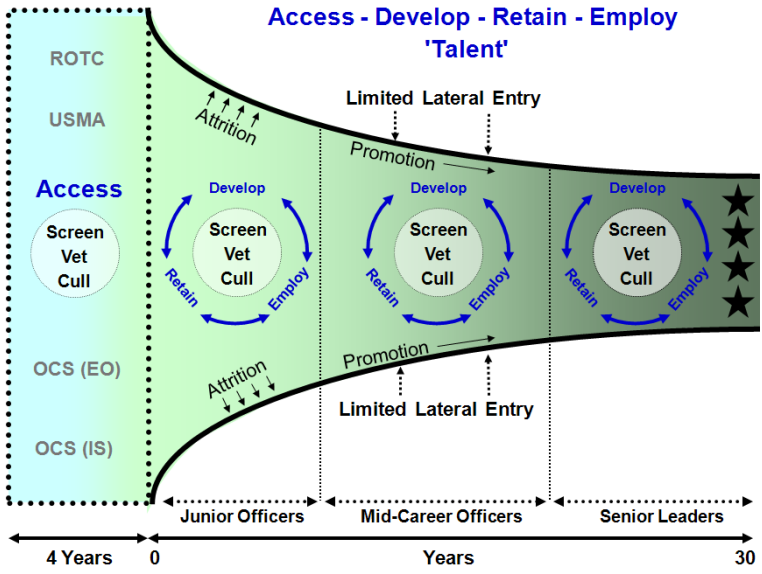


Figure 6. Proposed Officer Human Capital Model

Figure 6 is a graphic depiction of our proposed officer human capital model that supports such an officer corps strategy focused on talent. As each cohort of new officers progresses from the junior ranks toward senior leadership roles, they will arrive prepared for those roles only if the Army understands and leverages the linkages between the critical activities of "accessing, developing, retaining, and employing" talent. Properly executed, each of these activities is mutually reinforcing

and will ensure that from lieutenants to four-star generals, the U.S. Army possesses not just the right number of officers, but also the right distribution of those officers. It will also ensure that collectively, the Officer Corps has the breadth and depth of competencies both demanded by the present and anticipated for the future.

Our proposed human capital model focuses upon officer talent for an army that must be adaptable to changing internal and external labor markets, and in the context of an all volunteer force. Before considering each of the model's components in greater detail, however, we first provide a theoretical framework for leavening officer talent through the process of "screening," "vetting," and "culling."

SCREENING, VETTING, AND CULLING FOR TALENT

Screening takes place at the start of the officer accessions process and entails the evaluation of officer candidates against accepted measures of aptitude. The Army must put significant energy into screening since it must later devote resources to developing, employing, and retaining all those who gain entry to the Officer Corps. Screening is perhaps the highest value activity of the accessions process as it determines both the level at which officer development can begin and the pace at which it can proceed. Effective screening requires a suitable (in both quantity *and* quality) pool of applicants from which to draw talent, as well as appropriate screening standards. Without standards, screening has little meaning. Similarly, without a suitable applicant supply, screening becomes a rubber stamp. By way of

example in Figure 7A, a notional organization employs screening to draw a relatively more talented pool of applicants into its ranks, shifting organizational talent from an average μ1 (without screening) to an average μ2 (with screening). Note that even the upper tail of the distribution may shift to the right because as the reputation of the organization improves, it can attract increasing levels of talent.

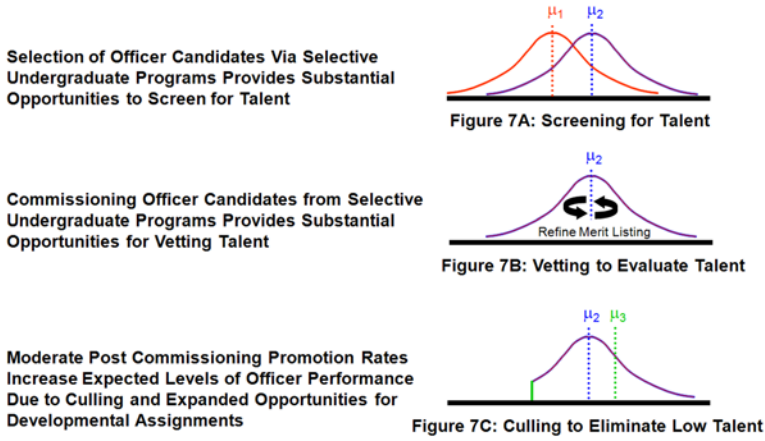


Figure 7. Screening, Vetting, and Culling for Talent

Vetting is the means by which the Army's pre-commissioning organizations validate the fidelity of talent assessments made during the initial screening process. Once enrolled in ROTC, West Point, or OCS, these organizations can evaluate candidate performance and potential under circumstances more closely approximating those in which candidates will serve as officers. Vetting also provides the first real insight into each employee's potential for retention, development, and advancement. As shown in Figure 7B, this allows organizations to reorder their appraisal of employee

talent. In the context of pre-commissioning sources, vetting allows the Army to establish an accurate order of merit listing for its potential officers.

Culling draws upon the reordering accomplished by vetting. Through culling, organizations can reward and advance high-performing, high-talent candidates and officers and retrain or release those with lower-performance or potential. Early culling of low-potential candidates and officers can reduce retraining costs, focus talent development efforts, and raise the average level of talent within an organization. However, extensive culling can indicate inadequate screening, raise accession requirements, and increase costs. As illustrated in Figure 7C, culling seeks to shorten the lower tail of an organization's talent distribution and thereby raise average talent levels above those achieved with screening at μ_2, to some higher average, μ_3.

From the board room to the gridiron, screening, vetting and culling are fundamental to the development of high-performance teams. For example, in the case of professional American football, bench building begins with a draft. Teams seek to acquire those players who have distinguished themselves in performance dimensions associated with success in the "pros." To account for the variance in player talent across colleges of different size, within different conferences, and with schedules of varying difficulty, professional recruiters focus upon drafting players with superior standing in national rankings. In this way, teams begin the work of bench building with exceptional feedstock. Those that fail to draft exceptional talent face an uphill battle to create a competitive bench.

During pre-season, coaches reassess the talent of the players who made it into their programs. They also

hone player talents, array them from first string to bench warmers, and meld them into a high-performing cohesive unit. Development and vetting occur continuously and in parallel so that teams can cut their weak players and focus upon the development and employment of their strongest players. By the time regular season play begins, the process of screening, vetting, and culling yields a team with a much higher talent average than its initial pre-season bench.

Just as changing requirements force professional football teams to constantly reevaluate a player's talent throughout his career, so too must the U.S. Army continually vet and cull talent throughout an officer's career to ensure that the Army keeps pace with evolving talent requirements. In fact, the Army's officer human capital model, which necessarily precludes significant lateral entry, makes proper screening, vetting, and culling imperative. While a football team can sign a free agent or trade with another team for talent, the Army can only employ the talent that it has accessed, developed, and retained. Consequently, it must seek ways to screen, vet, and cull talent throughout its officer human capital model.

ACCESSING TALENT

Although bringing in high quality accessions is important to any organization, the limited lateral entry in the U.S. Army's officer labor model makes accessions particularly important. To provide the United States with an officer corps of high-performing, adaptive leaders who possess deep competencies in leadership, decision-making, risk management, foreign cultures, engineering, and the like, the Army must screen, vet,

and cull for talent as part of its officer accessions process. It can draw talent from its enlisted ranks, from the nonmilitary pool of young Americans who are college bound, or from those who recently graduated from college.

As discussed earlier, while commissioning soldiers from the ranks provides a path for drawing high-potential talent into the Officer Corps, it also depletes the pool of talent from which the Army builds its bench of NCOs and Warrant Officers. To put this in perspective, the Officer Corps is 20 percent the size of the enlisted force, and yet significantly larger than the existing pool of college-educated enlistees.[16] However, the population of college bound or college graduate civilians from which the Army can compete for officer candidates is far larger. In fact, the entire active component Officer Corps currently represents less than 5 percent of the stock of recent male graduates from college. Additionally, this pool best embodies the rapid learning, development, and adaptive skills the Army seeks in its officers. Lastly, the tiered ranking of America's universities provides a valuable screening, vetting, and culling function.

Maximizing the acquisition of these desired skills and aptitudes, however, requires that the Army deliberately establish and closely monitor appropriate screening, vetting and culling mechanisms. It can thereby narrow the range of officer candidate talent around a higher average and avoid the developmental costs associated with unsuitable candidates *prior* to commissioning.

Unfortunately, the Army's current approach to accessing officers, arrived at by inches rather than via an overarching strategy, does not screen, vet, and cull in

ways that systematically leaven the quality of the Officer Corps. For example, across and within commissioning sources, screening, vetting, and culling occurs against widely disparate standards, with the primary objective of achieving quantitative accession goals. This approach engenders substantial variation in terms of the quality of officer talent entering the Army. In turn, this quality variation places a burden on both the "Generating" and "Operating Forces" in terms of compensatory developmental costs and retraining.[17] To the extent that an army tolerates such variance in officer candidate talent, it must incur either high levels of attrition in training among lower performing candidates (the "tail" of the talent distribution) or reduce leader development goals and retard the development of its higher potential candidates.

The relatively recent reduction of active component OCS from 14 weeks in 2006 to 12 weeks in 2007 may be an example of such a reduction in leader development goals. While it is too early to draw any final conclusions, the near-term cost savings provided by OCS course compression may eventually be eclipsed by much higher post-commissioning developmental and employment costs. In other words, this example shows how strain in the Operating Force to meet the demands of the GWOT can quickly transfer to the Generating Force. As the Generating Force modifies standards, the Operating Force is apt to experience further stress from lower-talent officers.

However, an accessions program executed within the framework of our officer human capital model should present the U.S. Army with a positive sum game in terms of talent acquisition. For leaders accustomed to allocating talent within and across units under their

control, this can be a foreign concept.[18] A senior Army leader recently recounted his experience with creating test units using a disproportionate mix of high-performance soldiers. He supervised a particularly confident battalion commander who asserted he could dominate every engagement during a National Training Center (NTC) rotation if permitted to create an "ideal" unit of hand-picked soldiers and officers.[19] The battalion commander was correct—his "ideal" unit dominated the NTC's resident Opposing Force ("OPFOR") in every engagement. Notwithstanding such impressive results, the senior leader deemed the test a failure because the fixed level of talent that he could allocate among his units made the redistribution of talent a zero sum game. By creating the "ideal battalion," the command had depleted talent levels within other units, making them significantly less effective. However, unlike talent distribution within Operating Force units, the accessions process presents a unique opportunity to increase average talent levels in *all* units. The increased acquisition of talented officers now can directly translate into higher levels of talent distribution later, particularly if officer retention, employment and development are pursued with equal diligence.

DEVELOPING TALENT

As illustrated in Figure 6, development of officer talent occurs throughout our entire officer human capital model. Institutions of higher learning provide the foundation, as all officers must possess an undergraduate degree or must obtain one within 3 years of commissioning. Officer talent development continues primarily via additional civil schooling, training with

industry, the U.S. Army's Officer Education System, mentorship and peer relationships, and operational assignments. Thus, when senior Army leaders call for adaptable and competent officers, they are referring as much to the talent that the Army develops as they are referring to the talent it accesses.

As we defined talent earlier, it spans multiple dimensions such as intellect, attitude, motivation, discipline, and several others. Therefore, screening criteria at the point of accessions must account for the "whole" candidate. If the Army does this well and brings in new officers with the requisite dimensions of talent, it can then focus its developmental efforts upon continuing education, training, experience, and tenure.

Differentiating between education and training is critical. While both are important for officers, adaptability is more closely linked with education. Education teaches officers *how* to think. Well-educated officers do not need a play book when introduced to unfamiliar situations. They can quickly assess the environment and make decisions that lead to desired outcomes. By comparison, competence is more closely linked with training. Training teaches officers *what* to think—how to respond to familiar or anticipated situations. Training can take place in either specific or general skill areas. Specific training is unique to the profession of arms, such as throwing a grenade. This type of training is not readily transferrable to the civilian sector. In contrast, general training such as language training has direct application outside of the Army. In short, the development of officers must entail a combination of continuing education, specific, and general training to maintain and increase requisite talent levels.

While education and training provide development in a theoretical construct, experience and tenure provide development through direct application. The U.S. Army is well-regarded for its ability to impart leadership, management, and administrative skills. Most of these are acquired through hands-on experience in day-to-day assignments. For example, a platoon leader assignment provides experiences in multiple dimensions of leadership. In addition, compared to peacetime platoon leadership, wartime leadership accelerates a lieutenant's opportunities to directly apply his or her education and training.

Tenure has important implications for the depth of experiential development and suitability for future assignments. The Army's current assignments model envisions officers with many talents rooted in varied experiences from platoon leader to battalion adjutant (S1) to battalion logistician (S4). Given relatively rigid time constraints at each rank, this model prioritizes breadth over depth in skills. At the other extreme, lieutenants with lengthy-tenured platoon leader time will not have had as many experiences in staff positions. Those with greater tenure as platoon leaders are likely to have finely-honed direct leadership skills that will serve them well in company command. They will not, however, have had as much experience in the supply and personnel aspects of company command.

Clearly, there is a trade-off between breadth and depth of experience, but the Army must avoid running to a "corner solution" by declaring that everyone should be either a generalist or a specialist. Rather, it should seek a distribution of talent, with some of the generalist variety, some of the specialist variety, and some falling between the two. This should not be confused with the

Army's current officer "career field" model, which focuses almost exclusively upon expertise gained in graduate programs and organized for relative ease of management. We argue that the Army should seek a distribution of talent between *and* within career fields.

Unfortunately, a great deal of officer development unfolds without regard for its need or application because the U.S. Army has not clearly articulated its enduring or emerging requirements in engineering, marketing, cultural geography, enterprise management, decision sciences, social sciences, behavioral sciences, business transformation, environmental science, and a host of other fields in which officers continue to build deep competencies. As a result, the Army exerts little direct or indirect influence upon the development of noncombat-related officer competencies. A case in point is the growing number of mid-career officers who will soon undertake graduate degree study under the auspices of the pre-commissioning "graduate school for service" incentive program. In so doing, they will develop deep talents with little consideration or awareness of which ones the Army may actually require.

RETAINING TALENT

While continuing developmental opportunities ensure that U.S. Army officers possess the requisite talent for success at all levels, this can only take place if these officers remain in service. As discussed earlier and illustrated by Figure 2, the Army's most difficult retention challenge appears among high-potential, seasoned junior officers. Having completed their initial service obligation, these officers serve at will. Those not

drawn from the enlisted ranks are typically young, and many have yet to marry and form a household. Consequently, they draw relatively little benefit from the Army's generous family health and quality of life programs. Similarly, they lack longevity, which removes the loss of potential retirement benefits as a barrier to exit. Instead, most talented young officers are confronted by rising opportunity costs, disincentives to continued service.

In part, this is due to significant changes in the labor market over the past few decades. When today's senior Army officers were completing their undergraduate educations, manufacturing workers earned relatively high wages in relatively low-skill occupations. Moreover, these workers aspired to jobs characterized by employment stability over an entire career. Today, the situation is much different. Low-skill workers confront low wages and reduced job security. In contrast, high-skill, information workers seek lifetime employability rather than lifetime employment. They secure this employability by applying their talents to projects that develop their skills. Using social networking websites, online discussion groups, and their mastery of information search strategies, information workers identify new employment opportunities and gain unprecedented job mobility. Given their comparably high productivity, these workers garner relatively high wages in fields characterized by continuous learning. They then leverage this learning to enhance their employability and avoid skill obsolescence.

Another contributing factor to an officer's rising opportunity costs is the increasing degree to which knowledge creation and technological-change drive

commerce and accelerate skill depreciation. Following commissioning, most officers serve 7 years or longer before reaching positions in the U.S. Army where they can put their undergraduate degrees into practice. By the time officers with competencies in fields such as information technology reach their 7th year of service, many of their specialized competencies will have atrophied through disuse or depreciation due to the creation of new specialized knowledge. By contrast, junior officers' civilian peers immediately put their expertise to use in industry, and progress in building their networks and marketable competencies. Thus, at the completion of their service obligations, junior officers face a decision to continue in the military and risk the further deterioration of their outside option, or to transfer to the civilian sector while they still have a chance to keep pace with their peers.

The allure of the civilian sector is even further enhanced by market forces, which place a premium on high-potential junior officers who have leadership experience. Firms seek talented workers with leadership experience and exceptional potential for rapid learning and innovation. Of course, junior officers are a readily identified source of such talent by virtue of their developmental experiences. Moreover, within this group, young officers who complete a ROTC or West Point scholarship program are attractive to industry by virtue of their selection for these merit-based programs. Their completion of these challenging programs marks them as among the very highest-potential employees, a low-to-no risk hiring proposition. Because the labor market values them so highly, these officers respond to competitive outside offers in significant numbers when their expectations of military service go unfulfilled.

In view of these labor market conditions, the U.S. Army faces a significant junior officer retention challenge as seen in Figures 1 and 2. Absent purposeful action, low active duty continuation rates for its highest potential junior officers can unhinge its efforts to build a high-performing Officer Corps. As described above, excessive loss of junior officers has reduced the Army's discretion over the timing and rate at which it promotes the junior officers it retains (recall Figure 3). This loss of promotion discretion is all the more problematic given that the remaining population increasingly embodies those officers for which there was little screening.

Excessive loss of junior officer talent also reduces the Army's scope to distribute high-potential junior officers across the force. Confronted with a shrinking pool of seasoned junior leaders, the Army must triage requirements by first filling positions that present an immediate operational requirement. Of course, this approach places current requirements ahead of future interests, as Operating Force billets are filled at the expense of the Generating Force. Degrading the Generating Force's ability to bring new talent into the Army creates a downward spiral that further reduces its capacity to weather the strain of current and future demands.

Moreover, excessive loss of talent has caused the Army to increasingly rely upon accessions sources such as OCS-EO. As discussed earlier, shorter duration accessions programs entail very little development, vetting, or screening, and in the case of OCS-EO, produce officers with the shortest continuation rates. This too works against efforts to slow losses of high potential leaders; in the fullness of time, new cohorts of high-potential leaders will face outsized demands upon

their skills as a growing number of their peers and leaders are unable to perform at required competency levels. This prospect, as well as the stresses of a long war, may push the Officer Corps to its leadership tipping point. Beyond the tipping point, retention of talented officers will collapse, robbing the Army of the leadership required to maintain full-spectrum dominance against its adversaries, completely depleting its bench of talent for the future, and requiring perhaps a generation to restore.

At least in the area of junior officer retention, the U.S. Army seems to have developed a positive sum entrepreneurial solution. Beginning in 2006, it began offering continuation incentives to its high-potential officers prior to commissioning. Specifically, ROTC and West Point cadets can agree to incur 3 additional years of obligated active duty service in return for their career branch of choice (infantry, armor, intelligence, etc.), their station of choice, or a guaranteed option to obtain a fully-funded graduate degree at a school and in the discipline of their choosing. The intent of these *pre-commissioning* incentives is to increase retention of those high potential officers that confront the highest opportunity cost and who have exhibited the lowest continuation rates. In this way, the Army avoids the unnecessary expense of offering *post-commissioning* retention incentives to officers who are most likely to continue on active duty without an incentive.

To date, pre-commissioning retention incentives have garnered much higher returns on investment than the broad-based incentives typically offered to junior officers nearing the completion of their active duty service obligations. In fact, high participation in the first 3 years of this program has provided the Army with

approximately 15,000 additional man-years of obligated service and is projected to raise Army-wide 8-year continuation rates from the historical level of 41 percent to 65 percent.[20] By offering incentives that align occupation, assignment, and advanced educational opportunities with the desires of individual officers, the Army has taken a critical first step toward linking accessions, development, employment, and retention.

EMPLOYING TALENT

Although accessions are a pivotal component, employment of officer talent against competency requirements must be the objective of an integrated Officer Corps Strategy. Even if an army could access, retain, and develop the best talent in the world, without efficient employment practices, many of the talent gains would be lost. Furthermore, by employing talent appropriately, accessing, developing, and retaining talent becomes easier—it becomes a virtuous cycle. To achieve effective and efficient employment, the U.S. Army requires the capability to track relevant information on talent competencies and a management system that matches talent to requirements. As is the challenge for many large employers, the Army often accesses, retains, and develops officers with specialized competencies that are largely invisible to the enterprise. This talent is neither well-documented in personnel databases nor organized within any sort of talent management system.

Legacy officer management systems reflect practices inherited from the draft and industrial eras. They are largely designed to facilitate personnel accounting concerned with balancing personnel assets against unit

requirements as one would balance assets and liabilities in an accounting ledger. These practices implicitly value individual officers as interchangeable parts within their branch and rank strata. As such, they accommodated the needs of industrial and draft era personnel managers. However, these systems do not collect, organize or present the types of information necessary to manage talent. The Army must seek ways to move beyond personnel accounting and into talent management.

As opposed to accounting, talent management focuses on officer development and employment. It requires new capacities that can identify officer talent and match it with competency requirements. A first step towards talent management is to develop a platform where officers can communicate their talents. This platform should capture and document officer competencies such as professional certifications, membership in social, educational, professional or international networks, publications, specialized knowledge of an operating area or community of interest, project experience, and language skills, as a member of an ad hoc or virtual team. The platform must have a searchable talent management system within which organizations can readily locate officers with competencies matched to their requirements.

Job matching entails both a mechanism for officers to communicate their unique skills, experiences, and attributes, and a way for senior leaders to identify them. To achieve efficient job matching, the Army must create an internal market in which consumers can demand and suppliers can provide talent. This market would inform subordinate officers of the skill sets that senior leaders demand, while senior leaders would gain increased

visibility over the skill sets that junior officers possess. In keeping with the role markets play in guiding resources to their most effective use, this talent management system would increase the Army's capacity to dominate current challenges and adapt to future requirements. It would provide the enterprise and its subordinate units with greater scope to locate and employ the increasingly diverse and specialized officer talents the Army accesses and develops. By creating such an employment model, the Army would shift its practice from *adapting* individuals for assignments to *matching* individuals against assignments. Accordingly, it can achieve greater depth in individual competencies while still achieving a multi-skilled capability.

The information-enabled job matching described above can be achieved by the U.S. Army with relatively little effort or expense and with a tremendous return on investment. Such an effort should be undertaken quickly, as the existing industrial era assignment system is increasingly unequal to current or future requirements. Today, assignment managers can access little to no information related to competency or talent management. Their personnel ledgers include personal identifiers, dependency data, and promotion and military qualification data, as well as assignment data by unit, location, position, and duration. The ledgers also include source of commission data and education data, such as degrees earned and the degree granting institutions. This is largely the limit of their information.

As a result, organizational capacities to adapt are impaired. For example, the U.S. Army has been called upon to assume broad responsibility for reconstruction operations in Iraq, Afghanistan, and New Orleans.

Efforts to adapt to these new missions have generated considerable demand for officers who are professionally certified to guide structural, hydraulic, geological, transportation, power distribution, and other engineering projects. While the Army carries hundreds of engineer officers on its ledgers, many of them lack the specific competencies required to conceive, plan, or execute reconstruction projects.

Conversely, many engineer officers *do* possess these competencies, but as they stem from developmental experiences outside of those recorded within the current personnel information set, the Army does not "know" who or where they are in time of need. As a result, the Army Chief of Engineers is now seeking to identify engineer officers who have competencies beyond those normally expected of combat engineers in operational units. Absent a competency or talent management system, the Army's Corps of Engineers cannot effectively identify or employ officer talent in a timely manner to speed Army adaptation to reconstruction missions. While considerable engineering talent resides with the Army's inventory of engineer officers, this talent is hidden from view by legacy assignment management systems.

The situation confronting the Corps of Engineers is not unique within the Army. It is repeated every day, across interagency working groups, major staffs, within Army agencies, and throughout deployed commands. Moreover, this situation is not specific to the Army. Rather, as market trends have shifted labor from industrial to service sector applications, industry has found increasing need for systems to manage talent. Today, global firms such as IBM are less concerned with producing tangible products and more concerned with

producing knowledge-based solutions aligned with customer requirements. To produce these solutions, firms must be able to mobilize appropriate employee talents around requirements that can arise at any place and time. These requirements can surface quickly and can embody challenges that demand new approaches, access to extensive social networks, or cultural dexterity.

By comparison, the U.S. Army's capacity to match officer talents to emerging challenges is antiquated. Its legacy personnel management tools were designed to align faces and spaces rather than talents and competency requirements. Today, the Army cannot fully employ talent it expends great resources to access, retain, and develop, nor does it articulate its talent requirements to officers so that they can structure their development in consonance with Army needs. Consequently, in addition to expanding its capacity to access, retain, and develop talent, the Army must greatly expand its capacity to employ the talent embodied by its Officer Corps. Absent this capacity, the Officer Corps' adaptability and effectiveness will be far less than the sum of its parts.

CONCLUSION

More than ever before, the U.S. Army requires an Officer Corps strategy that recognizes and leverages the interdependence between accessing, developing, retaining, and employing talent. Beyond attainment of the right number of officers at each career level, the Army increasingly needs talented officers, those with pronounced aptitudes for learning and problem solving, and whose mental acuity and intellectual agility allows them to master the diverse competencies demanded by

the times. The Army's officer human capital model, which necessarily limits lateral entry at middle and senior levels, makes screening, vetting, and culling for such talent critical.

So, too, the U.S. Army must develop the *institutional* adaptability to employ the right talent in the right job at the right time. In so doing, it will finally move beyond assignment management to a genuine talent management system. We believe that such a system, based upon the principles articulated in this monograph, must be the centerpiece of an Officer Strategy—it is the single best way to eliminate the problems which have challenged the Army's Officer Corps for the last decade, while simultaneously posturing it for future success. A talent management system will position the Army to compete with the civilian market for officer talent. It will translate directly into better officer development and retention through increased job satisfaction. Talent management will also facilitate job matching, which will allow the Army to achieve the right breadth and depth of officer competencies to meet evolving requirements. The Army must commit ample resources, develop appropriate policy, and reevaluate existing organizational designs to this end. Failure to do so may lead to a future in which the U.S. Army is unequal to its share of the security challenges confronting both the United States and its allies.

II

DEFINING OFFICER TALENT

> No two persons are born exactly alike. . . . All things will be produced in superior quantity and quality, and with greater ease, when each man works . . . in accordance with his natural gifts.
>
> Plato, *The Republic*, 360 BC

INTRODUCTION

The U.S. Army has long cherished and consistently trumpeted the need for competent officers. One needs to look no further than the description in Field Manual (FM) 6-22, *Army Leadership:* ***Competent****, Confident, and Agile*. The foreword begins with "competent," the introduction repeats it, and by the end of the manual, the word has been used another 63 times.[1]

Of course, few people would tune into a television program called *America's Got Competency*. Call it *America's Got Talent*, however, and you have the makings of a hit show. A common dictionary definition of talent is a special natural ability or capacity for achievement. Competent, on the other hand, is defined as merely proficient or having requisite or adequate ability. There is nothing wrong with that, but it is little wonder that talent has greater popular appeal. Americans generally will not pay to see a competent comedian. They do not want their favorite sports franchises to sign merely proficient outfielders or quarterbacks. They are uncomfortable leaving their retirement portfolios in the hands of adequate

investment brokers, and they avoid auto mechanics with mere requisite abilities. Americans want, and in fact demand, talent.

This demand becomes even more strident in professions where anything less means life or death. Take, for example, the case of U.S. Air Flight 1549, which ditched in the Hudson River on January 15, 2009, shortly after take-off from LaGuardia Airport. This successful water landing by Captain Chesney Sullenberger saved the lives of all 155 passengers and crew and was quickly dubbed the miracle on the Hudson. Sullenberger was lionized in the press and celebrated in Washington.

Why all the fuss? It was because Captain Sullenberger's performance wildly exceeded any reasonable expectation, and he did something a merely competent pilot simply could not do. In a matter of seconds, he correctly diagnosed the ramifications of a double bird strike, calculated the distance to nearby airports, factored in altitude and population concentrations, and applied the fundamentals of physics to safely land that plane. Training alone could not have assured such an outcome. In a highly complex, fast-moving, and uncertain situation, the talented Sullenberger was able to figure it out.

The nature of their profession demands that officers be able to figure things out just as well as Captain Sullenberger did. The Army has always sought to develop technically and tactically competent leaders, and officer evaluation reports routinely assess these competencies. Recent operational experience, however, clearly demonstrates the need for something more. Officers must embrace new cultures, serve as ambassadors and diplomats, sow the seeds of economic

development and democracy, and in general rapidly conceptualize solutions to complex and unanticipated problems.

This is why America's sons and daughters must be led by talented officers. When teachers lack talent, students do not learn; when car salesmen lack talent, their showrooms stay full; but when Army officers lack talent, Soldiers die unnecessarily and the nation's security is imperiled.

CONTEXT—HUMAN CAPITAL THEORY

A thorough understanding of talent and its implications for a U.S. Army Officer Corps strategy is grounded within the broader context of human capital theory. In his seminal book on the subject, Nobel Laureate Gary Becker argues that employees gain human capital (the ability to produce value in the workplace) through education, training, experience, and medical care, thus increasing their productivity.[2] This increase, however, presupposes two conditions that are not always met: first, that the employees are *good* ones focused upon being as productive as possible; and second, that the employees are working within a competency area that aligns with their human capital.

Michael Spence, another Nobel Laureate, created a useful job-market signaling model. It concludes that the first condition often goes unmet due to *bad* (unproductive) employees, highlighting the need to continuously screen, vet, and cull for talent.[3] This is particularly important in limited lateral entry organizations such as the U.S. Army. The second condition, the misalignment of human capital with the demands of the work place, also requires significant

effort from large organizations with varied requirements like the U.S. Army. We believe that market forces can dramatically improve that alignment and even convert many *bad* employees into *good* ones. And by *good*, we don't mean competent. We mean talented.

In most human capital literature, the concept of talent is handled obliquely at best, with contending notions regarding which employees are actually in the talent pool. One recurring argument makes talent synonymous with an organization's highest worth individuals. In their 2003 work, *The Talent Management Handbook,* for example, Lance and Dorothy Berger characterize these individuals as "Superkeepers," just 3 to 5 percent (by their estimation) of the credentialed, professional employee pool. Superkeepers merit high degrees of investment and training so that they can rise in their organizations to eventual executive leadership. In essence, this talent management concept is focused largely upon succession planning for a select few, rather than upon maximizing the performance of all employees. This approach is fairly common throughout the literature.

Less common, but also present in the literature, is the viewpoint that we advance here: that all people have talent which should be identified and liberated, and that they can dramatically and continuously extend their talent advantage if properly incentivized, developed, and employed. Underpinning this view are works such as Howard Gardner's *Frames of Mind: The Theory of Multiple Intelligences* (1983), or Thomas Armstrong's *7 Kinds of Smart: Identifying and Developing Your Multiple Intelligences* (1999).[4]

Armstrong, for example, defines intelligence as "the ability to respond successfully to new situations and the capacity to learn from past experiences."[5] He argues that employees can increase their market value and productivity if they identify and develop their talents within each of several native intelligence sets first articulated by Gardner: *linguistic; spatial; musical; bodily-kinesthetic; logical-mathematical; interpersonal;* and *intrapersonal*.

Our definition of talent is informed by these elements, but takes a more comprehensive approach. We contribute to the existing literature on talent by introducing a new structure that captures the various dimensions of talent, seeing it as a distribution, and placing it in the context of a strategic labor model.

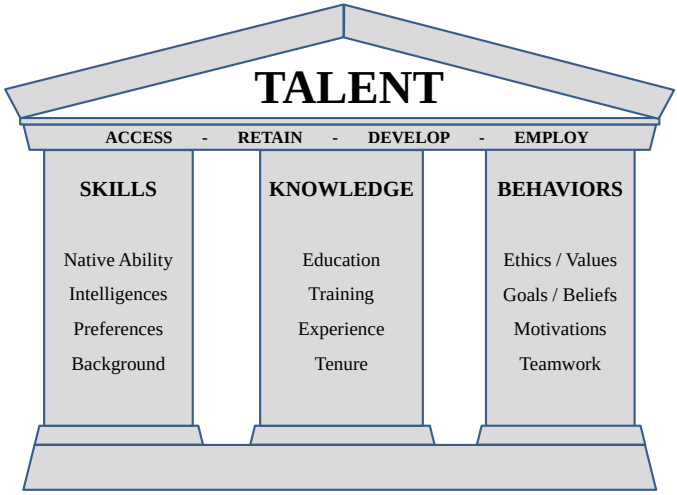


Figure 1. The Dimensions of Talent

OUR DEFINITION OF TALENT

We define *talent* as the intersection of three dimensions—**skills**, **knowledge,** and **behaviors**—that create an *optimal* level of individual performance, provided the individual is employed within their talent set. Figure 1 illustrates how the many views of talent boil down to these three key dimensions.

Moreover, we espouse the critical concept that each person's talent set represents a unique distribution of skills, knowledge, and behaviors, and that each organization in turn has a unique distribution of individuals. For an illustration of this concept, consider Figure 2, whose inset shows one individual with relative breadth of skills, depth of knowledge, and both depth and breadth of behaviors.

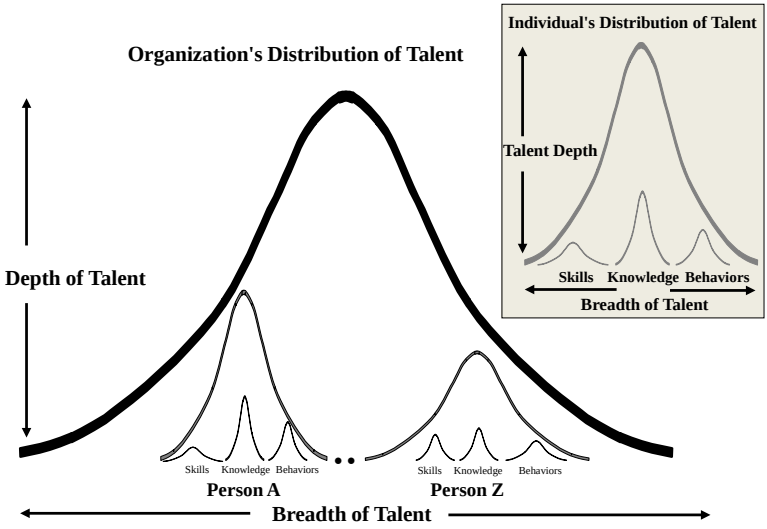


Figure 2. Distributions of Talent

Next, look at the graph for the entire organization, which has a distribution of individuals from A to Z. Person A, with a higher curve, has greater depth of talent, while Person Z, with a wider curve, has greater breadth of talent. By seeking a distribution of officer talent with varying breadth and depth, the Army essentially buys an insurance policy against the uncertainty of future requirements.

Furthermore, carefully managing the intersection of these distributions can dramatically enhance organizational efficiency and success. Integrating this talent concept throughout strategic-level efforts to access, retain, develop, and employ people can create incredible synergy. It is as if the team suddenly gets smarter, faster, and more cost-effective, and productivity zooms.

Although our views have been formulated within the context of the Army's officer labor model, we believe our distillation of talent into three equally important dimensions, distributed across both individuals and organizations, is widely applicable. Understanding how organizations can integrate these concepts into their own human capital strategies requires a deeper examination of the three dimensions of talent.

Skill. In our previous work on the subject, we describe skill as ranging from broadly conceptual or intuitive to deeply technical. We place a premium upon aptitudes for rapid learning and adaptation, reason, perception, and discernment, plus the ability to conceive solutions to unanticipated challenges.[6] We also argue, however, that people manifest these aptitudes most powerfully *in the fields to which their intelligences draw them.*

For example, people with a high degree of logical-mathematical intelligence may be drawn to civil engineering, where they will be able to think conceptually, learn rapidly, and respond effectively to unanticipated challenges, just as those with highly developed linguistic intelligence might perform in the field of journalism. Ask two such people to exchange professions, however, and their productivity may plunge as the journalist wrestles with structural tension and the civil engineer struggles with split infinitives.

As Bruce Tulgan writes in *Winning the Talent Wars* (2001), the unique talent of every employee highlights the need for "creating as many career paths as you have people." [7] No two people possess an identical talent distribution, and as a result employees cannot simply be treated like interchangeable pegs to slot anywhere. As

While Bob and Cheryl have different talents, both can make optimal contributions to Team # 1 if their talents are matched against existing work requirements.

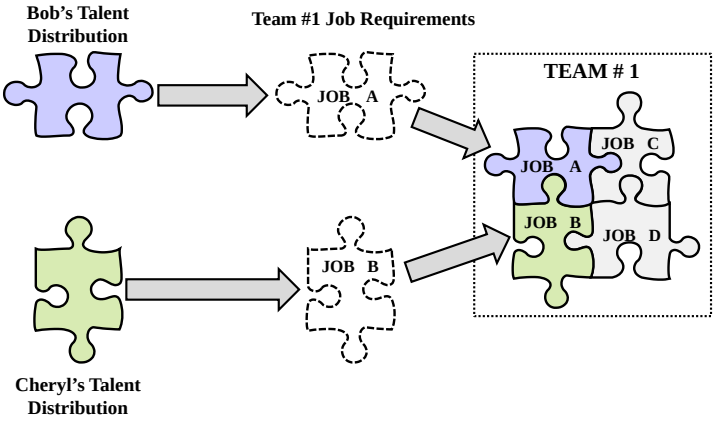


Figure 3. Workforce Talent Matching

Figure 3 illustrates, each person's talent set is unique and multidimensional, more like a jigsaw puzzle piece than a peg. While it takes longer to fit the puzzle piece into its proper position than it does to stick the peg in a hole, the up-front effort is worth it. Puzzle pieces are interlocking, creating powerful bonds within a cohesive whole.

The size and scope of the U.S. Army workforce make it a complex puzzle indeed, and to accomplish its mission, it needs a broad distribution of talent. Breadth affords the Army the flexibility it needs to adapt to an environment with ever-changing requirements. Breadth is only one dimension of talent, however. Organizations require depth as well. Take, for example, Mariano Rivera of the New York Yankees, one of baseball's preeminent relief pitchers, and Albert Pujols of the St. Louis Cardinals, power hitter *extraordinaire*. Each has a unique distribution of talent that must be aligned against his team's requirements. Other than being consummate professionals, they bring fundamentally different talents to bear—Rivera could no more lead the league in home runs than Pujols could in saves. Each of these athletes possesses highly specialized and developed talents that are central to the success of their organizations.

While each professional baseball club clearly needs specialization, each also needs broadly talented utility players. Imagine the results if a team fielded nine specialists like Rivera and Pujols, or nine utility players. Such an approach would land them squarely in last place. To make a run at the pennant, a team needs a rich distribution of talent, both deep and broad, and the management strategy to fit the puzzle pieces together correctly.

This talent distribution concept is somewhat foreign to the Army's officer management culture. Standardized training and promotion gates are designed largely to create officers of one type. Given the uncertain requirements of the future, however, the Army needs a rich distribution of broad *and* deep talent.

*Knowledge***.** The acquisition of knowledge represents the further development of a person's several intelligences, and is thus an extension of their talent advantage. While some knowledge is, of course, acquired via training and life experience, education provides the most important source of knowledge because it also bolsters mental agility and conceptual thinking. It allows people to extract MORE knowledge from their life experiences. Education teaches people **how** to think, not **what** to think. They more rapidly assess unanticipated situations and formulate courses of action leading to desired outcomes. They gain decision-making courage stemming from increased confidence in their own cognitive abilities. In other words, one of the best defenses against uncertain future requirements is an educated labor force.

Consider, for example, an emergency in which a person requires immediate medical assistance, yet only a veterinarian is available. The vet is likely to be *logical-mathematical,* with a talent advantage extended by years of education. His medical talents might not be ideal for the situation, but his ability to conceptualize medical problems and extrapolate solutions to unanticipated circumstances could save the day. Seem far-fetched? Tell that to Ian Bennett, an English farmer recently saved by his veterinarian, Dr. Ed Bulman, after suffering a heart attack while the two of them tended to a flock of alpacas on a remote farm.[8]

Popular culture abounds with stories showing the impact of education and knowledge acquisition upon a person's talent set. A useful example is the Adam Sandler movie, *Happy Gilmore*. In the film, Happy is drawn toward several jobs requiring *bodily-kinesthetic* intelligence because he possesses it in good measure. After striking out as a janitor, gas station attendant, plumber, and construction worker, his innate intelligence eventually draws him toward hockey. He fails to make the team, however, and ends up moving in with his grandmother while contemplating his next career step.

An accidental encounter with two lazy moving men helps Happy to finally discover one of his abilities—he is a talented golfer and can drive a ball farther and truer than anyone on the PGA tour. Despite this, Happy does not become an above average performer until he begins working with a former professional who educates him in the rules of the game. The pro also teaches Happy how to putt, dramatically extending his talent advantage in golf and making him a top earner.

While the movie has a happy ending (of course), employers should definitely try to avoid the Happy Gilmore effect for two reasons. First, Happy discovered his talent set accidentally, whereas employers must systematically develop people to their fullest potential and against specific requirements. Second, Happy's full potential as a golfer went unrealized because he could not conform to the sport's required behavior, as evidenced by his club throwing and shouting obscenities. Happy's experience illustrates that the right proportion of skills, knowledge, AND behavior are critical to creating and maintaining a person's talent advantage.

Behavior. Effective organizations hire not merely for technical and cognitive skills, but also for values, attitudes, and attributes that fit their culture.[9] The U.S. Army has certainly developed and sustained a powerful organizational culture. Its seven official values (*Loyalty, Duty, Respect, Selfless Service, Honor, Integrity,* and *Personal Courage*) are the most visible, but the Army ethic demands dozens of other personal attributes (will, tolerance, compassion, caring, character, candor, punctuality, sobriety, faithfulness, fiscal responsibility, accuracy, courtesy, etc.). For Army service, particularly commissioned officer service, these attributes are essential.

Screening for behavioral fit is more than just values and attribute matching. Officers who live the Army Values, graduate at the top of their class, and can "shoot, move, and communicate with the best of them" will be far less effective leaders if they are conceited, inflexible, go-it-alone types. Put another way, when an organization seeks behaviors that fit its culture, it is also seeking teamwork behavior, marked by the respectful sharing of goals and knowledge with others.

Jody Hoffer Gittell, a professor at Brandeis University, defines teamwork behavior as relational competence—the ability to relate effectively with others.[10] By others, she is referring not only to fellow employees, but to an organization's partners and customers. In the U.S. Army's case, others obviously include fellow Soldiers and the American citizenry, as well as host nation populations and joint, interagency, intergovernmental, and multinational partners.

Gittell describes teamwork behavior as critical to relational coordination, a "mutually reinforcing process of interaction between communication and relationships

carried out for the purpose of task integration."[11] This process is particularly critical in an age of increasingly complex, highly interdependent tasks. In other words, the right behaviors lead to timely, accurate, and problem-solving communication which, when coupled with the right skills and knowledge, creates higher-performing organizations.

Gittell developed and tested her relational coordination theories in the context of health care, long-term assisted-living care, and the airline industry. The test case perhaps most useful to our discussion is her study of Southwest Airlines. This company of over 31,000 employees enjoys industry-leading success in workforce quality (measured via profitability and customer satisfaction) and workforce retention (measured via annual turnover rates). It is a talent focused organization looking for highly skilled and knowledgeable employees, yet it routinely screens out highly credentialed applicants lacking relational competence. It does this not simply because it wants a happy workforce, but because it wants an efficient and productive one. Southwest believes it is difficult to make up for hiring mistakes in the training process—team players are needed.[12]

As teamwork has always been a core component of the Army's institutional culture ("I will never leave a fallen comrade"), it is critical to access, develop, employ, and retain officers with behavior that fits the Army. By fit, we emphatically do not mean an Army of clones who behave identically and with robot-like efficiency. Shared values and teamwork behavior still leave plenty of room for individual styles and personalities.

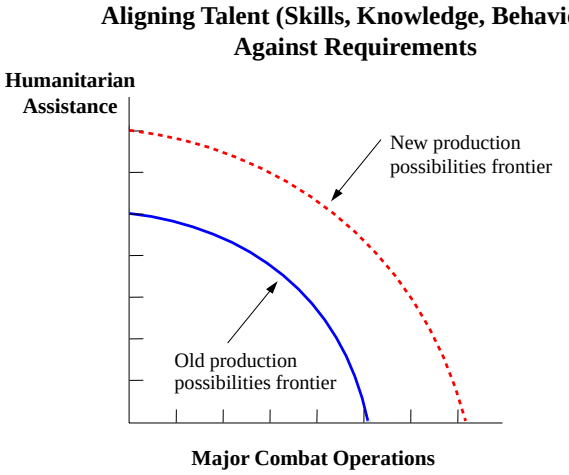


Figure 4. Talent Management Can Lead to Increased Production

Aligning the right mix of skills, knowledge, and behavior against each work requirement can shift the production possibility frontier of an entire organization up and out.[13] Figure 4 shows how the Army can increase its production of firepower and humanitarian assistance with no increase in costs. Conversely, by aligning talent with requirements, the Army can continue to maintain humanitarian assistance and firepower along the old frontier, but with cost savings.[14]

We can summarize our discussion of talent thus far as follows:

1. Talent is the intersection of skills, knowledge, and behaviors, and everyone has it.

2. Each individual has a unique and evolving distribution of talent (his/her talent set)—some deep and some broad.

3. Optimal production occurs when organizations thoughtfully manage depth and breadth of talent over time.

MANAGING TALENT

Assuming that an organization is doing a good job of bringing in talented people, those making significant contributions are most likely working in the right positions on the right tasks. Those who are producing less are probably in the wrong place, doing the wrong things. Instead of disposing of them, the organization may benefit by finding a better fit for them. Getting the right person in the right place at the right time is not an end in itself, however. Talent management has but one purpose: to help an organization achieve its overall objectives.[15]

Leading management scholars argue that the fundamental challenge facing employers in today's economy is the misalignment of talent supply and demand and the risks associated with it. Peter Cappelli, a professor at the Wharton School, describes the problem in terms of cost:

> The greatest risks in talent management are, first, the cost of a mismatch in employees and skills (not enough to meet . . . demand or too much, leading to layoffs) and, second, the cost of losing your talent development investments through the failure to retain employees. These risks stand in the way of the ability of your organization to meet its goals.[16]

Over the last 2 decades, the Army's Officer Corps has certainly confronted these two risks, the former during the draw-down period of the 1990s and the latter from

the late-1990s to today.[17] The Army still relies upon talent pipelines to develop organization men and women who will remain with the Officer Corps for their entire careers (see Figure 5).

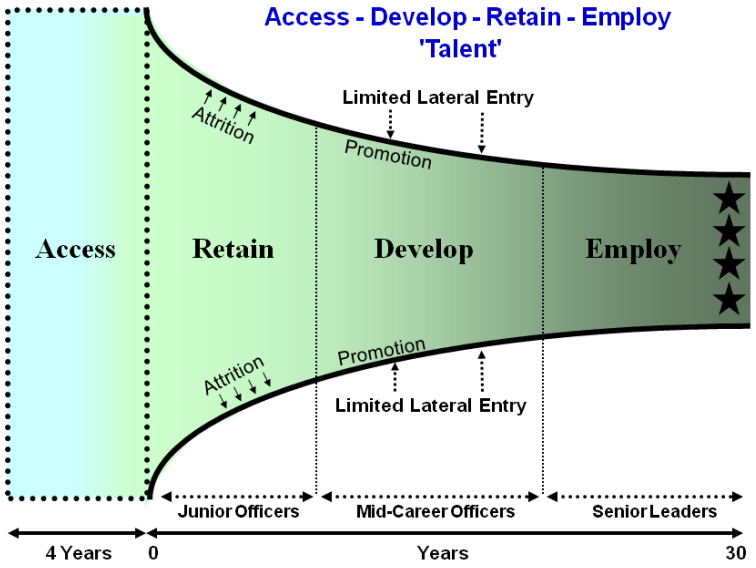
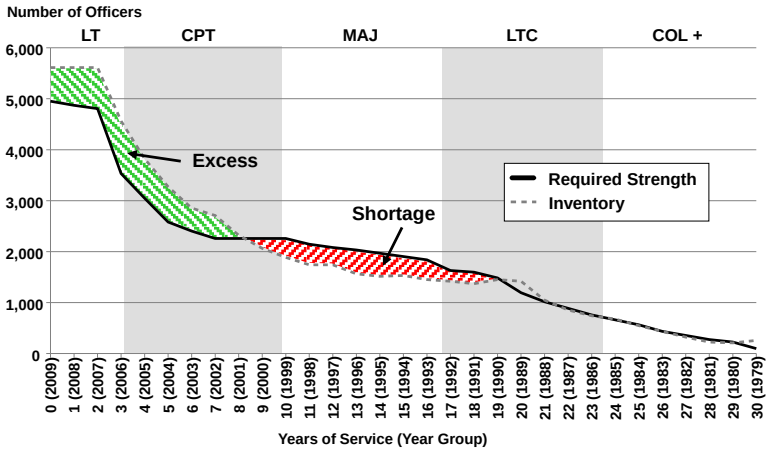


Figure 5. Army Officer Human Capital Model

This practice is increasingly difficult in today's labor market, however. As the last decade has clearly shown, talent pipelines designed to take officers from company grade to general officer level will inevitably leak talent, sometimes severely.

Of these risks (overproduction, underproduction, and leakage), Cappelli identifies talent overproduction as most dangerous. In his view, overproduction fills an organization's bench with employees who become increasingly disgruntled and seek opportunities to get

in the game *elsewhere*, creating a negative work environment that depresses productivity *everywhere*. In other words, overproduction can create talent leakage that becomes contagious within the workforce. The Army may have experienced this phenomenon with the recent over-accession of lieutenants, as shown in Figure 6. As lieutenants receive less time in key and developmental jobs such as platoon leader, they are more apt to find employment outside of the Army where their talent sets will be valued.



*TTHS is included in both the requirements and inventory numbers, data as of 30 Sept 09

Figure 6. Authorized Strength and Inventory for all Officers

Cappelli feels that underproduction, also a genuine risk, is a lesser evil, as companies can always turn to free agent talent to fill labor gaps (in short, poaching talent from other organizations, or buying talent). He concludes that in the current labor market, organizations can mitigate risk in two ways: first, by combining internal talent development and just-in time

talent buying to fill unexpected gaps; and, second, by becoming far better at forecasting talent demand.

Of course, the Army's competitive category officers cannot be purchased from outside because the very nature of the profession makes lateral entry to its core competencies infeasible.[18] General Electric and IBM are not producing rifle platoon leaders or cavalry troop commanders that the Army can hire into its ranks. Faced with this reality, the Army turned to internal talent poaching, pulling more and more senior noncommissioned officers (NCOs) into the Officer Corps via Officer Candidate School (OCS), with a potentially deleterious effect upon both its NCO Corps and its Warrant Officer Corps.[19] The Army has recognized this problem and is actively taking steps to end its over-reliance upon internal talent poaching.

The quandary remains, however—if the Army overproduces officer talent, it risks engendering job dissatisfaction that accelerates talent flight. If it under-produces, it is again short of talent with nowhere to turn. Therefore, the Army must attack its talent management risks with a thoughtful and effective mitigation strategy that keeps its talent supply and demand in careful balance at all times. Beyond relying on education and broad talent sets to mitigate risk, the Army must also make significant changes in officer management policy, practice, systems, and culture.

REVOLUTIONIZING THE ARMY OFFICER CORPS

We believe that thoughtful, evolutionary changes can produce revolutionary results. The Army can transform its officer management practices from those of an almost

feudal employer-employee relationship to a talent-based model through a series of relatively low-risk efforts.

First, the Army needs to create an *internal* officer talent labor market. In our follow-on papers in this series, we will provide specific recommendations on how the Army can meet this need. Second, the Army's human resource culture must change. It should stop managing officers as interchangeable parts, acknowledging that each possesses unique talents suiting them to a particular position at a particular time. Embracing this concept requires the Army to move away from its current industrial-era rotational employment concepts. It must develop flexible management practices that capitalize upon the unique skills, knowledge, and behaviors of each officer rather than expecting each officer to adapt to the constraints of an inflexible system.

These changes cannot take place until the Army accurately determines which skills, knowledge, and behaviors currently reside within its officer corps. To do this, new information technology systems are needed to capture very granular insights into each officer's talent set, which in turn will reveal the distribution of officer talent across the Army. Current personnel data systems may be able to tell us that an officer attended Notre Dame and studied anthropology, but they do not reveal that while in college, the officer also participated in a semester abroad program in Saudi Arabia and wrote a thesis on tribal ancestries in Middle Eastern countries. Furthermore, current Army information systems contain scant information on an officer's skills, knowledge, and behaviors.

Cataloging available talent is not enough, however. The Army must also know what its current and future

talent requirements are. While requirements forecasts are never going to be foolproof, the Army has to try to make them far better than what others have done, that is, to forecast talent demand dynamically and accurately, and to keep supply in sync with that demand. As Cappelli has pointed out, dynamic forecasts, which are continuously updated, have a smaller margin of error than long-range forecasts. Information technology solutions, accompanied by the appropriate changes in operational policy, can do much to create both accurate forecasting and a robust internal market. When forecasts are wrong, as they inevitably will be, previous investments in education will help the organization adapt quickly to fill gaps.

Once the Army finally knows the talent it possesses, it must continuously assess it. An effective mix of skills, knowledge, and behaviors is not static in individuals nor in organizations. The theoretic construct of screening, vetting, and culling for talent, introduced by us in the first monograph,[20] plays a central role in this continuous process. It provides the Army with a mechanism by which it can continually prune its talent to meet evolving requirements. Such a mechanism for continuous assessment is particularly necessary in the Army's Officer Corps for at least three reasons.

First, many of the skills, knowledge, and behaviors that make lieutenants most productive will not be sufficient to make them talented colonels or generals later in their career. For example, colonels and generals (the Army's *strategic talent* segment) require a greater breadth of competencies than field grade (*core talent* segment) or company grade (*requisite talent* segment) officers. In one of the follow-on monographs, we shall

discuss ways to develop talent across the continuum of a career.

Second, the global operating environment is dynamic, continuously demanding new competencies from the Army's Officer Corps at all levels of employment. An equally dynamic domestic labor market compounds the challenge. The last 25 years have witnessed a dramatic increase in the U.S. demand for employees who can create information, provide service, or add knowledge. The Army cannot insulate itself from these changes. It must convert the relationship between its officers and their strength managers from a "relatively closed, information-starved, slow moving, and inefficient relationship to one that is increasingly open, information rich, faster moving, and thus far more efficient."[21]

Third, the way that each generational cohort learns and performs, as well as what it values and how it behaves, is as distinct from the one preceding as it is from the one following. As officers rise to leadership within the Army's strategic talent segment of colonels and generals, they will successfully manage the talents of their junior officers and Soldiers only if they understand, and make adjustment for, these generational differences.[22]

If the Army first understands the dynamic nature of the changing market for officer talent, it can thoughtfully decide which developmental programs best fill the gap between the talent it has and that which it requires. In so doing, the Army can begin to employ its talent with an eye towards productivity and future development of every individual's talent set.

CONCLUSION

We believe that talent is something possessed by everyone. It is the intersection of three dimensions—skills, knowledge, and behaviors—that can optimize the performance of every individual, *provided* they are employed within their talent sets. Each organization has a unique distribution of individuals who in turn possess unique distribution of skills, knowledge, and behaviors (their personal talent set). Achieving optimal organizational performance entails managing talent so that the organization attracts the right talent, develops it, retains it, and employs it most efficiently.

In a series of four follow-on monographs, we will examine each component of our officer labor model in much greater detail: *accessing*, *developing*, *employing*, and *retaining* talent. We will recommend specific, low-risk, low-cost, evolutionary practices that can collectively engender revolutionary change. Such change is necessary to move the Army from industrial-era personnel practices to information-age talent management practices.

Whether it likes it or not, the Army is competing with the private sector for the best talent America has to offer. Remaining competitive in this labor market requires an officer corps strategy that can access, develop, employ, and retain the talent the Army needs to confront future uncertain requirements.

III

RETAINING OFFICER TALENT

INTRODUCTION

The latest global economic downturn has destroyed American wealth to an alarming extent. Declining real estate values have reduced home equity by $5.1 trillion nationally, and millions of people have lost trillions of dollars in the stock market.[1] This grim news holds our attention because we expect our investments to yield healthy returns, not daunting losses. Inadequate or failed investments curtail our prospects for a successful future.

Much like the citizens it serves and protects, the U.S. Army has also made significant investments in its future, especially in its leadership. In particular, the Army has devoted billions of dollars to officer undergraduate-level education, world class training, and developmental experiences. Since the late 1980s, however, prospects for the Officer Corps' future have been darkened by an ever-diminishing return on this investment, as company-grade officer retention rates have plummeted. Significantly, this leakage includes a large share of high-performing officers, many of them developed via a fully-funded undergraduate education.

In the last few years, the Army has responded to this challenge with unprecedented retention incentives, to include broadly offered cash payments. The objective has been to retain as many junior officers on active duty as possible. However, such quantity-focused incentive programs run counter to a talent-focused Officer Corps

strategy. The objective should not be merely to retain all officers, but to retain *talented* officers while simultaneously culling out those lacking distributions of skills, knowledge, and behaviors in demand across the force.

Given the hierarchical nature of the Army's organizations, retaining "sufficient" rather than optimally performing officers could have adverse consequences for the Army's future. New officer cohorts of high-potential talent may be driven away by the prospects of serving under lackluster leadership, while those continuing their service may experience stunted development due to a dearth of talented mentors. Left unchecked, such developments could cascade across all ranks, requiring a generation to rectify and meanwhile significantly undermining the Officer Corps' performance levels. With mutually supporting practices in the realm of accessions, development, and employment, however, a sound officer retention strategy can forestall this talent crisis, allowing the Army to *select* its leaders rather than *settle* for them.

TALENT RETENTION GENERATES BENEFITS AND MITIGATES RISKS

In previous works, we have argued that every person has talent that can be liberated and extended if they are properly employed. This is not to say that all people can or should be retained, however. What kind of officer should the Army seek to keep? The answer is those officers whose individual talent sets best align with current and future requirements.

This is easy to say but tough to deliver, particularly as today's operating environment is increasingly

characterized by high levels of task interdependence, This is easy to say but tough to deliver, particularly as today's operating environment is increasingly characterized by high levels of task interdependence, skill specificity, and uncertainty. It is made even tougher by the fact that, in its core warfighting competencies, the Army cannot "buy" talent from outside. The profession of arms is indeed a demanding profession, requiring a distribution of skills, knowledge, and behaviors that takes years to assemble.

A 35-year-old project manager at Microsoft, for example, may possess an abundance of the general skills demanded by the Army in its core talent segment of field grade officers. He or she will not, however, command the specific knowledge and behaviors required to plan a battalion hasty defense, effectively represent the Army to the news media, predict enemy courses of action, or care for the family of a fallen comrade. Nor will he or she immediately acculturate to a profession unlike any in the private sector, one that employs deadly force within a moral-ethical framework as sanctioned by responsible civil authorities. The officer ethos is honed across a series of progressive entry-level experiences, allowing the Army to observe the degree to which its junior leaders embody it while the scope of their authority is still relatively narrow.

Therefore, whether the Army seeks to expand lateral entry in some areas or not, it is clear that there will always be significant limits on its ability to buy talent from outside.[2] New accessions and internal development processes will continue to generate an outsized portion of the Officer Corps' talent pool. This entails a significant investment that can yield enhanced

force capability and national security, provided the Army retains the talent it needs.

Given that the Army is competing in the American labor market for its officers, its retention strategy must focus upon talent, guard against systematic decision-making errors, redress market failures, and create an employment climate that powerfully meets the expectations of officers with *talents that are in demand*. Figure 1 demonstrates the consequences of failing to balance service expectations against external opportunities in a limited lateral entry organization.

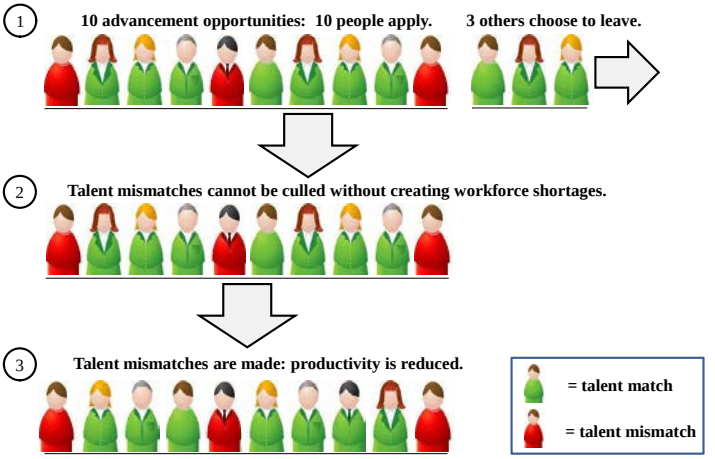


Figure 1. Talent Flight Reduces Workforce Productivity

As we see in Figure 1, talent flight occurs, leading to employment mismatches. This not only reduces productivity, but also lowers morale, raises costs, increases personnel turbulence, and results in *quantity-*

focused rather than talent-focused practices. It runs counter to good talent management.

In contrast, Figure 2 highlights the benefits to an organization of meeting the expectations of its talented workers. The ability to screen, vet, and cull for talent is restored, and optimal productivity ensues.

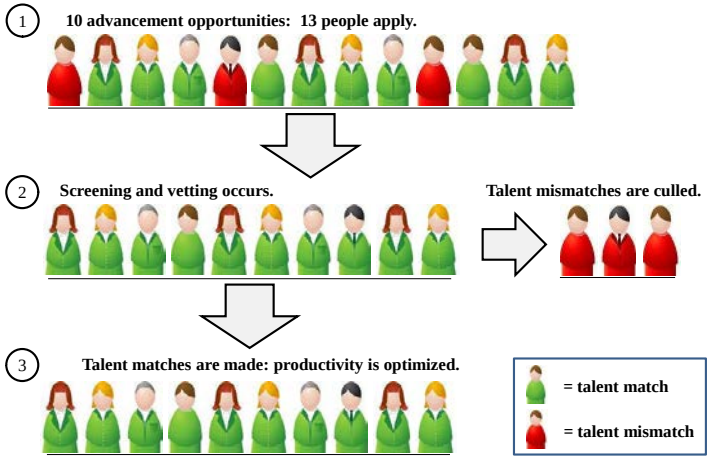


Figure 2. Talent Retention Optimizes Workforce Productivity

In addition to optimizing productivity, talent retention dramatically lowers the costs of internal talent development. The longer talented officers continue their service, the more time the Army has to recoup the costs of their development. Relative to the value of their performance, developmental costs are particularly steep in the first 3 to 5 years of officers' careers, when they receive significant education and training, as well as indirect benefits that are generally on par with those of more experienced (and thus more productive) officers.

Retaining talented officers beyond the 5-year mark (seasoned captains) offsets development costs via increased productivity. It also reduces retraining costs, the administrative costs associated with higher personnel turnover, and the costs of increased accessions to make up for seasoned captain shortfalls.

This last point is particularly important. As the Army has increased lieutenant production to replace the talented captains lost to the private sector, the number of new officers waiting to fill a finite number of platoon leader and company executive officer positions has increased.[3] As job queues have grown, ideal

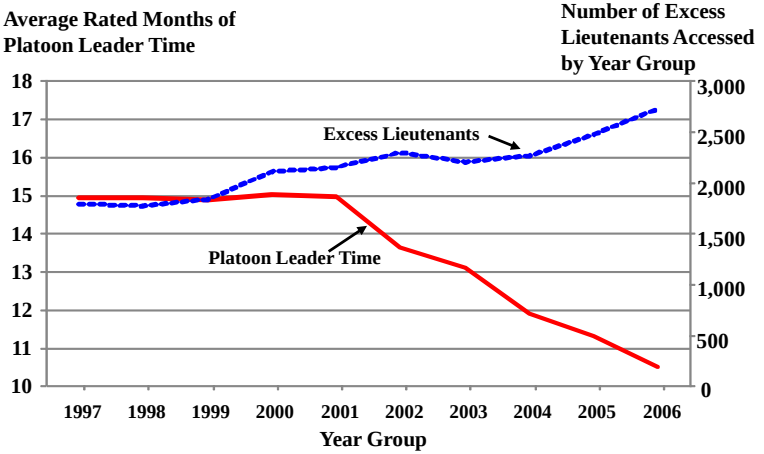
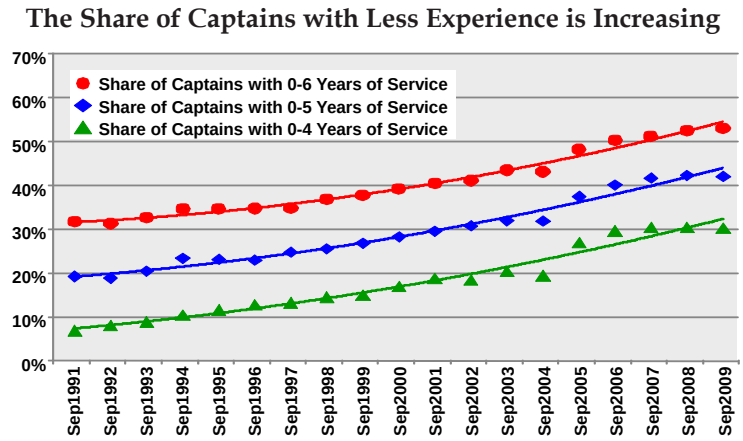


Figure 3. Over-Accessing Officers Is Undercutting Developmental Opportunities for Lieutenants

developmental experiences have declined, and more lieutenants are given make-work duties that deflate their career enthusiasm. Furthermore, as the Army tries to cycle its new officers through a finite number of developmental opportunities, the average number of months served in key positions is being significantly

compressed (see Figure 3). This trend compounds the challenge, reducing opportunities for young officers to benefit from experiential learning, mentorship, and development. Reduced developmental opportunities also mean fewer evaluative opportunities for the Army, making it increasingly difficult to screen, vet, and cull for talent.

A closely related development has been compressed promotion timing. As the Army commissioned thousands of excess lieutenants to replace the captains it failed to retain, it simultaneously shortened time-in-grade requirements for promotion of these lieutenants to captain. As a result, between 1992 and 2004, the share of captains with less than 4 years of active federal commissioned service rose from 8 percent to 30 percent, and fewer than half of all captains had over 6 years of



Note: In FY 2005 the Army changed the "pin on point" to captain from 4 years to 3 years. In FY 2005. Year Group 1994 and half of Year Group 1995 were promoted to major. In FY 2006, half of year group 1995 and Year Group 1996 were promoted to major.

Figure 4. Changing Experience Levels of Captains (in Terms of Years of Service)

commissioned service (see Figure 4).[4] As captain experience levels declined, the Army simultaneously redesignated hundreds of former captain's duties as major's duties, perhaps in part because a captain was now increasingly unlikely to possess the experience needed in certain jobs. Increased losses among high potential junior officers has thus significantly shifted the distribution of captains in the direction of less experience.

In short, low junior-officer retention increases risks to the well-being and capabilities of the Officer Corps. It strips away the Army's ability to screen, vet, and cull for talent, forcing it instead to over-access, increase promotion rates, and compress time-in-grade requirements. It degrades the developmental experiences of junior officers and undercuts the Army's ability to discern which officers possess the talent it needs. In part, these challenges are due to the continuation of human capital management practices from a bygone era.

"COMPANY MAN" EMPLOYMENT PRACTICES CANNOT COMPETE IN TODAY'S LABOR MARKET

The TV show *Mad Men* is a pop culture phenomenon. Set in the Kennedy era, it chronicles life inside a fictional Madison Avenue advertising firm. In 3 years, the show has won several Emmy awards and critical acclaim for its historical authenticity. While audiences are enthralled with the show's accurate depiction of social mores in the 1960s, it does equally well in capturing the corporate culture of the time. This culture includes an ethos of lifetime service to the firm by its employees,

part of the "organization" or "company" man system that held sway in America into the 1980s.[5]

Under that system, companies sought to employ the same workers throughout their entire careers in an effort to recapture training costs and preserve loyalty and continuity. Internal managerial development and advancement were key elements of the system, as were rotational assignments designed to broaden the corporation's highest-potential members, who served as feedstock for its future leadership. Employment decisions were made largely by employers, not employees. Intercompany movement was not unheard of, but it was rare compared to today's fluid labor market. When it did occur, it was often the result of a business failure, merger, takeover, or perhaps a senior management acquisition from an arch competitor to capture business intelligence and clients from the "enemy."

As a rule, however, poaching junior or mid-level talent from competitors was the exception rather than the rule. The DuPont man who showed up at IBM or Pfizer would be viewed skeptically, his loyalty under question for having left the firm that had invested so much in his initial development. Even if the newcomer had understandable reasons for seeking new employment, there was always the question of whether he could surrender the cultural baggage of his last firm to fit in at a new one.

Given such cultural realities, young executives generally sought continuing professional opportunities with their initial corporate employer rather than elsewhere. Healthy pension plans and the generally excellent promotion opportunities of the post-World War II boom period were additional disincentives to

flight. Industrial era firms were highly specialized, creating additional barriers to intercompany talent migration. Because of the low personnel turnover inherent in this business climate, employers' biggest personnel concern was whether they had a sufficient supply of talented employees, and how much internal developmental effort should be expended.

In sum, the company man system embodied human capital management practices far different from those demanded by the information-age economy which emerged in the 1980s. As a result, today's employment market is characterized by high levels of *inter-company* and *inner-company* mobility. Talented employees have far greater control over their career options than ever before, a situation made possible by the overwhelming demand for highly educated employees with talents for conceptualization and knowledge creation.

Because the Army must necessarily limit lateral entry, it will always retain some of the hierarchical and bureaucratic elements of the company man era. As labor market conditions began to change in the 1970s, however, the Army could have jettisoned many of its inefficient industrial era practices and introduced elements of an internal talent market (see our discussion of the Officer Career Satisfaction Program later in this monograph). Giving officers greater voice in their assignments increases both employment longevity and productivity. The Army's failure to do so, however, in large part accounts for declining retention among officers commissioned since 1983.

For example, about 60 percent of officers commissioned in the late 1970s via Reserve Officer Training Corps (ROTC) and West Point scholarship programs remained on active duty through 8 years of

service. As a result, the Army enjoyed an ample supply of seasoned captains to fill key staff positions and could be highly selective as it considered captains for promotion to major. By the mid 1980s, however, only 40 percent of officers being commissioned from these scholarship sources remained on active duty through 8 years of service. As a result, seasoned captains were in increasingly short supply.

Why did the Army's talent management practices remain trapped in the past? How did it move from a senior captain surplus, then to shortage, then to crisis in the decade following the end of the Cold War? In part, it may be because some of the Army's personnel managers missed the epochal innovation embodied by the rise of information technology in the 1980s. Having come of age in the industrial era, perhaps these officers had imbibed too deeply from the company man system. Regardless, as they directed the Army's restructuring in the late 1980s and early 1990s, personnel managers continued to manage talent via outmoded techniques, to include generic forecasting models and indiscriminate quality control tools.

For example, officer strength forecasting models failed to account for the economy's increased appetite for highly-educated workers. Army undergraduate scholarship programs had created talented young officers who were in greater demand than ever before, and corporate America undertook an aggressive talent recruitment campaign to poach them (a practice which continues today). In particular, this demand for highly educated talent drew increasing numbers of West Point and ROTC scholarship officers out of the Army, and by 2001 the captain retention situation was becoming untenable.

The Army had always been mindful of officer retention rates as a function of *commissioning source*—i.e., West Point, ROTC, or Officers' Candidate School (OCS). Such analysis indicated that West Point officers remained in the Army at the lowest rates; ROTC officers remained at middling rates, and OCS officers remained at high rates (see the grey-shaded panel in Figure 5).

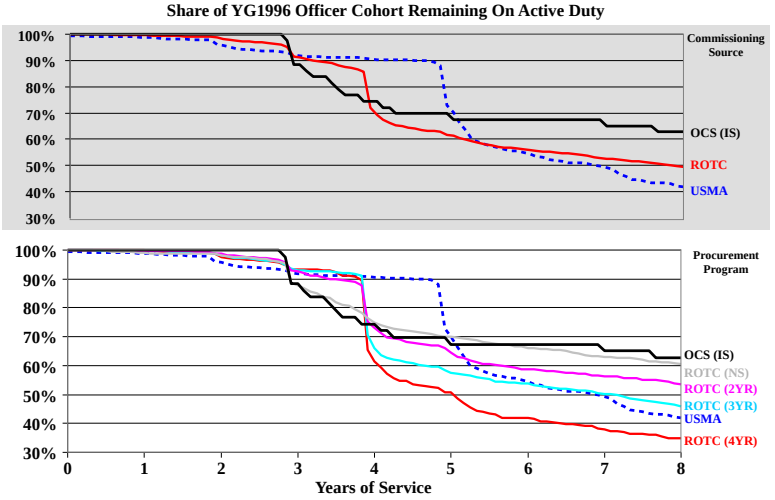


Figure 5. Officer Retention Rates: Commissioning Source vs. Procurement Program

However, when officer retention rates were analyzed according to *procurement program*—i.e., particular commissioning programs with distinct directives, resourcing and contractual obligations—a very different picture emerged (see the white-shaded panel in Figure 5). Four-year scholarship officers from ROTC and West Point remained in the Army at the lowest rates, followed in order by 3-year and 2-year ROTC

scholarship officers, non-scholarship ROTC officers (NS ROTC), and OCS officers drawn from the enlisted ranks (OCS-OS).[6] By failing to anticipate the effect that the information age would have on scholarship officer retention, Army forecasts grossly underestimated the downturn in junior-officer continuation rates that would begin with those commissioned in the late 1980s.

Use of such personnel management practices as voluntary separation further exacerbated the challenge. In the industrial era, voluntary separation policies usually engendered a self-culling by employees who were poor talent matches for their organization. This softened their separation from the company, saved them the embarrassment of eventual removal, relieved them from existing contractual obligations, and often provided a modest financial cushion to ease their transition. In the context of the information age, however, such incentives had a much different effect when offered to Army officers. They opened the door for an exodus of highly educated, high-performing leaders, those the Army had invested the most in and whose talents aligned well with critical employment requirements.

Consider. Beginning with those commissioned in the mid-1980s and continuing through today, West Point and ROTC's 3- and 4-year scholarship officers have remained in the Army at about two-thirds to half the rate of OCS officers from the ranks and ROTC officers without scholarships. Years of peacetime and wartime performance data, however, clearly demonstrate that, once commissioned, the scholarship officers are disproportionately likely to possess the conceptual and problem-solving talent demanded by jobs such as commander, executive officer, or operations officer.

Because high-quality education amplifies experiential learning capacity, this talent advantage grows as these officers move from company grade to field grade assignments of increasing scope and complexity (see Figure 6).

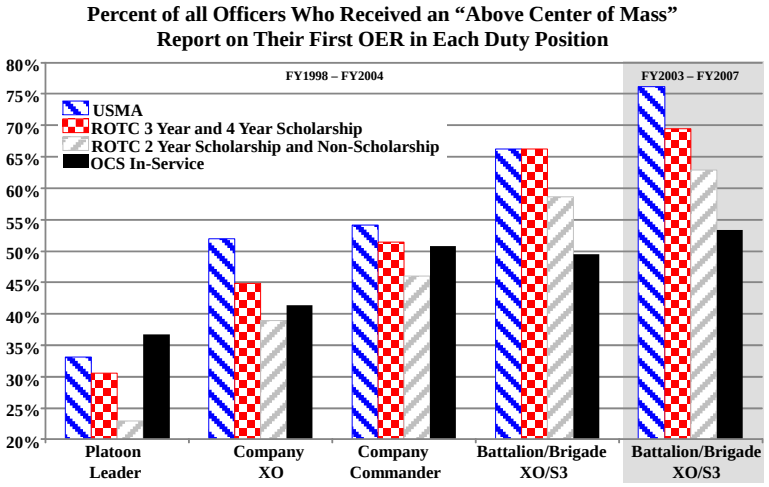


Figure 6. Officer Procurement Program

In other words, the diligent screening inherent in the Army's scholarship programs, coupled with the quality of education generally embodied by those programs, produces officers whose talents align extremely well with complex jobs at the senior company and field grade levels.

Let us be clear—we are *not* arguing that scholarship officers are more talented than others, nor are we interpreting these data to say that individual OCS and ROTC non-scholarship officers cannot perform optimally in these jobs. What we are saying is that as a

population, the performance data for scholarship officers is significant enough to predict their success in jobs the Army deems critical. They are not being retained in sufficient numbers, however, creating talent gaps that simply cannot be filled with "just-in-time" increases in accessions or changes in the accessions mix.

To this day, the root causes of the current officer shortage are still misunderstood by some. To be sure, reduced officer accessions in the mid-1990s and officer structure growth beginning in 2004 did not help matters, but the Army continues to leak officer talent at rates commensurate with those cohorts affected by the 1990s drawdown.[7] Low talent retention is the actual root cause of the challenge. In fact, by 2004, the retention challenge was already well-entrenched, as demonstrated by increased promotion rates, compressed promotion timing, increased accessions, and shifts in the accessions mix.[8]

Each of these developments had undesirable ripple effects. Rising promotion rates reduced Army opportunities to vet officers for advancement. Accelerating promotions limited the time available for junior officers to develop at each rank. Rising accessions against a fixed number of entry-level officer positions reduced the likelihood that job opportunities available to lieutenants would match their developmental needs or expectations (recall declining platoon leader time in Figure 3). Finally, the shift in the accessions mix away from scholarship officers and towards OCS epitomized "time-inconsistent" behavior (pursuing short-term benefits in the face of serious long-term risk, a concept we will elaborate upon shortly). This all but ensured an enduring mid-ranks talent gap, as OCS officers typically

retire from the Army after serving 10 to 15 years of active federal commissioned service.

In retrospect, an effective retention strategy would have provided the Army with a hedge against the dual risks of an increasingly competitive labor market and the vagaries of wartime demand. For example, if such a strategy had maintained officer retention rates at industrial-era levels, the Army would enjoy full manning in its field grade ranks and could reduce new officer accessions by 20 percent.[9] The potential to generate such positive outcomes exists, but to do so the retention component of any Officer Corps strategy must rest upon sound theoretical underpinnings.

THE ARMY MUST BUILD TALENT RETENTION POLICIES UPON SOUND THEORY

Both employers and employees face critical decisions bearing upon talent retention in an organization. For employers to successfully retain talent over the long term, they must avoid *time-inconsistent* decision-making. For employees to make sound career decisions, they must assess the value of the next best alternative to their current employment, also known as *opportunity cost*. Lastly, both employers and employees need a mechanism for efficiently exchanging commodities, but *market failures* often confound their ability to do so. Discussing each of these theoretical concepts within the context of the Army's officer retention challenges should help clarify them.

The Army's Time-Inconsistent Behavior.

As opposed to the rank-stratified representations of the Officer Corps used by Army personnel strength managers, we view officers as talented people moving across time through a funnel-shaped pipeline (see Figure 7).

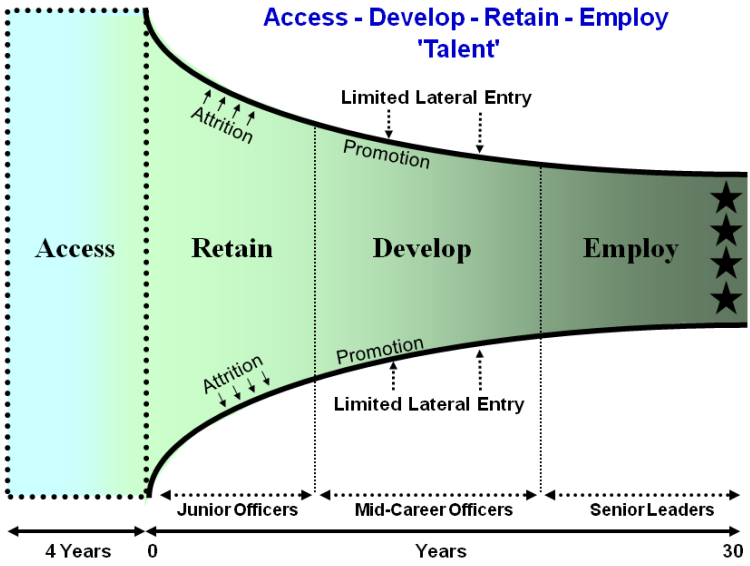


Figure 7. Army Officer Human Capital Model

Time is the critical component of this model, the unifying aspect of a successful long-term officer strategy. *Accessions* decisions made today affect *development* efforts over a 30-year horizon, are closely connected to *retention* rates, and ultimately shape the *employment* of talent in the senior leader ranks some 25 years later. The length of time between officer strategy decisions and their outcomes may at first blush seem irrelevant, but the implications are often far-reaching. In

the 1970s, economists and Nobel Laureates Finn Kydland and Edward Prescott characterized these implications as the "time inconsistency" problem.[10]

Time inconsistency refers to the irrational reordering of preferences as the consequences of our choices become more proximate in time. For example, smokers may plan to enjoy smoking today but quit tomorrow to improve their health. The next day, however, their plan is the same; enjoy smoking today and quit tomorrow. This goes on, and they may never quit even though they want to, hence the inconsistency. The risks of this behavior are tremendous because while benefits accrue immediately (the pleasure of smoking), costs accrue well into the future (lung or heart disease, death).

Similarly, because it unfolds across decades, the business of building an Officer Corps is ripe for time-inconsistent behavior, and the Army has fallen victim to it. In fact, for the last several years, the Army has implicitly accepted near-term benefits in exchange for long-term risks to the Officer Corps. One example was the end of forced distribution ratings for lieutenants and captains, which occurred in 2004. Eliminating forced distribution ratings made it extremely difficult to distinguish high-potential officers from the others, the same challenge the Army faced on the eve of World War II.[11]

Another example of time-inconsistent behavior was a significant increase in officer promotion rates. When these increases were briefed in the Pentagon in 2004, a senior Army leader responded, "It's a great time to be a captain." In his estimation, the Army's mounting near-term officer shortage clearly trumped the need to vet and cull talent for the future.

By promoting and advancing officers who previously would have been culled from service, however, the Army only accelerated talent flight. Officers forced to serve under lackluster leaders will seek opportunities elsewhere, preferably where talent matters. As retention rates continue to fall, short-term demands will force the Army into additional time-inconsistent behavior, further exacerbating the retention challenge. Eventually the Army could reach a tipping point where the downward spiral accelerates, and its talent core collapses. Much like an individual's time-inconsistent behavior of smoking, the true costs hit unexpectedly in the form of a total breakdown. By then it is too late.

Guarding against time-inconsistent behavior requires significant discipline. In the current environment, most Army strategic leaders direct manpower policy for fewer than three years.[12] This places an inherent emphasis on the now, creating an ideal breeding ground for manpower challenges that will emerge 5, 10, or 20 years into the future.

An Officer's Opportunity Cost.

While it is important to understand how the Army's decisions shape officer retention, it is equally important to understand how individual officers make the decision to stay or to leave. Although economic decision theory has many dimensions, it really boils down to a very simple principle: people choose the option they believe will provide the highest satisfaction. Each of us does this daily: Coke or Pepsi, cream or sugar, stairs or elevator?

The same is true of far weightier decisions. Each officer, whether they realize it or not, routinely weighs

the opportunity cost of his or her service in the Army. In the context of our discussion, "opportunity cost" is the value of an officer's next best employment alternative outside of the Army, an opportunity that is forfeited by the decision to continue commissioned service (see Figure 8).

The Decision to Stay in the Army Weighs Experience-to-Date & Future Service Expectations against Opportunity Cost

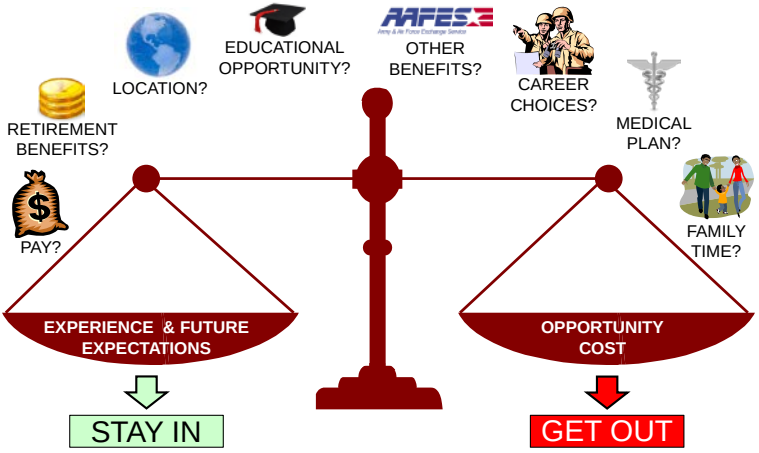


Figure 8. Individual Retention Decision

Factors that may affect an officer's opportunity cost include unemployment rates in the civilian sector, educational opportunities, potential civilian compensation, job satisfaction, and spousal employment opportunities. For the most part, the Army can do very little to influence an officer's opportunity cost—each person's is different, governed by the intersection of his or her talent set with current market conditions. Those with the highest opportunity costs are the ones with the most to gain by leaving the Army. Generally speaking,

these officers possess the talent needed to perform well at the Army's highest levels because, as we have seen, there is a high correlation between the talents sought by the Army and those sought by the marketplace.

Just as officers' unique talent sets shape their opportunity costs, so too do they shape their expectations of military service. As Figure 8 illustrates, an officer weighs his or her opportunity cost against these expectations, which the Army *can* shape via sound policies. Expectations run the gamut from current or anticipated job satisfaction and promotion potential to the value of retirement and insurance benefits, commissary privileges, the scope and quality of family medical care, fully-funded educational opportunities for oneself and one's family, etc. For some, job satisfaction may trump any earnings differential. For others, education benefits may matter most.

While weighing service expectations against opportunity cost seems a fairly straightforward affair, the element of time complicates matters. Market conditions are dynamic. Information is imperfect. Family needs change. For the most part, however, the relative stability of Army policies allows officers to visualize their career trajectories with some accuracy, whereas forecasting civilian sector opportunities is much more difficult. That very predictability gives commissioned Army service a slight advantage in head-to-head competition with potential alternatives. This is why the Army must thoughtfully consider all officer personnel policies—if it unthinkingly introduces career uncertainty, it may forfeit one of its key advantages in today's labor market.

Market Failures and Talent Retention.

A market failure exists when there is an inefficient use of goods or services and a better outcome is possible. Correcting market failures via thoughtful policies often yields tremendous efficiencies, with gains far outweighing losses. One example of a market failure is a *missing market*, the lack of an efficient way to exchange a service. Bureaucratic organizations such as the Army are often riddled with missing markets, but the one most germane to our discussion is the missing officer talent market.

Most officers desire an assignment that leverages their unique talent set. At the same time, the Army would benefit tremendously if it could successfully match individual officer talents against requirements. Productivity would soar. Satisfaction would improve, leading to higher retention. Currently, however, there is no talent matching market mechanism, no way for Army strength managers and officers to make efficient talent transactions. As a result, the officer talent market fails to function optimally—in other words, assignment transactions still occur, but there is a significant mismatch in talent supply and demand.

Markets can also fail from *asymmetric* information challenges, where one party has more or better information than the other.[13] This is true of the officer talent market. All officers have more information than the Army regarding both their opportunity cost and their expectations of military service. Because the Army knows relatively little about each officer's particular desires and capabilities, and because it treats individuals as interchangeable parts, it can do little more than offer generic retention incentives. When it

does so, this information imbalance ensures that officers who intend to stay in the Army are more likely to opt for retention bonuses than those who intend to leave.

Another form of market failures is *externalities*—impacts upon people outside of the transaction. These can be positive or negative. For example, when a talented officer decides to stay in the Army, that action produces a positive externality that may influence others to continue their service. Conversely, when the Army mismatches an officer with a requirement, that mismatch creates a negative externality that may cause several peers or subordinates to leave the service.

FROM THEORY TO PRACTICE: BUILDING SUCCESSFUL RETENTION POLICIES

Improving officer talent retention requires far more than dramatic pay raises or other financial incentives. First, it calls for a mutually reinforcing mix of sound *accession*, *retention*, *development*, and *employment* policies. By employing all individuals in the right place and time, and by providing them with the type and amount of developmental opportunities best suited to their needs, the Army can engender a virtuous cycle that ensures the highest possible retention of the officer talent it requires. Second, these policies must acknowledge the distinct career phases which comprise an officer's career. This is critical because each phase is associated with different opportunity costs and service expectations. As a result, it takes differentiated policies to positively affect officer continuation rates across a career. There are four career phases to consider (refer back to Figure 6).

Phase I: Receipt of Commission to End Active Duty Service Obligation (ADSO).

Contingent upon their commissioning source, all newly commissioned officers incur an ADSO of 3 to 5 years. More than half of each year group's 20-year attrition rate occurs within 6 months of completing an ADSO. Since the mid-1990s, for example, only 55 percent of West Point graduates, who incur a 5-year service obligation, remain on active duty to 5 1/2 years of service.[14] Therefore, retention strategies in this phase must focus on creating positive company grade experiences, as well as positive expectations for future field grade service.

Phase II: End of ADSO to 10 Years of Service.

As they approach 10 years of service, the probability that officers will remain on active duty until retirement eligibility climbs to more than 80 percent. In this phase, an officer's career calculations often include higher education goals and whether those goals can be met in the Army. Service to this point often mitigates the effect of having earlier served under a lackluster leader, increasing the odds that officers will encounter talented professionals who can instill in them a desire for continued service. To get them here, however, the Army must create positive expectations regarding continued employment within their talent set, selection to field grade rank, and rewarding service to the 20-year point (see Figure 9).

Phase III: 10 Years to 20 Years of Service.

At this point, most officers are committed to a 20-year or longer career. They understand their profession, they have a strong sense of what they can accomplish as an officer, they have a growing need for family medical and other benefits as indicated in Figure 9, and they are more focused upon possible retirement benefits. The Army's defined benefit pension plan is nothing to dismiss lightly—a 20-year retirement is worth approximately $1.4 million.[15]

The Value of (and Need for) Family Medical and Other Benefits Increases Over Time

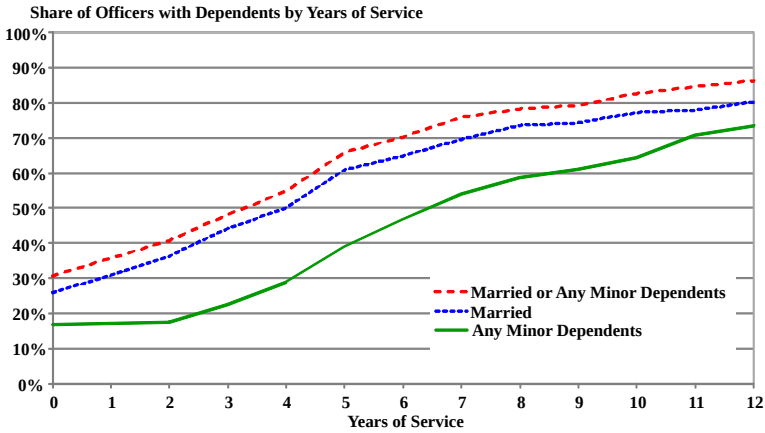


Figure 9. Growth in the Value of Family Benefits by Years of Service

Phase IV: 20 Years of Service to Mandatory Retirement.

This is when officers typically enter the Army's strategic talent segment. At this point, they have heavily leveraged most material and fiscal benefits of active duty. They are already vested in their retirement plan and incur little additional financial advantage for each day they serve beyond the 20-year mark. As a group, their service expectations shift markedly toward a desire to influence significant outcomes and to enjoy their work. Since lateral entry into the Army at this point is, of course, impossible, the Army must diligently guard against talent leakage. Opportunity costs for these officers tend to rise due to their experiences and accomplishments, which are valued in the marketplace.

EVALUATING EXISTING RETENTION PROGRAMS

Evaluating officer retention programs within the context of the theories outlined to this point is illuminating. It demonstrates the perils of ignoring market principles as well as the benefits of heeding them. Two recent retention programs that lend themselves to comparison are the Critical Skills Retention Bonus (CSRB) and the Officer Career Satisfaction Program (OCSP).

In fiscal year 2007-2008, the Army faced a substantial shortage of seasoned captains. As a remedy, it offered the CSRB to all competitive category (and Medical Service) active duty officers commissioned between 1999 and 2005. The key elements of this program ran counter to the sound market principles that should

underpin any retention policy. As a result, CSRB may actually have done more harm than good. The CSRB offered $25,000, $30,000, and $35,000 lump sum payments to officers in exchange for 3 years of service.[16] With a cost to taxpayers of $500 million, there is no evidence that it improved retention.[17] In fact, the incentive was capitalized upon by a population that did not require it—77 percent of those captains who requested the incentive in the autumn of 2007 had previously indicated an intention to stay on active duty beyond their initial service obligation.[18]

The program's flaws were many. First, CSRB made no effort to retain talented officers—its focus was on quantity. Second, programs such as CSRB can cause some to forgo other retention incentives in the belief that they will eventually be offered a second bite of the retention incentive apple. This effect is counter to that desired, epitomizing time-inconsistent behavior. Third, the bonus reflected no consideration of career phase effects upon officer continuation rates—by offering the incentive so broadly (from ADSO completion all the way to 8 years of service), the Army exacerbated its retention challenge for officers between 5 and 10 years of service.[19]

In terms of a lifetime earnings comparison, even the high-end CSRB benefit of $35,000 was not enough to forestall service departure by officers already planning to leave due to high opportunity costs. At best, the bonus would retain officers with much lower opportunity costs, thus producing talent mismatches for the increasingly complex jobs awaiting them. At worst, it would pay enormous economic rent to officers who were planning to stay in the Army anyway.[20] It is a textbook example of a lagging or reactive policy,

triggered because a disproportionate share of high-performing junior officers had already left the Army.[21]

Instead of throwing money at its challenges and hoping for some benefit, the Army should instead build its officer retention programs upon the same principles governing the labor market in which it competes. These programs must be forward-looking, expending resources where they will create the highest talent return on investment. They should recognize the linkage between accessions, retention, employment, and development policies. Perhaps most importantly, the Army's officer retention programs should specifically target officers possessing talent that is actually in demand across its formations and institutions. There is no need for the Army to accept talent mismatches.

The Officer Career Satisfaction Program (OCSP) is a retention initiative designed with these principles in mind. For year groups 2006 and beyond, OCSP is offered to ROTC and USMA cadets prior to commissioning. Cadets can obtain their branch of choice, post of choice, or a guaranteed option to attend graduate school in exchange for extending their commissioning ADSO by an additional 3 years. Once commissioned, participating ROTC scholarship officers will serve 7 years of their 8-year Military Service Obligation (MSO) on active duty, while participating West Point graduates will serve all 8. The graduate school option allows these officers to attend the school of their choice with study in the discipline of their choice. Because it is an option, officers may attend graduate school, leave the Army upon completion of their 3-year ADSO extension, or forgo exercising the option and remain in service.

Unlike the CSRB, the OCSP is not a reactive policy designed to entice *everyone* to stay. Instead, it is squarely focused upon a large, poorly retaining population with talents the Army deems critical.[22] Recall that these officers are more likely to possess the conceptual and problem-solving talents demanded by jobs such as commander, executive officer, or operations officer, and that their talent advantage grows as they move from company grade to field grade assignments of increasing scope and complexity (refer back to Figure 5). By offering this program to ROTC and West Point cadets, the Army aims a significant portion of the retention incentive at officers who would otherwise leave active duty prior to year 8. As an additional benefit, the Army avoids any issues of fairness because the offer is made at the source of commission, for which any aspiring applicants can compete.

OCSP generates significant benefits precisely because it heeds market principles. For example, it avoids a time inconsistency problem by committing the Army and the individual to a service contract which is executed 4 to 8 years into the future. OCSP also addresses market failures by providing markets that had been missing. Previously, many cadets were unable to secure their branch or post of choice because branching and posting algorithms are based primarily on academic standing. Over the past 4 years, however, more than 4,000 cadets participated in OCSP to secure their branch or post of choice, guaranteeing the Army more than 12,000 obligated man-years of service at no cost to the Army. Quite clearly, giving new officers some voice in their assignment process immediately increases their satisfaction and helps meet their expectations of service.[23]

Another missing market was for graduate school. In light of the 175 percent wage premium the typical graduate degree holder garners over a college graduate, it is not surprising that scholarship officers view graduate education as an important career objective. Indeed, a majority of officers who remain in the Army beyond 10 years of service but do not participate in the Army's existing Advanced Civil Schooling (ACS) program obtain graduate degrees on their own.[24] In addition, many officers who earned a graduate degree via ACS report that, absent this opportunity, they would have departed the Army.[25] This demonstrates how powerfully graduate-level educational opportunities can affect service expectations.

Until the OCSP was instituted, the odds of attending graduate school under ACS auspices were less than 1 in 10 for the thousands of new officers commissioned annually. The program made only 415 graduate school slots available per year. More than half of these required officers to immediately follow school with an instructor tour at West Point, pulling them out of the operational force for a total of 5 or more years. Many others required a post-graduation functional area utilization tour. OCSP's graduate school incentive has no post-graduation teaching or utilization tour requirement, however, allowing many more officers to attend graduate school for up to 2 years and then immediately return to an operational assignment.[26] For the Army, its return on investment is 3 days of operating force service per officer for each day spent in graduate school.

OCSP's graduate school incentive also takes into account the way officer career phases affect retention behavior and is designed accordingly. Once selected, the incentive moves officers through their first career phase

by extending their Active Duty Service Obligation to 7 or 8 years of service.[27] Their attendance at graduate school takes them through their second career phase to approximately 10 years of commissioned service. The average additional service obligation incurred in graduate school brings them squarely into their third career phase, to 15-16 years of service. Based upon historical retention patterns, 96 percent of officers who reach this level of longevity continue to 20 years of service. There would likely be some retention lift in the fourth career phase as well (20 years to mandatory retirement), because graduate-level education not only enhances career satisfaction but also extends the talent advantage critical to strategic-level leadership.

The power of the OCSP incentives to secure thousands of years of obligated service while simultaneously creating a more agile, satisfied, and educated Officer Corps is inarguable. For example, as shown in Figure 10, extending the branch, post, and graduate education option to officers in year groups 2006-09 stands to increase 8-year continuation rates from 47 percent to above 69 percent—levels akin to those in the industrial era. By offering the OSCP prior to commissioning, the Army also eliminates an information asymmetry, as cadets are unable to predict at commissioning whether or not they will stay on duty past their ADSO.[28]

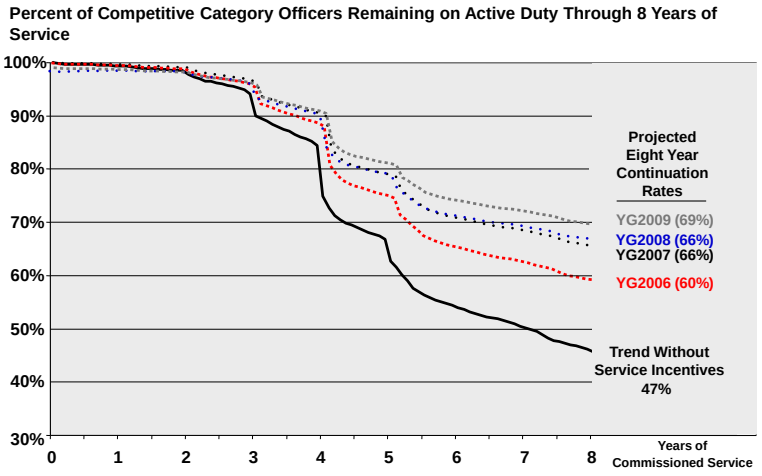


Figure 10. OCSP Raises Officer Retention Rates by 50 Percent

The post-September 11, 2001 (9-11) GI Bill only adds to the OCSP's appeal. By electing OCSP's graduate school for service option and extending their service obligation by 3 additional years, cadets are guaranteed fully funded graduate school whether they use the option or walk away from it. If they depart the Army after completing their extended ADSO, they can use their GI Bill benefits to further their own education. If they stay in the Army, however, they not only can continue on to graduate school via OCSP, but they gain transferability of their GI Bill benefits to a dependent.[29]

The differences between programs such as the Career Service Retention Bonus and the OCSP are fairly stark, but perhaps the most important difference is that OCSP represents an investment in human capital. As we know, education has value. It increases worker productivity. It expands knowledge and thus extends

the talent advantage of an individual. Because officers who participate in the OCSP are much more likely to reach 20 or more years of service, the Army's return on its educational investment is therefore quite significant. Even when this incentive is made available to officers who would have remained in the Army without it, it does not amount to economic rent, as additional education still yields the benefit of increased productivity.

Of course, such is not the case with cash retention incentives. These entail no investment in human capital and therefore yield no productivity gains. Buying service with cash payments simply garners a windfall for officers who would have remained in service anyway and saddles taxpayers with an unnecessary expense.

CONCLUSION

Over the last 3 decades, dramatic labor market changes and well-intentioned but unsound policies have created significant officer talent flight, engendering significant risk for the Army. Poor retention impedes the Army's ability to screen, vet, and cull officers, undermining its ability to properly access, develop, and employ talent. Therefore, the Army cannot undertake thoughtful policy decisions in these areas if its officer talent pipeline continues to leak at current rates. High talent retention is a necessary precondition to creating the most capable Officer Corps possible.

The Army cannot insulate itself from labor market forces as it tries to retain talent. Therefore, the retention component of its officer strategy must rest upon sound market principles. It must also be continuously

resourced, executed, measured, and adjusted across several years and budget cycles. Absent this, systemic policy and decision-making failures will continue to confound Army efforts to create a talent-focused Officer Corps strategy for success.

IV

ACCESSING OFFICER TALENT

Price is what you pay. Value is what you get.

Warren Buffett[1]

INTRODUCTION

Since its completion in 1883, the Brooklyn Bridge has been a symbol of American ingenuity and industrial dominance. Due to the careful planning and forward-looking nature of its principal architect, John Roebling, the span was thoughtfully designed and ideally located, creating a powerful and enduring economic bond between Brooklyn and Manhattan that resulted in their incorporation as one city in 1898. The bridge has met New York City's ever changing needs for over 125 years, and against a construction cost of $15 million it has generated billions in commerce, a tremendous return upon investment.[2]

Just as cities invest in infrastructure, the United States invests a great deal in national security, and the acquisition of talented Army officers is at the core of its portfolio. In many ways, this investment is analogous to the fixed investment in a bridge—once built, it cannot be moved. So too, once the Army accesses a cohort of officers, it must live with them throughout a 30-year career span. Each officer represents a component of that span; the struts, ties, piers, and cables needed to carry the Army from the present to the future. Collectively,

they must possess the right talents, equal to both current and future demands.

The reason for this is that unlike most enterprises, the Army cannot buy talent from elsewhere to fill shortfalls at its mid and upper-level ranks. The Officer Corps embodies a unique profession whose culture and core warfighting abilities take years to develop. This means that each new officer cohort represents far more than the Army's latest crop of junior leaders. They are the feedstock for its future field grade and general officers. As a group, they must therefore possess the depth and breadth of talent needed not just to lead platoon-sized formations, but to meet future operational and strategic leadership demands as well (see Figure 1).

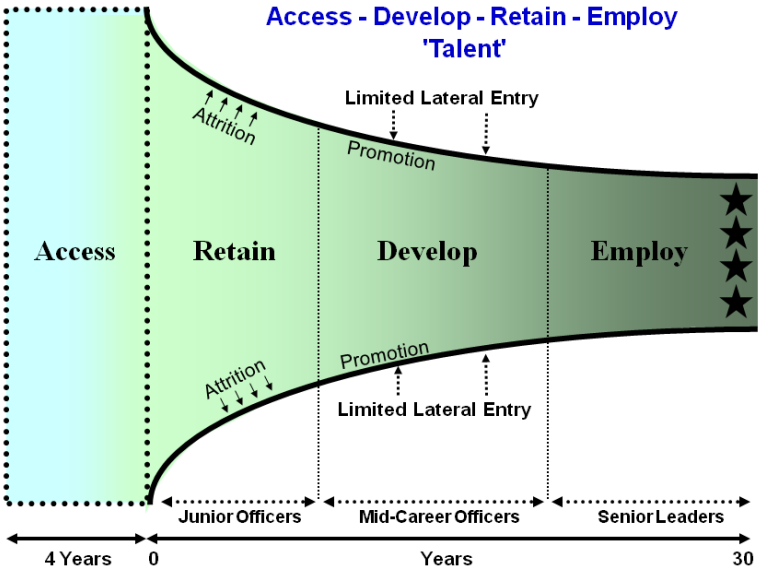


Figure 1. Army Officer Human Capital Model

Accessing the right officer talent has a positive effect that cascades through the rest of the officer career model. It directly improves the efficiency and productivity of the Officer Corps by shortening *developmental* time and reducing rework and retraining costs. Hand-in-hand with these efficiencies, improvements in talent acquisition provides greater flexibility to *employ* officers against uncertain future requirements. Accessing the right talent today also burnishes the Army's reputation, creating a virtuous cycle that makes it easier to attract talented young people tomorrow. Accessing the right people also increases the likelihood of *retaining* them, particularly when reinforced by targeted retention programs.

As discussed in the third monograph of this series, much of the talent in demand in the Army is generally in demand elsewhere. These talents are therefore associated with higher opportunity costs, which reduce retention propensity. Improving talent matching through accessions, however, can counter this effect by indirectly increasing career satisfaction, as officers benefit from working within their talent set alongside similarly talented officers. These effects, coupled with targeted retention incentives such as the Officer Career Satisfaction Program (OCSP), may actually result in higher retention rates.[3]

Anyone would agree that accessing the right talent can yield tremendous benefits to the Officer Corps, but what does "right" mean? In our view, it is more than accessing the correct number of officers to fill existing billets. It means acquiring the proper breadth and depth of talent, the diverse skills, knowledge, and behaviors actually in demand across the Army's organizations, both now and in the future.

It also means recalibrating notions of fairness. While the Army must afford *equal* opportunities to all, the *fairest* accessions behavior it can engage in is commissioning new officers with the talent needed to fight and win wars at the lowest cost in American lives and taxpayer dollars. Focusing a share of accessions efforts toward desired ethnographic or demographic groupings can be tremendously beneficial, provided these efforts are not at the expense of talent considerations. If talent requirements are ignored, however, the Army stands to *reduce* rather than increase diversity levels, simultaneously lowering the mean performance of the Officer Corps.

For example, bringing in and retaining a fixed percentage of tall officers (or brown-eyed, left-handed, etc.) simply because they are tall and without regard for talent would require the Army to continually write promotion board guidance to keep these officers competitive with their peers. It could actually reduce retention rates among tall officers, as those commissioned on the basis of height rather than talent would be less capable role models to their young counterparts. This could create a negative experience for those young officers, engendering talent flight. Additionally, it would undermine Army efforts to continuously screen, vet, and cull officer talent.

The good news is that across virtually all ethnographic and demographic segments in the United States, the current generation of accessions-age young people is far larger, far more diverse, better educated, smokes less, drinks less, and generally enjoys greater well-being than the one preceding it.[4] Now, more than ever before, the Army can pursue diversity in its Officer

Corps without putting talent at risk, provided its accessions effort rests upon sound theoretical principles.

DISPARATE YET COMPLEMENTARY COMMISSIONING SOURCES

The Army has a range of commissioning sources with which to acquire the talent it needs by setting mission requirements for each and resourcing them accordingly. Although these sources are routinely compared with one another, such comparisons are misleading and counterproductive. The commissioning sources were designed to be complementary, with each specifically resourced to attract different talent populations based upon the screening, vetting, and culling measures it employs (see Figure 2). The rigor of these measures is determined by both the length of time and the number of dimensions an individual is evaluated against.

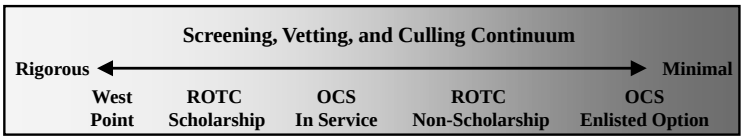


Figure 2. Screening, Vetting, and Culling Continuum

At one end of this continuum, the Army resources the U.S. Military Academy at West Point, New York, to employ rigorous screening, vetting, and culling measures. It competes with the best colleges and universities throughout the nation for college bound talent. West Point screens more than 11,000 applicants each year to accept some 1,300 officer candidates. It provides an immersive, 47-month developmental and

higher education experience to vet these officer candidates against both time-proven standards and one another. Under the continuous mentorship of seasoned cadre, some 28 percent of each class is culled prior to commissioning.[5]

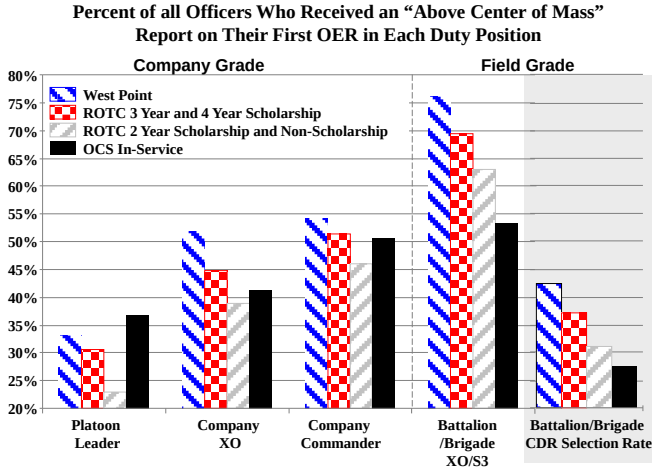
At the other end of the continuum is Officer Candidate School (OCS) with the Enlistment Option (EO). OCS-EO is resourced to attract college educated individuals who choose to pursue a commission after completing their undergraduate education. Minimal screening, vetting, and culling measures require candidates to only complete enlisted basic training followed by the 90-day OCS course prior to their commissioning. This quick-turn commissioning source is charged with rounding out any shortfalls in officer accessions.

In between these two sources is OCS In-Service (IS). OCS-IS is resourced to target successful enlisted personnel with the potential and proclivity for commissioned service. Years of performance while serving as a Soldier and the 90-day OCS course serve as the primary screening, vetting, and culling mechanisms. Roughly 10 percent of each OCS-IS cohort is culled prior to commissioning.

Lying between West Point and OCS-IS on the screen-vet-cull continuum is the Reserve Officer Training Corps (ROTC) scholarship program. Since World War II, ROTC has been the largest source of officer accessions, producing up to 70 percent of all commissioned officers in some years. With 273 host battalions supporting cadets at more than 1,200 colleges and universities throughout the country, ROTC offers leadership development and military instruction to both scholarship and non-scholarship students. The most

rigorous screening occurs via scholarship and college applications, while vetting and culling takes place during military instruction and training exercises. Academic performance and degree completion are additional vetting and culling measures. ROTC spans the full spectrum of school quality and disciplines, from Ivy League to senior military colleges to open enrollment. It is resourced to access officers with diverse degrees and demographic characteristics. Note that we place ROTC non-scholarship cadets between OCS-IS and OCS-EO on the screen-vet-cull continuum. While ROTC non-scholarship cadets have no scholarship screen, they are otherwise subject to the same vetting and culling mechanisms as their scholarship counterparts.

Officer evaluation reports (OERs) and selection rates to battalion and brigade command support our view that the Army resources each source of commission to attract different types of talent. Figure 3 shows how performance in key company grade positions, through the rank of captain, sorts nearly identically with our screening, vetting, and culling continuum. However, in the field grade ranks, there is a slight shift in that ROTC non-scholarship officers perform better than OCS-IS in battalion and brigade level S3/XO positions and are more likely to be selected for battalion and brigade command. In general, commissioning sources with higher screening, vetting, and culling thresholds increase the odds of producing talent matches for duties that the Army deems critical, particularly as job complexity increases.



NOTE: OCS-EO officers are not represented due to the unavailability of senior rater profile data on these officers.

Figure 3. Performance and Selection to Command

To avoid any misinterpretation of Figure 3, we make two clarifying points. First, these rates represent *populations*. There are equally talented *individual* officers from each source of commission, but on *average* they sort along the screen-vet-cull continuum in Figure 2.[6] Second, this is not an argument about the merits of each commissioning source—they each have merit. We are simply pointing out the correlation between performance and Army resourcing—the higher the investment (West Point and ROTC 3 and 4-year scholarship officers), the greater the mean performance.

Figure 4 bears this out. Note that West Point has the highest average cost per commission, ROTC non-scholarship the lowest, and the costs of the other commissioning sources sort identically to both the screen-vet-cull continuum in Figure 2 and the performance data in Figure 3.

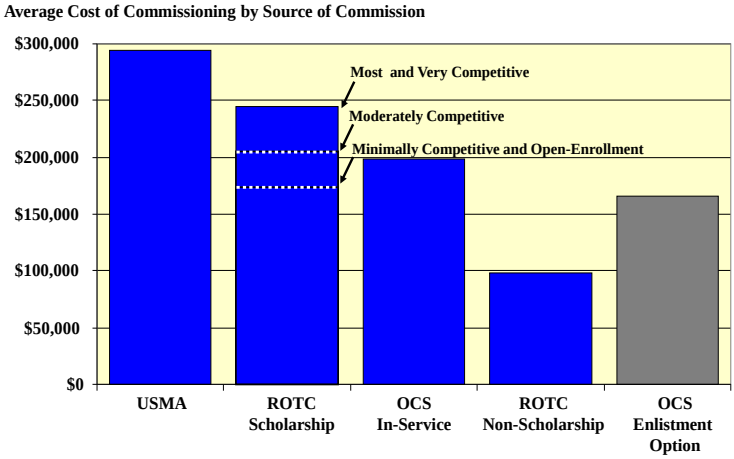


Figure 4. Average Cost of Commission

The exception is OCS-EO. This is because OCS-EO was designed as a stop-gap commissioning source to round out shortfalls, and the resources required to fund it on short notice (covering student loans up to $80,000, in particular) make it relatively expensive despite its lower degree of screening, vetting, and culling.

CONCERNING TRENDS IN OFFICER ACCESSIONS

In light of the role that Army officers play in U.S. national security strategy, the role that accessions play in the officer career model, and the amount that taxpayers invest in each officer, recent trends in officer accessions are cause for concern. Figure 5 shows the substantial shift in the mix of officer accessions by source of commission over the past 2 decades.

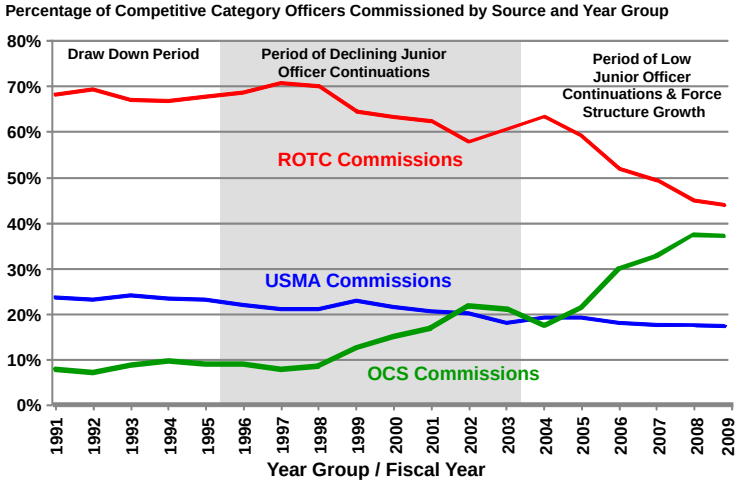


Figure 5. Officer Accessions Mix by Source of Commission

The shift in ROTC and OCS accessions is so striking that a casual observer might conclude that it is the result of some deliberate plan on the part of the Army. Unfortunately, it is not. Rather, it is a result of the Army not having an Officer Corps strategy that integrates the four components of the officer career model. As we have described in our previous monographs, this shift in accessions is due primarily to low retention among officers commissioned in the mid-1980s through today. Commensurate with the rise of the information age, there has been an increased demand in the labor market for problem-solving, knowledge creation, and conceptualization talents. A result has been an exodus of Army officer talent, principally seasoned captains.

In response, the Army increased its annual accession missions. With West Point capped by the United States

Code at 4,400 cadets and with ROTC experiencing significant resource cuts during the post-Cold War drawdown, the Army turned to OCS to fill the gaps. As Figure 5 indicates, this shift began in 1998, long before the current conflict. Modularity and increases in the Army's end-strength resulting from the global war on terrorism (GWOT) did exacerbate the shift, but the seeds of the problem were sown some 2 decades ago.

At the same time that the Army was experiencing an epochal change in labor market conditions and officer retention behavior, reductions during the drawdown in the 1990s literally gutted ROTC, forcing the Army to further increase OCS production to fill shortages. As shown in Figure 6, the number of officers assigned as ROTC cadre declined by more than 50 percent over the last 2 decades.

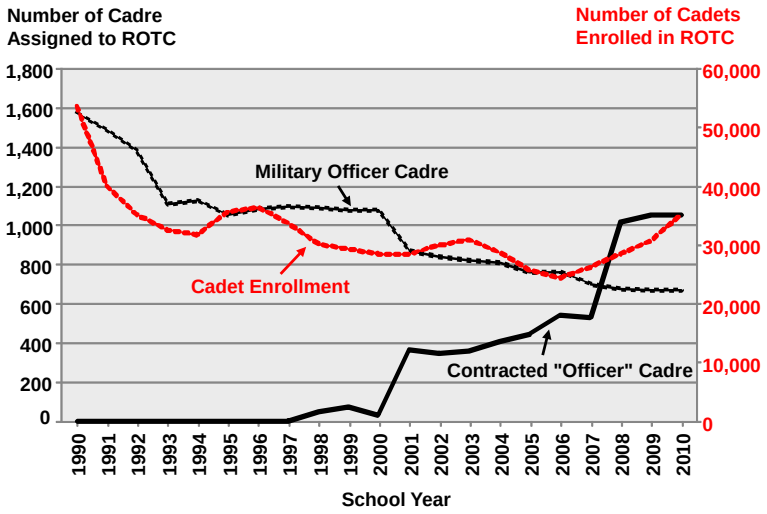


Figure 6. Significant Cuts in ROTC Officer Cadre.

To offset this dramatic loss in military leadership, the Army hired contracted cadre, a less than ideal substitute. This gutting of ROTC closely corresponded with a period of declining cadet enrollments which began in 1990 and lasted through 2006.[7]

Changes in ROTC scholarship management compounded the problem. Prior to 1998, scholarship candidates applied to a centralized board. If awarded a scholarship, applicants could apply it to any school that offered an ROTC program. In 1998, however, ROTC introduced the Campus Based Scholarship Program (CBSP), with scholarship candidates applying directly to individual ROTC detachments. This change was meant to save costs by fixing the number of scholarship positions at each school, thereby reducing year-to-year fluctuations in cadet enrollment at different colleges. It was also meant to give Professors of Military Science greater discretion over the process at their college, as they could now screen applicants locally and award scholarships accordingly. Whether or not this would attract better talent matches to ROTC was not a key consideration.[8]

One of the unintended but nonetheless real consequences of this change was that it severely restricted a scholarship candidate's decision space. Instead of receiving a scholarship that could be applied at the school of his or her choice, the scholarship was now tied to a specific school. A candidate receiving an ROTC scholarship to Penn State, for example, but who also applied to and was accepted at Notre Dame without an ROTC scholarship now faced a difficult decision. Forcing candidates to choose between an unfunded education at their school of choice versus an ROTC scholarship at their second or third choice

significantly lowered the utility and appeal of ROTC scholarships. As compared with the Air Force and Navy, both of which continued to offer centralized scholarships, the value of an Army ROTC scholarship was comparatively lower.

As cuts to ROTC diminished its ability to commission officers, and since it takes as much as 4 years to fix shortfalls in ROTC production, the Army turned to OCS, which could produce an officer in a matter of months. The rise in OCS from 9 percent of accessions prior to 1998 to nearly 40 percent of accessions in 2008 occurred first in the OCS In- Service (IS) program, which harvests officers from the enlisted ranks. When OCS-IS reached its maximum commissioning capacity, the Army expanded the OCS Enlisted Option (EO) program, which rapidly brings college educated civilians into the Officer Corps. By 2006, total OCS production was split evenly between OCS-EO and OCS-IS, and since 2006, OCS-EO has comprised more than 60 percent of OCS accessions.

Although OCS accessions provide the Army with the flexibility to expand quickly, these significant increases in OCS accessions actually ended up exacerbating the retention problem. OCS-EO officers retain through 6 years of service at the *lowest* rates (and the Army consequently receives the fewest man-years of service from them). This is because their commissioning active duty service obligation (ADSO) expires after just 3 years, and they have not been subjected to the more rigorous screening, vetting, and culling of the other commissioning programs. Meanwhile, although OCS-IS officers serve through 6 years at the highest rates, their retention falls precipitously after 10 years of commissioned service since they become retirement

eligible due to their years of prior enlisted service. Since the Army's biggest officer shortages fall in the senior captain and major ranks, OCS-EO and OCS-IS accessions do little to address those shortages and instead intensify retention problems at exactly the worst points in the officer career model.

Additionally, the Army's practice of over-accessing officers to compensate for low retention puts additional downward pressure on retention. As shown by the dots in Figure 7 (reading right to left), accessions were relatively constant in the 1990s, but have climbed steadily since 2000.[9]

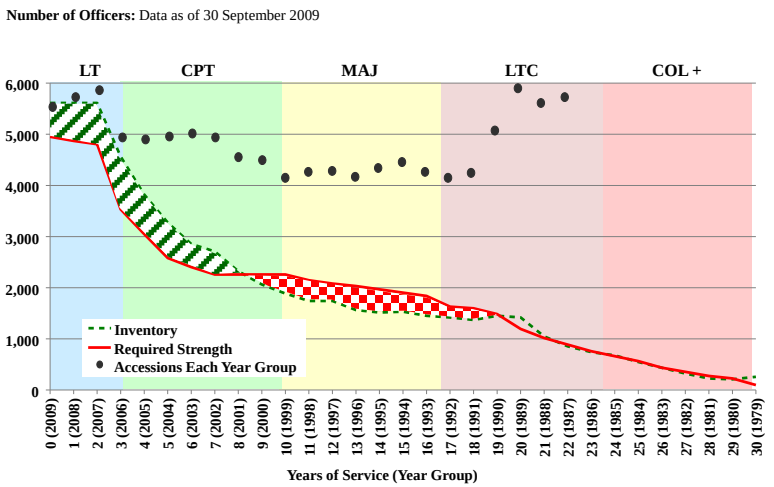


Figure 7. Authorized Strength and Inventory (with Trainees, Transients, Holdees and Students) for Army Competitive Category Officers

As a result, the Army has significantly more company grade officers than it has structure to employ them. This creates a lengthy queue for platoon leader positions and forces the Army to reduce the amount of time that an

officer spends in key and developmental positions. Not surprisingly, this leads to decreased satisfaction and impairs the Army's ability to retain talent.

There is little doubt that recent changes in accessions policy have placed the long-term viability of the Officer Corps at risk. Ironically, and as we pointed out in the initial monograph in this series, accessioning is the only component of the officer career model where the Army can achieve a net gain in overall talent. In all other functions, talent is a zero-sum game—if you employ talent in one area, it is unavailable elsewhere (for example, officers in the Generating Force are unavailable to the Operating Force). By committing the right talent and resources to its officer accessions effort, however, the Army can increase overall talent levels without harming itself elsewhere. In the long run, this is a positive sum game, one where the capabilities of the Officer Corps rise due to human capital acquired from outside. Achieving strategic-level outcomes of this kind requires an accessions strategy grounded in sound theory.

THEORETICAL CONSIDERATIONS

Competing with colleges, industry, and corporate America for talent requires an appreciation of key market principles. First, the Army must understand the market place in which it competes. Second, it must understand the ways in which individuals respond to information in order to improve communication with the prime market of potential officers.

Competing in the Market for Talent.

As we explained in our monograph on retaining officers, choice theory predicts that individuals will join the Army if the value of serving as an Army officer outweighs their best alternative option (opportunity cost). Aggregating across all potential prospects produces an S-shaped officer labor supply curve, graphically depicted in Figure 8.

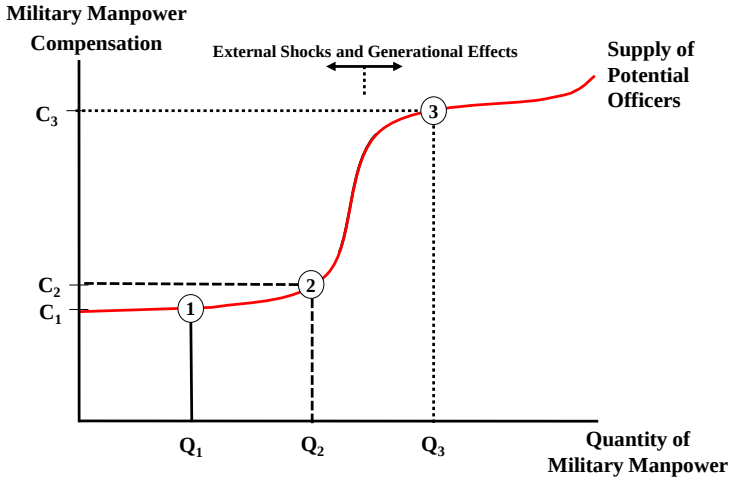


Figure 8. S-Shaped Officer Supply Curve

For the purposes of this discussion, the term "compensation" includes all wages and benefits (salary, medical care, insurance, tax benefits, job satisfaction, retirement plan, educational opportunities, etc.). The relatively challenging nature of commissioned service provides the theoretical basis for the curve. To understand why, consider that for a modest compensation rate (denoted by C1), the Army can

expect to have a quantity of officer prospects (Q1) willing to serve. These are individuals whose positive expectations of military service outweigh the alternatives available to them in the civilian sector at this compensation level. If the Army needs more officers, (say Q2), it must raise compensation from C1 to C2. This increase entices more individuals to join because the added compensation again outweighs their opportunity cost in the civilian sector. In this example, there is a relatively large increase in the quantity of officers for a modest increase in compensation.

The physical demands and risks associated with Army service means that at some point the pool of willing prospects will begin to dwindle. To increase the quantity of officers again (this time from Q2 to Q3) now requires a significantly larger increase in compensation (from C2 to C3). This is because people in this prospect segment have differing expectations and opportunity costs than those who have already opted to serve. They may find military service more onerous than those opting in at a lower compensation point or their talents may command higher compensation in the civilian marketplace.

The thick vertical part of the S-shaped curve represents the characteristics and condition of available officer labor. It shifts in and out in response to both external shocks (war, economic crisis) and the archetype of each military age generation. For example, the September 11, 2001 (9/11) attacks or declining economic conditions shift the vertical part of the curve to the right, making it easier for the Army to access officers. Conversely, high wartime casualties, public or political opposition to war, or improving economic conditions

can shift the vertical portion back to the left, making it more difficult to access officers.

Viewing the challenge in this way reveals an important aspect of the officer accessions process—that in an all-volunteer force, the prospect pool ultimately determines the scope and tempo of Army talent accessions. Therefore, understanding the shocks that shift the supply curve and how each military age generation will respond to them is central to understanding the talent market in which the Army competes for officers.

The generation comprising the vast majority of current and future new officers is the "Millennial Generation," also referred to as "Echo Boomers" or "Generation Y." Like every generation, it has its own persona. Roughly speaking, the Millennial Generation consists of 78 million Americans born between 1982 and 2001, three times the size of "Generation X" and the largest American generation since the "Baby Boomers." With its youngest members currently just 9 years of age, the Millennial Generation will dominate new officer accessions for the next decade. While entire papers have been devoted to them, there are three characteristics of "Millennials" worth noting here: (1) they are the most ethnically diverse generation to date; (2) they are extremely independent because of day care, single parents, latchkey parenting, and the technological revolution that bounds their coming of age; and (3) they feel empowered—thanks to supportive "helicopter" parents, they have both a sense of security and significant optimism about the future.[10]

Additionally, of the generational archetypes that seem to cycle through each epoch in a somewhat predictable pattern, the Millennials are a "Hero"

generation, coming of age in a period of global unraveling and crisis (persistent conflict and economic shocks) not unlike that of the "Greatest Generation" which reached adulthood during the Great Depression and World War II. In common with that generation, they are more conventional in outlook than those (Gen X) who preceded them, and they are institutionally driven team players with a profound trust in authority.[11] In sum, their size, character, beliefs, behavior, and location in history make Millennials an excellent officer prospect population for the Army, provided the Army tailors its approach to attract them accordingly.

Communicating with Prospects: Understanding Behavioral Economics.

Classical economic theory assumes that there is perfect information on both sides of a market transaction and that people behave rationally when confronted with choices based on information. By rational, we mean making decisions that improve their welfare over time. In reality, however, these assumptions rarely hold, resulting in market failures. Seldom do people have perfect information about serving as an Army officer, and even less often does the Army have perfect information about applicants. As humans, we are prone to systemic decision-making errors even when our information is relatively accurate. Army marketing efforts must account for these deviations since they are likely to play an important role in the market for new officer talent.

Notwithstanding the wealth of information available to individuals today, they will generally turn to the

most *immediate* source to reach decisions, whether or not it is the most *accurate* source. Studies have shown, for example, that the first person who orders at a restaurant often shapes the choices of others at the table. Once their selection is announced, others rapidly follow suit and menus around the table are closed, even though they contain a wealth of information that would be useful to making a choice. Relying upon an acquaintance rather than the menu is faster and more convenient, even if less accurate.

For the current market of potential officer prospects (roughly 17-24 years old), being born and raised in the Information Age has shaped their view of the military. They have much less direct exposure to the military than previous generations of young people, most of whom had vicarious contact with millions of World War II or Cold War-era service veterans. In the absence of such a direct connection, they must rely on popular culture, movies, television, or the internet for information regarding Army officer service. If the Army fails to provide accurate and easily assimilated information about officership, prospect impressions may be unduly shaped by the wealth of incomplete, dated, or skewed information available from thousands of media sources.

For those prospects with a distinct proclivity towards military service, perceptions of each service component frame their decision-making as well (see Figure 9). Survey data from polling regarding the four service components shows that public perceptions segment along two continuums: "brain to brawn" and "elite to ordinary."[12] Regardless of whether these perceptions are accurate or not, young Americans view the Army as more ordinary than elite and more physical than

intellectual. Such perceptions reinforce the theory of an S-shaped labor supply curve discussed earlier, and they do not posture the Army well to compete with the other military services for talent.

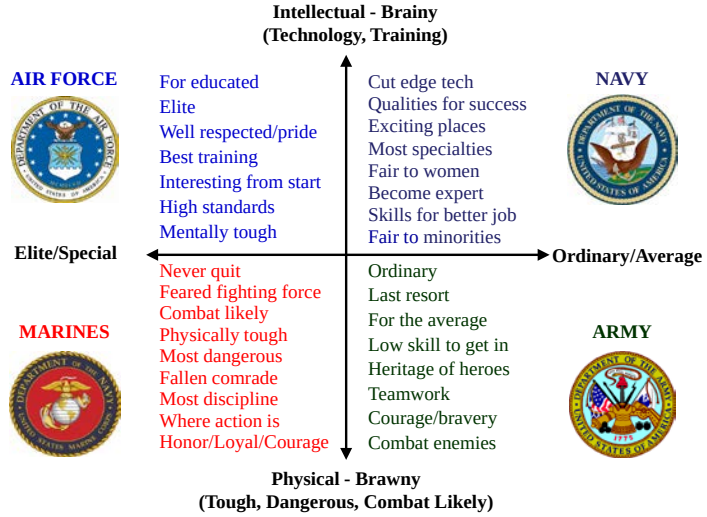


Figure 9. Public Perceptions by Branch of Service

Getting talented people interested in the Army and overcoming its negative image relative to the other services requires innovative marketing. Generations coming of age in a time of economic hardship, fascism, global communism, conscription, and significant exposure to veterans were more readily interested in service as an Army officer. Such conditions do not exist today, however, and framing a marketing campaign around such conditions would not influence the current Millennial Generation of prospective officers. These young men and women are consumers of data, live on the internet, play virtual games, develop virtual

networks, and have lived most of their lives in relative economic prosperity. Successfully framing the Army for them requires a different approach (see Figure 10.)

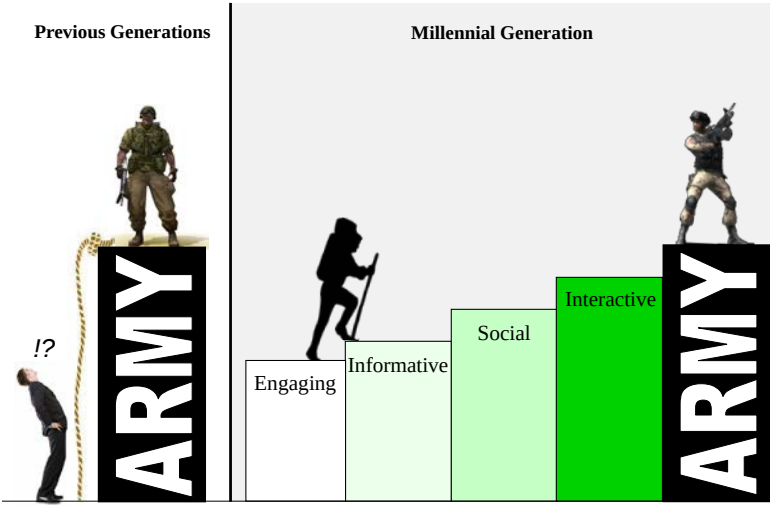


Figure 10. Approaching the Army as a Profession

Figure 10 contrasts the ways in which different generations may approach the Army as a profession. Marketing strategies that appeal to Millennials are likely to follow the gradual pathway depicted to the right. Framing the Army so that it is seen as engaging, informative, socially based, and interactive aligns well with the sensibilities of the current generation. Beyond information failures, the limits of human rationality are likely to further narrow markets for new officer talent. While we fancy ourselves to be modern thinkers who form beliefs and reach decisions rationally, behavioral economists argue that we remain cognitively connected to the earliest humans, whose primary concern was

survival.[13] This necessitated rapid decision-making based upon *heuristics* (cognitive shortcuts that reduce complexity and speed decision-making) connected with finding the next meal or avoiding becoming a meal.

Like our ancestors, modern humans genetically encode information connected to existential and highly vivid events so it is readily available for recall and decision-making. A primitive tribe observing a tiger for the first time may not have known what to make of it. If a member was then eaten by the tiger, it likely engendered a very vivid memory. As a result, the next time a tribe member happened across a large, four-legged striped animal, an immediate flight response probably ensued, even if the animal was a harmless zebra—the more vivid the initial existential experience, the more dramatic the response. The gist of seeing such an animal was that tigers are life threatening, and that response was immediately projected to other large striped creatures, even if that is somewhat irrational. This is one reason that advertisers employ vivid information, to facilitate the encoding and recall of product attributes.[14]

While these heuristics may benefit some products, they create challenges for Army marketing efforts. Popular culture provides young adults with a large volume of increasingly vivid information. This information often takes the form of movies such as *Tiger Land* or *Platoon* that dramatize certain unflattering perspectives on service during the Vietnam draft era. Vivid information about the Army also abounds via YouTube, blogs, websites, and commercial video games. If that were not enough, technological progress in the form of 3D electronic commercial games and High Definition TV visually enhance the vivid depictions of

combat. Most of this content is void of details regarding how the Army of today provides markedly improved quality of life, pay, benefits, and professional interactions as compared to what is depicted in most war movies. Instead, the gist of Army service vividly portrayed by these media is that it entails immediate and constant personal danger, exposure to the elements, and a dehumanizing hierarchy. This information can systemically shape youth impressions, overshadowing Army marketing in reach and volume.

Further complicating the situation is another type of decision-making irrationality called *confirmation bias*. Confirmation bias causes people to systemically seek or accept evidence confirming their existing beliefs. Information that does not conform to existing beliefs is subject to greater examination than evidence that fits with existing beliefs.[15] Incomplete vivid information on the military that is rampant in popular culture can shape human estimates regarding the likelihood of events. People often treat fictional information that they have seen in a movie as if it could have happened.[16] Because Army efforts to recruit potential officers do not go into full swing until young adults reach age 17, there is significant time for popular culture to shape beliefs and perceptions of military service.

Summarizing the main theoretical considerations with regard to competing for officer talent, the Army must understand the marketplace, which is shaped by generational effects, market failures, and innumerable other shocks that affect an individual's proclivity to service. This understanding also requires an appreciation for individual decision-making behavior—the role of information framing, the impact of vivid images of military service, and the difficulty of

overcoming the confirmation bias engendered by misrepresentations of the Army by pop culture. A first step in addressing these theoretical considerations is to target marketing efforts at populations with increased likelihoods of accessing the right talent.

FISHING FOR TALENT IN THE RIGHT PONDS

While there are a few big fish in every pond, it is a fact of life that some ponds have greater numbers of big fish. Whether we are talking about actual fish or talented people, it is no accident that some ponds routinely produce bigger fish. Take eastern Ohio or Texas, for example. Both are famous for producing top-notch collegiate football talent. Well-established junior programs feed well-resourced high school programs, which attract college scouts by the droves.

Similar to eastern Ohio and Texas football, most top-tier universities have justifiably powerful reputations for producing top-notch graduates. Harvard Business School (HBS) epitomizes this. Routinely rated as one of the top business schools, its tuition runs as high as $46,000 a year. Additional living expenses put the final cost for the 2-year program at over $150,000.[17]

This price tag does little to deter aspiring candidates from even modest backgrounds because corporate America compensates HBS graduates commensurate with this high cost. Why? It is simply because Harvard has the record and reputation for producing top notch graduates. American companies are in essence paying Harvard to screen, vet, and cull talent for them. Harvard provides a pond from which firms can, with a great degree of certainty, get the talent they need.

Similarly, the Army must thoughtfully choose the ponds it fishes in and align resources accordingly. Take, for example the ponds of talent illustrated in Figure 11.

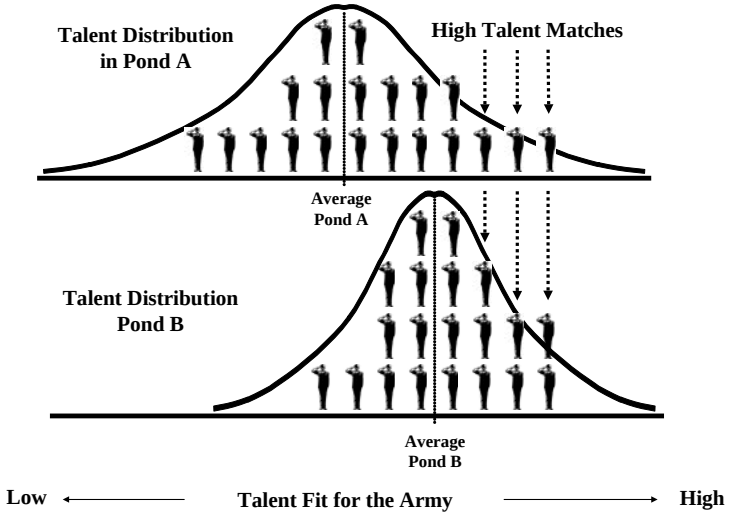


Figure 11. Fishing in the Right Pond

There are 20 potential officers in each of the "ponds," but the talent distribution in Pond A has a lower average and wider distribution of talent matches than Pond B. At all levels of talent match, there are more high potential talent matches in Pond B than Pond A. Note too that there are three times as many potential officers with an above average match in Pond B than there are for the same talent levels in Pond A. The chances of accessing the right talent match for the Army is clearly higher in Pond B than Pond A.

Once the Army decides the size and type of fish it wants to catch, and which ponds it wants to frequent, it must select the right "lure." That is the role of

marketing. The five primary sources of commission—West Point, ROTC Scholarship, ROTC Non-scholarship, OCS-IS, and OCS-EO—along with the leadership experiences of being an Army officer, provide the Army with a wide range of marketing lures, allowing it to fish in many different ponds.

For example, West Point and ROTC scholarships give the Army the ability to compete for the best talent in the country. Each year, these programs attract more than 25,000 college-bound applicants with at least some service proclivity. They provide a method for receiving a top-notch education, a guaranteed post-college job, and a tremendous amount of leadership experience at a relatively young age. For the Army, West Point provides accessions flexibility, as the institution completely controls the curriculum and program of instruction for its graduates. With the ROTC Scholarship program, the Army has some ability (although diminished relative to West Point) to affect the instruction of its graduates, contingent upon the schools it positions itself in, and the disciplines found at each.

In contrast, ROTC Non-scholarship and OCS-IS are designed to attract those whose overriding desire is to serve as an officer. These programs are likely to appeal to those who weight their military career goals more heavily than their educational aspirations. For the Army, they provide a reduced level of flexibility to shape these commissions, as the Army cannot direct programs or levels of study. With OCS-EO, the Army can select candidates based on the completed discipline of study, but can do little to influence the pool of applicants. Furthermore, the OCS-EO missions occur monthly. Therefore, the Army can only select from among applicants who are available in any given

month. If the mission is for 100 OCS-EO officers in a month, the Army must find 100 officers even in the middle of March, when few college graduates will have become available from a recent graduation. In other words, more talent is apt to be available in the summer months or shortly after the first of each year as a result of the timing of most college graduations.

The varying degree to which each applicant desires education and each applicant desires to serve as an Army officer requires a targeted marketing effort. A broad-based marketing strategy that touts the Army's many great educational opportunities may discourage prospects who are not as interested in education as they are in serving as officers. Likewise, emphasizing the military aspects of commissioned service may dissuade applicants with a focus on education from applying. Therefore, the Army must give considerable care to understanding each pond that it fishes in and using the correct marketing lure. In the next section, we highlight several marketing innovations that take account of the theoretical construct we provide above. Some are well-developed programs and others are in their infancy.

MARKETING INNOVATIONS

Spanning Segmented Markets.

In 2008, ROTC returned to a centralized scholarship selection. This policy change appreciates the framing preferences of the current generation, since they are the ones making the final decision about serving as an officer. It also gives ROTC greater flexibility in ensuring that high-potential talent does not fall completely out of ROTC simply because one school declined acceptance to

the individual. Furthermore, it provides information to the Army on where applicants desire to attend school. Armed with such information, the Army can begin to realign resources against the demands of its applicants instead of forcing applicants to adjust to the inertia of the Army bureaucracy.

Building on the idea of a centralized scholarship application, many colleges have entered into centralized applications for admission. Common applications make it easier for the applicant to apply to multiple schools with very little additional effort. The cost to the applicant for applying to an additional school is little more than the checking of a box. West Point has begun to explore the possibility of participating in a centralized application program such as the Common Application. Benefits include a great deal of information regarding the other educational programs West Point applicants are considering. Through participation in a common application program, West Point could not only leaven its own pool of applicants, but through some innovative cross marketing efforts that reframe the Army as a viable career, it could leaven the pool of applicants for all sources of commission, even those that are not necessarily tied to a specific school.

A recent pilot program to cross market applicants from West Point to ROTC shows significant promise. Each year, West Point receives more than 10,000 applicants for some 1,300 open seats. Yet of the more than 8,000 surplus applicants, historically fewer than 100 would end up participating in ROTC. Beginning in 2008, West Point and ROTC began a cross marketing program that resulted in more than 400 of these surplus West Point applicants accepting ROTC scholarships. The program was based on several of the theoretical

principles outlined above. Before notifying a West Point applicant that he or she did not receive admission, an ROTC selection board reviewed the files and selected roughly 1,000 of the applicants to receive an offer of an ROTC scholarship. Rather than receiving a letter of notification that an individual was not accepted to West Point, he received a phone call from an officer letting him know that while he did not get accepted at West Point and although he had not applied for an ROTC scholarship, the Army really valued his application and was prepared to offer him a full ROTC scholarship at any ROTC program in the country. In essence, the Army reframed the opportunity to serve in the Army, but through a different source. The results are promising, as during the past 2 years, more than 400 of the 1,000 scholarship offers were accepted—and none of these applicants had previously applied to ROTC.

Consistent with our theoretical construct, this program was customer focused, targeted towards Millennial considerations, and information driven. The applicant was not required to fill out duplicate information, since West Point already had the information that ROTC needed to make a scholarship decision. Each applicant also received a phone call from an Army officer. This personal contact powerfully communicated the value of each young person to the Army.

A final component of the program was targeted marketing. By leveraging West Point's brand equity, which attracts the nation's top collegiate prospects, the Army gained increased access to talent at virtually no cost. This Academy's brand equity is substantial because it has produced many of the nation's famous civil and military leaders. It also derives strength from

the fact that it can be seen, touched, and experienced. In essence, West Point and its beautiful collegiate setting serves as a "storefront" for the Officer Corps, an impressive destination that completely reframes public perceptions of the Army as merely ordinary, average, physical, or a career of last resort.

In particular, West Point's standing as a premier institution of higher learning allows it to reach a much younger audience than those who are applying to colleges. Through robust NCAA-affiliated summer sports camps, scouting jamborees, and tourism, West Point allows the Army to present young people with an engaging message about officership before confirmation bias sets in. This highlights an important consideration. Rather than marketing officership in general, which blurs the message of each commissioning source, the Army may derive greater benefit by leveraging the brand equity of its better known commissioning sources and then cross marketing excess applicants to its other programs.[18]

Targeted Marketing.

The "America's Army" game is a prime example of a program that accounts for imperfect information and irrationality by adapting new media and technology to communicate Army opportunities to young adults. Launched in 2002, this multiplayer online video game places the Army squarely inside youth popular culture. It allows players to test-drive the Army in a virtual environment and gain volumes of accurate information at no cost. Designed to account for key decision-making heuristics and biases likely to afflict the market for new Army talent, the game provides a platform for the Army

to communicate with its prime market of potential applicants. "America's Army" exposes users to the organizational values, opportunities, and requirements of military service with sufficient vividness to separate the gist of serving in today's Army from the gist of service conveyed by the media or Hollywood. It embodies teamwork and draws upon realistic mission scenarios, teaching young adults lessons about Army culture within an engaging pop culture format that resonates with them. Consistent with the approach outlined in Figure 10, it is engaging, informative, social, and interactive. To date, more than 11 million registered users of the game have spent over 250 million hours virtually exploring the Army, all at a cost that is 10 to 40 times cheaper per person-hour of mindshare than traditional media.

Building on the "America's Army" game platform, the Virtual Army Experience (VAE) provides an even more tangible and vivid Army sampling opportunity. Housed within a 10,000 square foot dome, this touring experience combines virtual world technology with functional replicas of Army materiel. It also features actual Soldiers who have served in the war on terrorism. After receiving an operations order, participants work as members of a team within virtual scenarios to achieve mission objectives linked to key organizational ethos and experiences. As a result, the VAE develops high propensity recruiting leads for the Army at a quarter the cost of traditional efforts. These leads are 10 times more likely to serve than those gained via legacy marketing events. Again, the VAE was designed with the "stair-step" concept at Figure 10 in mind.

Taking this concept even further, the Army Experience Center (AEC) draws upon many VAE

features, but rather than traveling, the experience is permanently located in an upscale Philadelphia shopping mall. Covering more than 10,000 square feet, the AEC provides a venue for teens to socialize, play video games, drive Army simulators, learn about the benefits of an Army career, and talk with peers who may also be thinking about a military career. Replacing legacy recruiting stations in care worn strip malls, this engaging experience is instead located where prime prospects actually spend a significant amount of their time. Communicating with young people about the value and importance of serving the nation as an Army officer must begin early to confront the biases and heuristics associated with accurate and vivid information, inappropriate framing, and confirmation bias.

BUILDING FLEXIBILITY INTO THE ACCESSIONS PROCESS

With college serving as one of its key screening, vetting, and culling mechanisms, the Army must ensure its accessions strategy accounts for the significant time lags between accessions decisions and outcomes. For example, ROTC's decision to return to a centralized scholarship offering will not produce tangible results for at least 4 more years. Over this period of time, other policy decisions, economic shocks, and generational shifts can affect the outcomes intended by going back to a centralized scholarship offering.

These affects are often amplified by the inconsistent alignment of resources with time. For example, the juxtaposition of ROTC's 4-year officer production timeline with the Army's annual funding priorities can

create a whipsaw action, undoing thoughtful policy decisions made a few years ago if funds are tight in the current year. This is problematic because scholarships offered today have little value if the Army cannot fund them until a student's completion of his or her degree program years later. A related inconsistency is the occasional effort to make "year-end" money available to ROTC, of limited utility to a program whose scholarship dollars are tied to collegiate billing schedules rather than federal budget cycles.

Another challenge is the number of officers that can be produced by West Point and the ROTC scholarship program, neither of which can rapidly increase year-over-year officer production without dramatically lowering the rigor of their screening, vetting, and culling. As a result, during recent and unanticipated increases in new officer requirements, the Army seemingly had few quick-turn options other than OCS. If, however, it had been forward looking enough to maintain ROTC resourcing at levels producing an adequate number of talented Reserve Component officers, the Army could have mobilized those officers to meet short-term spikes in active service demand. It could have then ramped up ROTC and West Point to meet increased long-term demand, while OCS production remained at previous levels.

Based upon the "average cost per commission" chart shown at Figure 4, some may argue that OCS expansion is the most cost effective officer accessions option available to the Army. However, the question of growing accessions from existing programs is not an average cost question, but a *marginal cost* one. It is the cost of producing one additional officer given that the existing commissioning programs are already in

operation. When comparing marginal costs across these programs, a completely different picture emerges. West Point is actually the least expensive method of commissioning one more officer. The costs invert because fixed costs are already covered. Once the Army built West Point and resourced it with staff and faculty, the only additional costs to producing another lieutenant at the margin are cadet pay and food. As noted in Figure 12, the marginal cost of an ROTC scholarship officer depends on the attributes of the school attended.[19] Meanwhile, the marginal cost of increased OCS-IS is high because of the replacement costs necessitated by poaching a talented enlisted Soldier or NCO from the ranks.

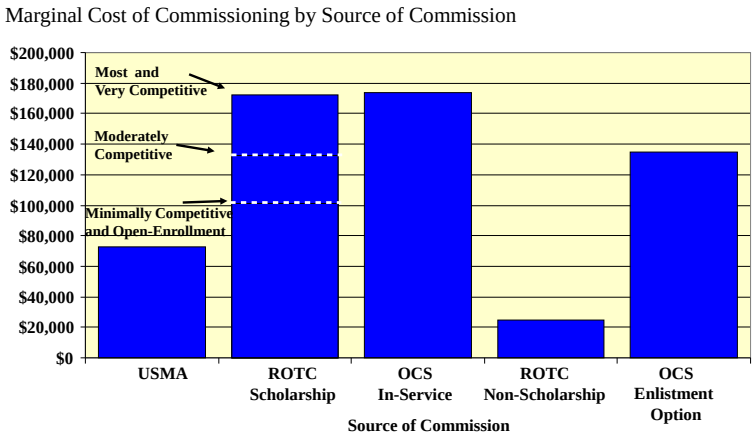


Figure 12. Marginal Cost of a Commission by Source

Building from this marginal cost analysis, there are several ways the Army could exploit excess capacity in its more rigorous screening, vetting, and culling commissioning sources. For example, expanding the

U.S. Military Academy Preparatory School (USMAPS) could help mitigate the worst effects of sudden, unanticipated increases in Army officer demand. Currently, USMAPS exists only to provide incoming cadets to West Point. Expanding its output to send qualified USMAPS graduates into other officer accessions programs could quickly help fill shortfalls in new officer requirements.

Another initiative could be a "West Point without Walls" program, which would have each of its 4,400 cadets spend a semester outside of the Academy, perhaps studying abroad to receive cultural immersion benefits. Alternatively, they could spend a semester at Army ROTC host universities, broadening the experience of cadets from both commissioning sources and creating powerful peer relationships that would be useful after commissioning. By leveraging the fixed capital and infrastructure of other institutions in this way, the Army could grow West Point's enrollment by perhaps 500 cadets, all without a corresponding increase in its own fixed capital costs. These additional cadets would be subjected to West Point's rigorous screening, vetting, and culling mechanisms, expanding its output by up to 125 officers each year without compromising commissioning standards. The costs of such an initiative would be relatively small—just the tuition and travel expenses of those cadets studying at other institutions.

CONCLUSION

The U.S. Army requires talented officers at all levels—it is integral to American national security strategy. Unlike other large enterprises, however, the Army cannot buy talent from other firms to fill its

officer gaps. The Officer Corps embodies a unique profession whose core warfighting abilities and culture takes years to develop and cannot be found elsewhere. This limits lateral entry and means that the Army must live tomorrow with the officer talent it brings in today. Each annual cohort of new lieutenants therefore represents far more than the Army's latest crop of junior leaders. They are the feedstock for its future field grade and general officers. As a group, they must possess the depth and breadth of talent needed not just to lead platoon-sized formations, but to meet future operational and strategic leadership demands as well.

Because the Army must compete in the American labor market for talent, officer accessions are a dynamic and ever-changing endeavor. To succeed, the Army must understand market conditions, continuously refine its communications with prospective talent, and shape proclivities to a career of officer service, all the while adjusting to market shocks and shifting generational preferences.

In all other areas of officer talent management (employing, developing, and retaining), the Army faces a zero-sum game—if it employs talent in one area, it is unavailable elsewhere. By committing the right talent and resources to its officer accessions effort, however, the Army can increase overall talent levels without harming itself elsewhere. In the long run, this is a positive sum game, one where the capabilities of the Officer Corps rise due to human capital acquired from outside. Achieving strategic-level outcomes of this kind requires an accessions strategy grounded in sound theory.

V

DEVELOPING OFFICER TALENT

INTRODUCTION

"Reach out and touch someone." "A diamond is forever." "When it rains it pours." These catchphrases, and many others, were the work of N. W. Ayer and Son, America's first advertising agency. Perhaps their best known work, however, was the campaign they devised for the U.S. Army in 1981—"Be all that you can be."[1] The message could not have been clearer: If you join our team, you'll reach your full potential. A rich mix of educational, training, and leadership experiences would engender a personal transformation, perhaps even the chance to elevate one's socioeconomic status.

This effort to brand the Army as a crucible of individual development continues today. Current advertising still touts it as a capstone developmental experience—*You made them strong—we'll make them Army Strong*. The all-volunteer Army is almost universally acknowledged as an institution that powerfully develops talent in areas such as leadership, teamwork behavior, work ethics, adaptability, fitness, and many others. Employers know that the Army invests substantially in its people and that this investment translates directly into enhanced productivity.

For officers in particular, the Army provides most with a 4-year college education, initial military training, and an opportunity to lead a platoon of 30 to 50 Soldiers immediately upon graduation. Few people will supervise an organization that size in their lifetime, let

alone at such a young age. With such robust developmental opportunities, it is not surprising that corporations aggressively recruit junior Army officers.

Yet despite its well-earned reputation in this area, the very nature of *talent development* requires that the Army remain vigilant. It must be forward looking, considering whether its current officer development programs are equal to *tomorrow's* challenges, whether it suffers from an imbalance in talent supply versus demand, and whether there is an effective relationship between its developmental and employment strategies.

To succeed, Army officer development programs must be grounded in a talent management context. Recall that we defined talent as the intersection of three dimensions—skills, knowledge, and behaviors—that create an optimal level of individual performance, provided the individual is employed within their talent set. As a companion to this taxonomy, we espoused the concept that each person's talent set represents a *unique* distribution of skills, knowledge, and behaviors, and that each organization in turn requires a *unique* distribution of individuals.[2]

Considering development within this context builds upon traditional human capital theories championing formal training and education as the twin pillars of development. While these are certainly important, managing the nexus of individual talents and rapidly changing organizational requirements calls for careful attention to many other factors. These include professional networks, mentorship and peer relationships, tenure, individual learning styles, as well as diversity of thought, experience, and culture.

Additionally, the complementary nature of capital and labor as production inputs requires that they be

developed in mutually reinforcing ways. For example, Army talent development must integrate technological innovations to maximize output. The speed of such innovation requires organizations possessing both broad and deep talents. This mitigates risk in a rapidly changing environment, increasing the likelihood that the right people will be available to respond to technology-driven labor requirements. Without sufficient depth and breadth of talent, however, an organization may be unable to leverage new innovations that can push a production possibility frontier higher.

THE IMPORTANCE OF DEVELOPING OFFICER TALENT

Developing talent is important in all high performing organizations, but it is particularly critical to the Army for several reasons. First, the mission of fighting and winning wars requires truly championship-level talent—America's national security depends on it. Second, Americans entrust the very lives of their sons and daughters to the Army—they deserve to be led by superstars. And third, limited lateral entry into midcareer and senior level officer positions means the Army cannot rely upon poaching talent from outside organizations as corporate America does. Instead, the Army must retain and continuously develop its entry level talent to meet present and future demands.

Development also plays a significant role in screening, vetting, and culling officer talent. By setting the bar for Reserve Officer Training Corps (ROTC) scholarships commensurate with challenging admissions standards at top-tier universities, for

example, the Army uses a key developmental opportunity— undergraduate education—as a *screening* tool. As cadets compete within an ROTC program, the Army is able to *vet* talent. Finally, cadets who are unable to complete their academic and military development programs are *culled* from the talent pool prior to commissioning.

Additionally, strong developmental programs can help reduce talent flight, something that has challenged the Army since the advent of the information age in the early 1980s. For example, when college coaches recruit, they seek players with a certain talent level and potential for growth. In turn, players seek programs that will extend their talent, perhaps even providing an avenue to a professional career. Those who feel they have professional potential but are not getting the development they need will opt out of the program. Likewise, Army officers are hungry for the development needed to reach their full potential and perform optimally. When they do not get it, they seek it in the private sector. This is just one more reason why the Army's developmental programs must be tailored to the needs of every talented individual.[3]

However, tailored career development runs counter to current Army practice, which generally shunts its officers down conventional career paths and through standardized "gates," regardless of their unique talents, experience, or needs. To its great credit, the Army robustly resources these career paths and embraces the need for continuous development of its people. As a result, it is better led and more capable than any of its peer competitors.

As the world transitions from information age to conceptual age, however, those competitors have

become more than just standing armies. Today, the U.S. Army faces an asymmetric threat environment that changes more rapidly than its doctrine or organizations. Work is increasingly characterized by high levels of task interdependence, skill specificity, *and* uncertainty, requiring people who are agile, inventive, and empathetic. Just as this new world necessitates changes in the way the Army *accesses*, *retains*, and *employs* officer talent, data suggest that it may also need to change how it *develops* it, and in several areas.

INDICATIONS OF POTENTIAL DEVELOPMENTAL SHORTCOMINGS

A primary area of concern is the continuing decline in the Army's training and educational base (the Institutional Army or "Generating" Force). According to the Army's Training and Doctrine Command (TRADOC), the sustained demand for thousands of uniformed trainers in Iraq and Afghanistan has increasingly placed the Army's own developmental programs at risk.

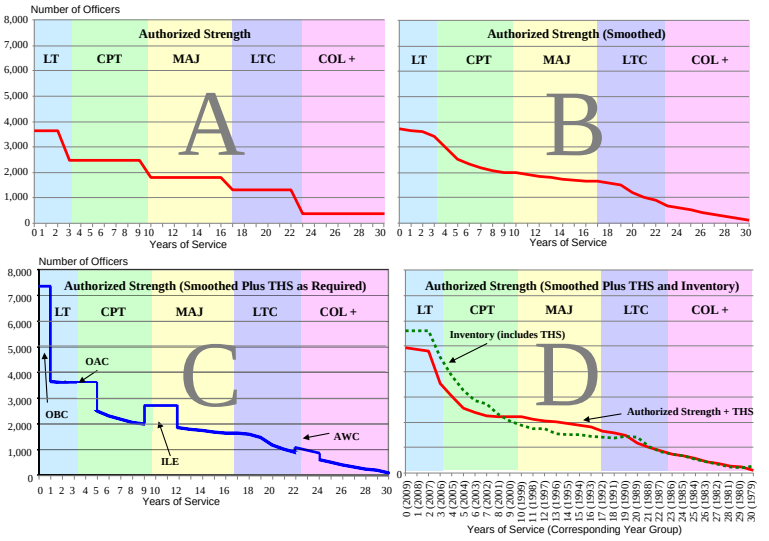
Symptoms include: delays in initial instruction for nearly 500 Army aviators due to a shortage of trainers; deep declines in the number of Soldiers and Army civilians planning and executing institutional training (a combined decline of 11,800 professionals since September 2001); significant delays in updating doctrine and programs of instruction; an increasing reliance upon contract employee support; a much higher number of lieutenants, rather than captains, in command of Basic Combat Training companies; and poor officer-to-student ratios in ROTC. For example, at five of the nation's six largest ROTC programs, those

ratios now exceed 1 to 45 and in some cases are as high as 1 to 76.[4] This is a classic case of time inconsistent behavior—allowing present operational demands to crowd out consideration of the Officer Corps' future well-being.

Another area of concern is closely linked to the Army's officer "Transients, Holdees, and Students" (THS) account, an authorized overhead of officers not assigned to operational or institutional organizations in the Army. Theoretically, this protects the Army from officer inventory shortages. For example, officers attending graduate school are accounted for in THS. Were there no THS account, these officers could not attend school because pulling them out of operational assignments could undermine unit readiness. In other words, the THS account is an investment in the future, an acknowledgment by the Army that there must always be a certain number of officers in nonoperational, administrative, or developmental assignments.

There are significant mismatches, however, between the Army's authorized officer strength and the actual inventory throughout the officer career model. These overages and shortages at different ranks present the Army with significant challenges when moving officers in and out of the THS account for developmental purposes. In some cases, this results in deferred development for officers who simply cannot be pulled out of units in time of war. Figure 1 describes this situation with data that depicts the authorizations and inventories of the Officer Corps as of September 2009. Panel A shows authorized Active Component officer strength by years of service and rank. In panel B, we

smooth these numbers to account for year-to-year attrition behavior.



Note: All calculations include Army Competitive Category Officers plus Medical Service.

Figure 1. THS and Authorized Strength/Inventory Mismatches

Panel C indicates where targeted THS increases are needed to meet currently mandated developmental opportunities at each rank. Panel D shows the continuum of operational requirements plus THS requirements (solid line) smoothed to allow for historic attrition behavior. This last panel also presents the *actual* officer inventory by year-group (dotted line), highlighting the dramatic difference between what the Army needs and what it actually *has* at each rank. Such mismatches between requirements and inventory significantly hamper professional development at both the company and field grade levels.

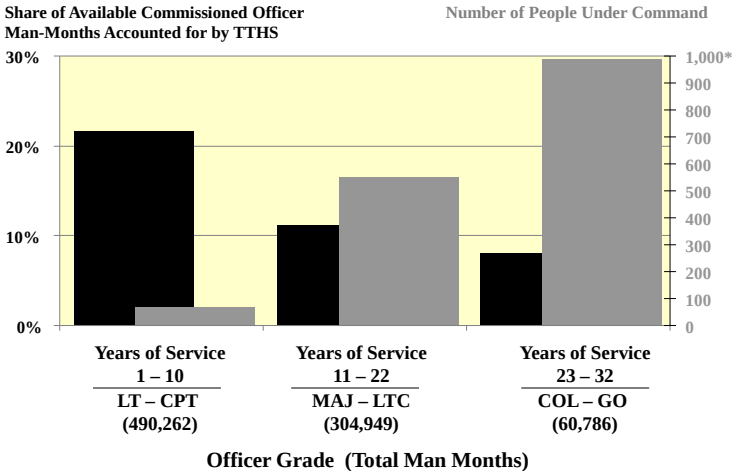
For example, as panel D shows, the Army has been over-accessing lieutenants for almost a decade to make up for officer shortages elsewhere (senior captains and majors). This created an excess of lieutenants which now extends deep into the junior captains inventory as well. Not surprisingly, developmental time in key jobs (such as platoon leader) has been compressed to allow sufficient throughput for this growing queue of junior officers.[5]

Conversely, the shortage of mid-career officers (majors) creates tension between meeting current operational demands and providing officer development time. Understandably, the Army is not going to assign officers to developmental opportunities when it creates warfighting unit vacancies—hence development suffers at these ranks. Only when officer requirements and inventory align closely (and when THS is appropriately sized) can the Army meet operational demands without sacrificing talent development.

A second potential challenge is the inverse relationship between the formal developmental time afforded officers and their increasing levels of responsibility across a 20-30 year career. As seen in Figure 2, the Army directs the largest share of its formal developmental programs toward the early stages of an officer's career.

This is not entirely surprising, as most companies put great effort into "on-boarding" new people, introducing them to their duties, the organizational culture, etc. In the Army's case, approximately 20 percent of all company grade officer man-years are spent in a training status. What *is* surprising, however, is that less than 10 percent of Army field grade and general officer man-

years are spent in a training or development status. This is in stark contrast to the relationship that exists between responsibility and rank. As the right axis of the figure shows, an officer's span of control over people, resources, and outcomes increases significantly with rank.[6] In short, there is a precipitous decline in formal development just as job complexity rapidly increases.



Note: statistics shown above were derived from authors' calculations based on Army Personnel Inventory data as of 30 September 2008.

*As Division Commanders, GOs generally have ~10,000 or more people under their command..

Figure 2. Development Time is Inversely Related to Rank

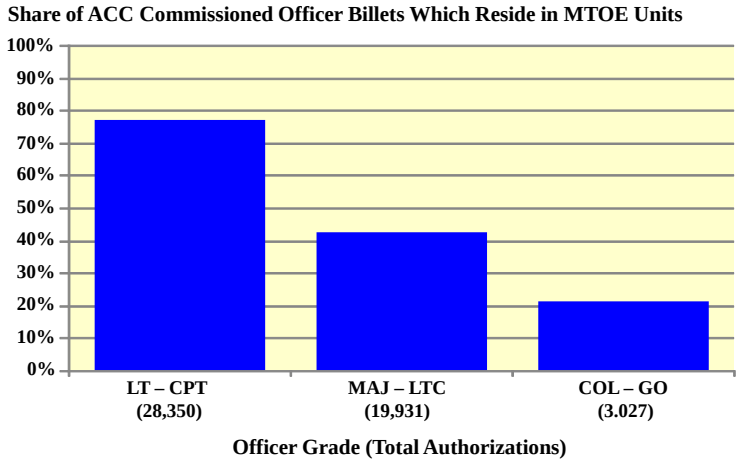
Undoubtedly, on-the-job training compensates for some of this gap in senior ranks development. However, much of that development takes place in tactical to operational level assignments with very uneven skill transferability to the strategic levels of leadership. In

other words, aside from relatively short courses for officers transitioning into new career fields, the Army is tied to a predominantly "one-size fits all" approach to officer development that short-changes its senior leaders, those most responsible for successful enterprise-level outcomes.

The extent of this misalignment can be seen in Figure 3, where the share of officer assignments in operational units declines sharply with increasing rank. Fewer than 25 percent of colonel-and-above officer positions are in the Operating Force, while the remaining 75 percent reside in the Generating (Institutional) Force, where strategic issues predominate. Most senior officers assigned there, however, will have spent the bulk of their "on-the-job" developmental time focused upon operational-type matters.

Meanwhile, the formal "executive-level" education that does occur (at institutions such as the U.S. Army War College or the National Defense University) focuses broadly upon strategic art—the knowledge required to employ landpower at the theater or national level in time of war.[7] While *absolutely* necessary, this alone cannot prepare senior leaders for the nearly 80 percent of their future employment which will be in highly specialized, enterprise-level assignments. This is the "business side" of the Army: budgets, personnel, weapons systems, training, recruiting, marketing, civil-military relations, etc.[8] In fact, the dissonance between such responsibilities and formal preparation is striking—senior officers often find themselves employed in highly specialized enterprise program areas without having been afforded the executive education needed to excel.[9] Often, any depth of talent acquired by officers in these areas is ancillary to the

Army's broader developmental objectives, and as a result, it is rarely identified, leveraged, or further extended.



Note: statistics shown above were derived from authors' calculations based on Active Army Authorization data as of 30 September 2008. All calculations include Army Competitive Category officers plus Medical Service.

Figure 3. Declining Operational Billets With Increasing Rank

In sum, to meet future challenges, talent *development* must be synchronized with the other components of the officer human capital model (talent *accessions*, *retention*, and *employment*), tied to requirements across the rank structure, and closely tracked. The Army can then construct a powerful and effective officer development strategy, provided it rests upon sound human capital theory.

OFFICER DEVELOPMENT WITHIN A HUMAN CAPITAL THEORY FRAMEWORK

Since the late-1950s, the study of human capital has become one of the largest bodies of academic research, spanning multiple disciplines. With Gary Becker's seminal *Human Capital* as our start point, we review the literature and highlight those ideas most critical to talent development within an Army officer context. Before doing so, however, we should first explain the relationship between human capital and our talent construct.

The Relationship between "Human Capital" and "Talent."

As we have explained throughout this series of monographs, employees gain *human capital* (the ability to produce value in the workplace) through education, training, and experience, thus increasing their productivity.[10] These are additive to the attitudes and native abilities they bring to the workplace. Within human capital literature, this is often expressed as an equation (EQ.1, where u = other unobserved attributes):

Human Capital = Ability + Education + Experience + Training + Attitude + u.

Our talent-based construct builds upon human capital theory. An example helps illustrate the relationship between human capital and talent. Consider John, a carpenter who acquires a business degree. This does not necessarily increase his work-shop

productivity. While John's college studies will certainly hone his cognitive abilities, they may also create employment preferences that are no longer met, reducing his productivity as a carpenter. John's new business degree does not appreciably extend his talent advantage as a carpenter, even though it clearly represents a human capital investment.

Instead, acquiring a business degree has fundamentally altered John's talent distribution, which may now be better suited to another job. Should John's employer align this new talent distribution with a position requiring business acumen *and* mechanical dexterity (say carpentry shop supervisor), John's productivity may soar, his talent advantage extended by his employment in the right place and time.

The relationship, then, between human capital and talent centers upon distributions—people have unique talent distributions, organizations have uniquely distributed employment requirements, and these must be aligned to generate optimal productivity and continuous employee development. Investments in human capital shape an individual's talent distributions (their skills, knowledge, and behaviors). Therefore, human capital investments must be thoughtfully weighed against these distributions or they can actually cause talent mismatches, engendering reductions in productivity.

Understanding the linkage between human capital theory and our talent-based construct is fundamental to forming a developmental strategy for the Army Officer Corps. Our conclusions are informed by the work of several Nobel Laureates and other accomplished scholars. In particular, four theories have helped frame our ideas regarding officer talent development. They

reside in the areas of *intelligence, adaptability, attitude,* and *signaling.*

Intelligence.

When we began writing about talent, we made it clear that the work of Howard Gardner was integral to our thinking. A professor of psychology, cognition, and education, Gardner defines *intelligence* as "the ability to solve problems, or to create products, that are valued within one or more cultural settings."[11] In his *Frames of Mind: the Theory of Multiple Intelligences* (1983), he identified several native intelligences possessed by all people to varying degrees: linguistic; spatial; musical; bodily-kinesthetic; logical-mathematical; interpersonal; and intrapersonal.[12]

We see clear evidence of Gardner's theories in our everyday lives. One needs look no further than a kindergarten classroom to see the variety of intelligences possessed by people, even at a very young age. Some children can walk a balance beam with little effort (bodily-kinesthetic intelligence), others make friends quickly (interpersonal intelligence), and still others can sing in tune (musical intelligence). As these children progress into adolescence, they are very often drawn towards activities and subjects where their natural intelligences help them to perform optimally.

Although we enter the world more intelligent in some areas than others, education, training, and life experience can increase our less-dominant intelligences as well. A formal mathematics curriculum, for example, will develop logical-mathematical skill, although those who naturally possess an abundance of this intelligence may progress faster and deeper.

Gardner's ground-breaking work contributes the element of individual *uniqueness* to our understanding of talent. Each of us in some ways is like an independent nation, and our intelligences are analogous to natural resources. While some countries may possess similar resources, no two possess them in equal measure, and those resources necessarily shape the scope, pace, and direction of development. It is no different with people.

Adaptability.

The award winning work of Nobel Laureate Theodore Schultz supports Gardner's contention that people develop talent most rapidly and powerfully in the fields to which their intelligences draw them. Schultz's research also focuses upon the need for highly adaptive people in organizations facing constantly changing requirements.[13] The Army has recognized this, and virtually all of its officer development pronouncements call for adaptable leaders to meet today's challenges. Yet what is the Army doing to create such adaptability? What *should* it be doing?

Schultz emphasizes the criticality of knowledge acquisition (particularly education, but also experience and training) to the development of mental acuity and agility. He also argues that people are either in *equilibrium* (an ideal balance between work capabilities and work requirements) or on their way to it.[14] Ideally, an employer such as the Army wants workers who rapidly achieve equilibrium, but the employer has a pretty critical role in ensuring this.

Consider Major General George Brinton McClellan, Lincoln's on-again, off-again commander of the Army of the Potomac during the American Civil War. Returning

to service in 1861 as a major general (having resigned as a captain in 1857), McClellan rapidly built, trained, equipped, and concentrated that army for battle. In terms of capability, by mid-1862 it numbered over 168,000 men and was far superior in training, discipline, and combat power to any Confederate force, no mean feat in a country which had just 20,000 regular Soldiers spread across remote frontier posts and coastal fortifications a year or so earlier.

Even President Lincoln credited McClellan with having carried off a masterful organizational effort. But in one of the most astute talent assessments of the day, Lincoln characterized McClellan this way: "He is an admirable engineer, but he seems to have a special talent for a stationary engine."[15] In other words, the adaptability required to build an army was clearly within McClellan's talent set, but the adaptability needed to *wield* one was not.

Looking back, the appointment of a former Army captain and railroad engineer to command all Union armies may seem like a foolish decision. Lincoln had few choices, however. No one had anticipated the need to lead mass armies in a bitter North American conflict, and so no officers had been educated to the purpose. McClellan was asked to figure it out but could not do so rapidly enough. His success as an organizer but failure as a commander illustrates the criticality of developing adaptable people and employing them in areas commensurate with their talents. It is a lesson worth remembering, particularly when today's Army asks its senior generals to lead strategic business efforts after 30 years of tactical and operational assignments, often with little or no formal development in these business areas.

Attitude.

Understanding attitudes is critical to creating a workforce whose behaviors align with organizational culture and objectives. This leads directly to enhanced productivity and development. Samuel Bowles, an economist and behavioral scientist, argues that the most important selection feature for a job candidate is attitude.[16]

We agree that attitude is vitally important. It shapes behavior, just as values, goals, and beliefs do. Attitude is conveyed through action, word, facial expression, writing, and gestures. It is infectious, affects the quality of the work environment, and can improve (or reduce) the productivity of co-workers. It can also set the rate at which individuals develop and extend their talents.

Understanding attitudes requires an appreciation for how they are formed. While they may have a hereditary genesis, attitudes are also learned and can be shaped through developmental experiences. These include upbringing, socio-economic background, education, athletics, peer or mentor relationships, etc. Appreciating the importance of attitude from a strategic perspective is imperative for organizations such as the Army, which is both teamwork intensive and routinely confronted by life and death matters.

Signaling.

Spence, Schultz, and Bowles all address the productive capabilities *possessed* by workers. Nobel Laureate Michael Spence, however, focuses on the productive capabilities *signaled* by workers, particularly via credentials such as diplomas and certifications.

Spence explains that these are central to most professions and vocations, indicating the presence of talent that might otherwise go unobserved.[17] Doctors, for example, routinely display their diplomas to engender patient confidence, mechanics post ASCE certifications to validate their expertise, and barbers hang their training and licensing certificates near the cash register for the same reason.

Professional clothing and accoutrements are equally powerful validation signals. Factory foremen often wear different colored helmets to signal their leadership role. At a construction site, one can differentiate carpenters from plumbers and electricians by the tools that they carry. And each of us knows better than to ask firefighters to apprehend a criminal.

Usually, there are *negative costs* (sacrifices) associated with acquiring *positive validation* signals (positive because they are valued by employers), such as studying long hours, writing lengthy dissertations, enduring physical hardships, paying high tuition costs, spending time away from recreational pursuits, enduring separation from family, logging years of on–the-job training, etc. High negative costs communicate significant information about an employee's skills, knowledge, and behavior. Credentials received at low or no cost, however, communicate very little about the productive capabilities of an individual. Significant negative costs are therefore necessary to provide value to a credential.

Developing talent through degree and certification processes is vitally important to the Officer Corps because lives hang in the balance. Credentials help the Army build its talent inventory, signaling which officers possess capabilities in which areas. This allows the

Army to rapidly respond to crises and reveals talent gaps that must be filled via changes to its accessions or developmental systems.

Signal theory has important implications for every officer as well. Within the Army, the value of each signal (running the gamut from a graduate degree, to airborne wings, to a language proficiency test score) is generally understood, and the incentives to obtain them are clear and useful. In fact, the "loudest" signals in the Army (i.e., its most valued credentials) drive the self-development efforts of its people and say much about its overall culture.

For example, in less than a decade, graduate school opportunities for Army officers dwindled from more than 7,000 slots per year in the mid-1980s to fewer than 400 a year by the early 1990s.[18] The message to the Officer Corps (sent well before the current conflict began) was clear—continuing education is less important to your profession. In any organization, deemphasizing educational credentials forces those who value education to seek it elsewhere and can only foster an anti-intellectual culture, twin developments that fly in the face of today's talent requirements.[19] Going forward, the Army must continuously evaluate whether the signals it values are truly incentivizing officers to develop the talent it needs.

ESTABLISHING A TALENT FRAMEWORK GROUNDED IN HUMAN CAPITAL THEORY

To apply these theories practically, and to ensure it continues to develop the talent it needs, the Army should consider changes to its officer evaluation and

education systems, as well as to policies with counterproductive signaling implications.

Framework for Evaluating Talent.

In a world that increasingly acknowledges the criticality of ability, learning style, and behavioral screening to create effective developmental programs today, the Army stands oddly apart. While it has implemented screening measures in the past, its emphasis upon them has waned over the years. The last vestige of such screening was the Officer Selection Battery (OSB), which was discontinued in 1996.[20]

The Army still requires officers to possess college degrees, and because it does not dictate areas of study, the degrees obtained by each individual could form the basis of a diligent screening effort. The Army does not use this information, however, nor are individual learning styles and behaviors considered. Instead, after commissioning and throughout their careers, each officer is viewed as being made of the same clay. Through force of culture, tradition, and training, the U.S. Army will form them into the type of officer it needs—an interchangeable one.

Evidence for this one-size-fits-all industrial-era approach can be found in the Officer Evaluation Report (OER). The Army has been evaluating officers with annual reports since the 1920s. Its current report form (DA Form 67-9) records administrative data, duty description, performance evaluation based on professionalism metrics, rater comments, senior rater comments, a forced distribution rating for field grade officers and above, and a listing of "best fit" future assignments.

One obvious shortfall of this evaluation format is that each officer is assessed against an identical framework of skills, knowledge, and behaviors. While we would be first to argue that commissioned service requires non-negotiable core attributes, particularly in the realm of behavior, should an engineer platoon leader be assessed against the exact same measures as an infantry brigade commander? Evaluating these officers, who should have very disparate performance and potential, against the same generic criteria reduces the Army's ability to understand how current performance best translates into future talent matches.

Additionally, the current evaluation form compares an officer to the peers within his or her unit via "forced distribution." Rules for the forced distribution have changed over the years, but they currently preclude senior raters from designating more than 50 percent of officers "above center of mass" (ACOM) for any rank at any point in time. A negative consequence of these rules is that for every ACOM rating, another officer receives a "center of mass" (COM) or "below center of mass" (BCOM) rating. This can be interpreted as being in the bottom half of the performance distribution—not a generally welcomed position. Moreover, it does not give promotion boards information as to *where* an officer ranks in the top or bottom half of the distribution.

There are better ways to convey information about relative performance to both the officer and to selection boards, specifically by establishing equilibrium between positive and negative incentives. As a hypothetical example, consider the difference between today's *bi-modal* OER distribution (where an officer is either above or below a single performance threshold), and a *tri-modal* distribution, stratified into three segments. Each

would have a forced rating percentage based upon unit density/type, or perhaps annual promotion rate targets.

Let us say, for example, that the Army wanted to promote 10 percent of an officer cohort early ("below" the zone), 70 percent on time (the "primary" zone), and cull 20 percent. It could prescribe performance ratios of 20 percent ACOM, 60 percent COM, and 20 percent BCOM. Those receiving ACOMs would be considered for early selection, those receiving COMs would be promoted on time, and those receiving BCOMs would be put on notice that they may not be promoted at all.

Such an approach could restore confidence in more than 80 percent of officers and provide a clear mechanism for the Army to cull talent mismatches from its ranks. It could also allow the Army to focus on its BCOM population, to see if changing their career fields might get them in "equilibrium" elsewhere and make them optimal performers. Allowing ACOM-COM-BCOM percentages to shift based upon unit requirements could also introduce the flexibility needed to account for low density Army organizations, such as Ranger battalions or prime power outfits.

Another challenge is that, despite below-the-zone promotion rates occasionally reaching 6 or 7 percent, officer promotions are tied exclusively to time in grade, not talent. This is surprising in view of the three principle purposes of commissioned rank:

1. To provide authorities consistent with an officer's duties and responsibilities;

2. To signal that authority to others; and,

3. To signal the talent of the officer—the productive outcomes that they should be capable of delivering.

If talent truly informed promotion policy, officers would be assigned to positions based upon talent match, not rank or time in grade, and *then* furnished with the appropriate rank. OERs received under such conditions could then serve not just as evaluative tools but also as professional *certifications*, validating the capabilities of the officer just as other credentials do. This approach would make the OER far more useful to future development and employment decisions.

In past conflicts, the Army has demonstrated greater talent matching flexibility. Witness the relief of Bastogne, Belgium during World War II by a new lieutenant colonel named Creighton Abrams, an officer who just 2 years before was a captain and regimental adjutant. There was no dearth of lieutenant colonels in the Army in 1944, but the 37th Tank Battalion needed a commander with Abrams' particular talents, and he was given the job. As General George Patton said of Abrams, "I'm supposed to be the best tank commander in the Army, but I have one peer: Abe Abrams. He's the world champion."[21] In early 1945, Abrams was promoted to colonel so he would have the authority commensurate with leadership of Combat Command B, 4th Armored Division.

If young Captain Abrams was serving in Afghanistan today and if his commanders recognized his abilities to rapidly develop toward battalion and brigade command, they would be unable to afford him with those developmental opportunities. Conversely, if today's time-in-grade promotion requirements existed during World War II, Captain Abrams would have perhaps gone down in history as the best regimental adjutant in the European Theater of Operations, and the

cost of victory in American blood and treasure would likely have been higher.

Using Signals to Discern, not Divide.

Earlier in our discussion, we emphasized how valuable signals can be as talent development incentives. They can also help the Army to discern the particular talents in its officer inventory. Spence, however, also notes the potential harm that signals can cause, particularly if they become status symbols. It is one thing for an individual to earn a certification and have it displayed in a file, yet quite another to wear the credential on their person every day. Such practices can actually create barriers to teamwork behavior (frequent, accurate, timely, relevant, problem solving communication). It can create cliques, a sense of entitlement, and skewed notions of "who belongs" and how valuable they are.[22]

Work attire usually combines three elements—*functionality* (comfort, safety, suitability to the work), *internal signaling* (clarifying work roles within the workforce), and *external marketing* (creating a positive perception with the public or other key constituencies). Highly successful organizations consider all three very closely. Southwest Airlines, for example, which is noted for the excellent teamwork behavior of its employees, has uniforms that distinguish flight crews from flight attendants, baggage handlers, operations, and gate personnel, shaped by functional or marketing imperatives. Within each of those groups, however, uniform distinctions between supervisors and other personnel are minimized, reducing barriers to

teamwork and creating relationships based upon talent, not hierarchy.

W. L. Gore and Associates (producers of Gore-Tex) is another highly successful company that understands the ways in which work attire can create or disrupt teamwork behavior. Repeatedly identified by Fortune Magazine as one of the 100 best U.S. companies to work for, it is famous for its unique culture, one where everyone dresses identically, shares the title of "associate," and where "leaders" have replaced "bosses."[23]

We are not suggesting that the Army behave as Southwest or W. L Gore do, but that it should apply signal theory with the same care. In the Army's case, officers prominently display airborne, air assault, ranger, sapper, pathfinder, and other certifications on their uniforms. This can cause an undue focus on status and also foster misinterpretation for several reasons.

First, people often associate their own accomplishments with "absolute" success. They may surround themselves with others who they deem successful because they possess comparable certifications. Such biases result in thinking such as: I need someone to negotiate with a local sheik, they need to be as hard charging as I am, and I have a Pathfinder badge. Therefore, I need someone with a Pathfinder badge. Unfortunately, completion of Pathfinder school has little to do with negotiating with a sheik. There is nothing unconventional about this outcome, however. As Spence points out, such behavior is natural, albeit unproductive.[24]

Another cause of misinterpretation stems from outdated signals. For example, most officers wearing airborne wings earned them while cadets or shortly

after commissioning. As a result, most are not on jump status, have never been on jump status, and have never been assigned to an airborne unit. Even if they are one day assigned to such a unit, they will need to retrain/recertify before being placed on jump status. The Army's culture dictates that these officers, however, wear their airborne wings each day, even though the credential no longer signals any real ability to safely jump from a plane.

In essence, the certification itself (how to participate in an airborne operation) is less valued within the Army culture than the signal (airborne wings) is. This can cause individuals to seek certifications even when they have no real interest in the development it represents. They obtain the credential simply to ensure professional advancement, rather than to extend their talent set. Perhaps evidence for this mind-set is that when fielded in 2005, the Army Combat Uniform (ACU) was meant to display rank, name, and unit affiliation, with "optional" wear of combat/special skill badges. Today, however, it is rare to find an officer who feels there is anything optional about wearing skill badges.

To be clear—in no way are we recommending removal of certification badges from Army blue or dress uniforms, in particular because these uniforms are not worn in daily work settings. Unlike the ACU, these uniforms also serve a very important *external communications* function. This is why awards are also worn on the blue/dress uniforms and not ACUs— in formal settings, the Army *wants* the public to recognize its Medal of Honor and Silver Star winners, its wounded warriors, etc. The Army rightfully values its heritage, traditions, and the sacrifices of its Soldiers, and as active and retired military professionals, we do as well.

A cutting edge talent management system, however, should create a culture in which the most powerful certifications, the ones most valued, signal the talent needed to succeed in our times. Instead of thoughts such as, look at her, she's been to airborne school, air assault school, aviation school—what a great leader she must be, the Army should create a culture in which officer assessments are more along the lines of: look at her, that officer knows how to think, works hard, takes care of Soldiers, and is a leader of character—what a great leader she is.

The Importance of Continuing Education.

Most formal training focuses on well-defined tasks, conditions, and standards. This teaches people how to respond to things that are familiar or can be anticipated. Adaptability, however, requires developmental programs that put people in unfamiliar situations and require them to figure things out. Continuing higher education is a proven way to develop such adaptability.

Consider that for decades, agriculture and farming experienced little technological change: seasons, fertilizers, equipment, and livestock remained relatively unchanged, and farmers achieved optimal outcomes by making minor adjustments over time. There was little need for formal education—routine practice and training were sufficient. However, all this changed when technology revolutionized the farming industry in the early 1980s. Studies have shown that farmers with formal educations were far more likely to rapidly assimilate and apply these new technologies to their agricultural operations.[25]

The work of Jean Piaget, an early 20th century scholar and father of genetic epistemology, helps explain why formal education is so important to inculcating mental agility and adaptability. He divided the development of knowledge into three stages: *schema*, *adaptation*, and *equilibrium*.[26] Like Gardner, Piaget acknowledged that even babies have native skills that enable them to grab a rattle and thrust it in their mouth—a schema. The second stage, adaptation, has two components: assimilation and accommodation. When the baby comes across a new object, such as the TV remote, he assimilates the new object into the old schema and shoves it into his mouth as well. But when the infant comes across the vacuum cleaner, the "grab and thrust" schema fails because the item cannot be grabbed and shoved into his mouth. Therefore, the baby must accommodate the new object with a new schema—slap and drool. Through the process of adaptation, humans eventually reach equilibrium. This ideal state strikes a comfortable balance between the mind and the environment.

Piaget's framework of schema, adaptation, and equilibrium extends well beyond infant development. It is a process applied throughout our lifetimes. Even the Nobel Laureates cited in this monograph demonstrate this—they earned the award for bumping into new challenges, studying them, and developing new schema to explain them.

To create conditions allowing more officers to continue their educations, the Army must reorder its priorities in this area and act accordingly. If greater continuing education opportunities are created, THS numbers may need to increase, establishing a talent overhead that gives the Army time and space to create

leaders who can succeed across the spectrum of tactical to strategic challenges.

CONCLUSION

To maintain the Army's excellence as a developmental organization, vigilance is required, as well as a strategy rooted in sound theory. In particular, because much of the Army's developmental opportunities revolve around on-the-job training, a close relationship between its talent *development* and *employment* strategies is crucial. Successfully synchronizing the two will also yield greater success in *accessing* and *retaining* officer talent.

As we have seen, Becker, Schultz, Spencer, Bowles, and other pioneers in the human capital field have provided a ready foundation for the creation of a comprehensive and forward-looking officer development strategy. Their work helps us to understand the criticality of continuing education, genuinely useful evaluations, and properly valued signals to the creation of an outstanding developmental climate. They also make clear that each individual is unique, and that to maximize their development, the Army needs as many career paths as it has officers. In this way, the Army can both deepen and broaden its overall talent distribution, mitigating risk in an increasingly uncertain and rapidly changing operating environment.

To reap the full benefit of current and future developmental efforts, the Army must begin to capture information on the multitude of talents that its officers possess. The uniqueness of each individual demands a new paradigm that moves beyond skill identifiers and

career fields. Instead, the Army needs a mechanism to track talent development over time, gauging both its breadth and depth. Only then will it be able to effectively *employ* talent, the subject of the next and final monograph in this series.

VI

EMPLOYING OFFICER TALENT

INTRODUCTION

In 1911, Frederick Winslow Taylor, a mechanical engineer, published *The Principles of Scientific Management.* His premise was that, in general, workers performed at the slowest rate that goes unpunished, something he (ironically) referred to as "soldiering."[1] To rectify this, Taylor devised a method for improving worker productivity. First, the employer would break skilled labor requirements down into smaller, less skilled labor tasks. Next, the employer would "scientifically" identify the "one best way" to perform these smaller tasks to save time and costs. Workers would then be selected, trained and employed to exacting task standards.

In an era worshipful of science and in the throes of industrialization, scientific management, or "Taylorism" as it came to be called, was a tremendous hit. Bethlehem Steel, Henry Ford, and other manufacturers employed it in their factories, sometimes doubling or tripling output. Even today, this sort of task-oriented work optimization continues in several industries.

The drawbacks of Taylor's program, however, were significant. Chief among them, it failed to recognize that the most efficient way of working for one person might be inefficient for another. It made work repetitive, tedious, and uninteresting. It stifled self-development and smothered employee decision-making or innovation. Lastly, it treated people like interchangeable

parts, employing just a fraction of their unique talents.[2]

In the Information Age, jobs are becoming more complex, not less so, requiring employees who are agile, inventive, and empathetic. Work is increasingly characterized by high levels of task interdependence, skill specificity, and uncertainty. In addition, today's enormously competitive labor market gives educated professionals the option of seeking new employment whenever a company fails to give them sufficient voice in their work. In short, the industrial era, during which "bosses" unilaterally made employment decisions, is over.

Today, the most successful enterprises unleash the full potential of their workers by collaborating with them rather than dictating to them. In this more equitable environment, prospective employees and employers seek information about each other. Ideally, they will enter into mutually beneficial relationships characterized by high productivity and the initiative, innovation, and tenure born of true job satisfaction.

Employing people optimally is not easy, however. It requires the ability to access the talent in demand, to develop it to meet both current and future demands, and to retain it in an extremely competitive American labor market. If that were not difficult enough, optimal employment engages the critical component of *timing*—getting an employee in position as he approaches the apex of his productive capability *in that position*. By this, we mean that both work requirements and individual talents are always changing—the talent match that may have been optimal 2 or 3 years ago may become less so over time, either because the requirements have changed, the employee has, or both.

Organizations therefore cannot become complacent—they must continuously evaluate their talent and their requirements, ensuring that when warranted, people are afforded new opportunities to make optimal work contributions.

Effective talent *employment* is at the core of the Army Officer Human Capital Model—to provide optimally performing officers in all areas (see Figure 1). Getting it right directly supports talent development. It improves job satisfaction, simultaneously increasing talent retention. Moreover, highly productive and satisfied employees are the ultimate recruiting tool, making future talent *accessions* easier.

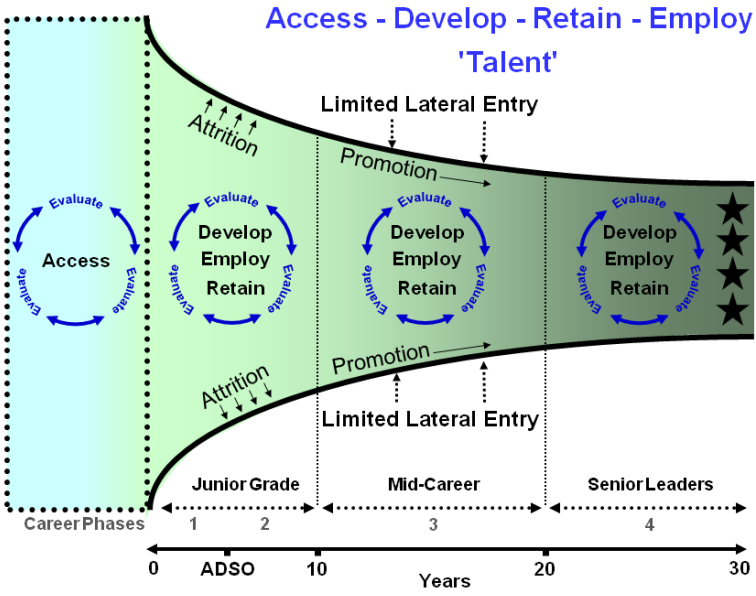


Figure 1. Army Officer Human Capital Model

In sum, optimal talent employment expands the Army's production possibility frontier—it can do more with existing resources.[3] It also helps ensure that the Officer Corps possesses the depth and breadth of talent needed to meet the twin challenges of a competitive labor market and an increasingly uncertain operating environment.

OFFICER EMPLOYMENT PRACTICES: OUR BIGGEST AREA OF CONCERN

Throughout this monograph series, we have explored several talent management challenges with implications for the future well-being of the Officer Corps. In Volume 3, we discussed the harm caused by low junior officer retention, a challenge now being redressed via the Officer Career Satisfaction Program (OCSP). In Volume 4, we identified accessions practices that not only stunt Army efforts to acquire the officer talent it truly needs, but also rob it of talent needed elsewhere. In Volume 5, we argued that Army officer development practices, which for years have received high marks from most quarters, must keep pace with emerging challenges via changes in its developmental culture, education, and evaluation practices.

All of these talent management challenges are cause for concern, thought, and action. In our opinion, however, the greatest challenge is the one we are focused upon here—the way the Army employs its officers. Its current employment paradigm is industrial (almost feudal) in nature, running counter to best practices. The Army unduly prioritizes "fairness" when making assignments, has a narrowly defined pathway to senior leadership ranks, cannot see the talent it

possesses, and suffers from severe principal-agent problems. We will explore each of these challenges in turn.

Fairness.

When an officer hears from Human Resources Command (HRC) about a potential assignment, his or her pulse quickens. It is an understandable response. Assignments dictate where the officer will serve for the next 2-4 years, whom he will serve with, and what he will do. Assignments have an outsized impact upon an officer's future advancement opportunities, as well as upon his or her family and quality of life. Working through it all can be an emotional process.

For the Army, of course, assignments should have no emotional component—they are simply the mechanism through which it derives production from each officer. Yet, in a well-meaning effort to take care of its people, the Army's current officer assignment process focuses much more upon "fairness" than it does upon coolly optimizing officer productivity. Instead of talent considerations, each officer's "dwell" (non-deployed) time, "boots-on-the-ground" ("BOG" or deployed) time, number of deployments, and the number of overseas postings dominate future assignment decisions.

In fact, an HRC branch representative may well begin an officer's assignment interview with this type of a comment: Let's see, you've been in CONUS [in the continental United States] for 3 years—time to get you back in the fight, or: We need to get you an assignment where you can 'take a knee'—you've had two overseas deployments in the last 4 years. However, this way of doing business is problematic, because it short-circuits

talent matching, leads to suboptimal productivity, increases risks of mission failure, and demonstrates a skewed notion of fairness.

To be very clear—we support efforts to rest people after challenging or hazardous assignments, to reunite families after extended separations, and to provide equitable deployment exposure. We also wholeheartedly support Army efforts to broaden people (or as we say, extend their talent advantage) by providing them with challenging assignments across a variety of environments. It is necessary to do these things.

However, the practice of weighting deployment exposure more heavily than talent matching when making assignments is terribly shortsighted. It presumes that officers are interchangeable widgets and can therefore be treated identically. As we have argued throughout this monograph series, nothing could be further from the truth. Each officer is a unique individual, possessing a talent set that aligns far better with some assignments than with others.

This is why the Army must recalibrate its notions of fairness. While it must afford *equal* opportunities to all, the *fairest* employment behavior it can engage in is to assign officers where their talents help defeat threats at the lowest cost in American lives and taxpayer dollars. This is true fairness—to the taxpayer, to the Soldiers serving with the officers, and to the Army's joint, interagency, intergovernmental, and multi-national partners.

Narrow, Tradition-bound Pathways to Success.

A feudal employment culture can prevent an organization from liberating the talent of its people, particularly in emerging threat or technology areas. During World War I, for example, Brigadier General William "Billy" Mitchell brilliantly commanded all American air combat units in France. At war's end, many expected that General John Pershing would champion Mitchell as the first military director of the Army's Air Service—he was undoubtedly the most talented senior aviation officer in the Army. Instead, Pershing chose Major General Charles Menoher, who had capably commanded the 42nd Infantry Division in France.

Some assume Pershing passed over Mitchell due to his caustic personality.[4] But other factors constrained Pershing's options, chiefly the Army's well entrenched seniority system. Menoher was an artillery officer and an 1886 West Point graduate, while Mitchell was a "mustang" Signal Corps officer who had received a direct commission 20 years later.[5] In short, General Menoher's source of commission, success as a ground combat branch officer, and far greater seniority all fit the narrow and traditional pathways to senior officership that predominated at the time, even though he had no air service experience.[6] As a result, his assignment was a poor talent match, and Menoher was relieved as Air Service director in 1921. He eventually returned to division and later corps command, where he performed honorably and well.[7]

Pershing's "Mitchell or Menoher" dilemma highlights what can happen when seniority, traditional personnel management techniques, and misplaced

notions of fairness supplant talent in the employment process. Such practices can have negative implications at all levels. In this instance, both individual and organizational performance was sub-optimized. The Army's Air Service experienced a tumultuous 2 years, during which its director and deputy were continuously at loggerheads. Over the same period, the Army failed to fully benefit from Menoher's talent as a ground forces commander or Mitchell's as an airpower innovator.

Unfortunately, remnants of this century-old employment culture remain in the Army today, restricting its ability to effectively employ officers. As we highlighted in our previous monograph, nearly 80 percent of the Army's senior leader assignments require talent in more than just the operational art.[8] Despite this, the Army's relatively narrow, tradition-bound paths to enterprise leadership heavily transit operational assignments and draw almost exclusively upon "maneuver, fires and effects" officers (primarily combat arms).

This is appropriate in some instances, of course, but less so in others. As the range of national security challenges becomes increasingly asymmetric and non-kinetic, winnowing talent by shunting it down narrow career paths will deny the Army the talent needed to meet those challenges. Success in warfighting, nation-building, disaster relief, and myriad other contingencies requires an organizational *breadth* of talent that can be sustained only by creating more pathways to enterprise leadership.

An uncertain threat environment also demands a certain *depth* of talent. The Army's existing officer employment practices, however, particularly for its more senior officers, frustrate the development of depth.

As officers achieve greater rank and responsibility, their formal development time is increasingly sparse.[9] To redress this, on the job training and experience – *tenure* - becomes critical. This is standard practice in most successful enterprises. Optimally performing employees remain in position long enough to extend their talents and become true innovators. Army culture generally frowns upon tenure, however, characterizing it as "homesteading." This mindset stifles innovation and hampers the Army's ability to develop deeply talented people.

The Army Cannot See its Talent.

Even if the Army acknowledges that every officer is unique, it will be unable to manage their individual talents until it knows what they are and what talents are needed. Currently, it has little information in this area.

Make no mistake - the Army knows plenty about each officer: their home of record, gender, race, marital status, colleges attended, blood type and religion. It tracks their health and fitness levels, months deployed, awards and decorations. It knows many other things as well – the number and type of training courses completed, positions held, dates of promotion, and security clearance levels. All of this information, and more, is found in each officer's "record brief" (ORB).

Unfortunately, this is simple *accountin*g data. To employ officer talent, however, the Army needs *decision support* data, *information that reveals what makes each officer tick*. What do they value? What opportunities do they desire? What incentives will they respond to? What do they know that the Army has not taught them? Where have they been that the Army has not sent them?

What do they enjoy? How do they see the future? How do they learn? In other words, what are their talents?

Ironically, web applications such as *Plaxo*, *Monster,* or *LinkedIn* often know more about participating officers' talents than the Army does. These networks are flourishing because they incentivize people to volunteer vast amounts of professional information via friendly and intuitive user interfaces. As a result, that information is usually current, relevant, and fully searchable, a key advantage over Army personnel information management systems. "Web 2.0" sites are also lightning fast relative to most Army web applications, another advantage. Additionally, they incorporate *inference technology* – the ability to learn about users through continuous interaction and to provide them with increasingly useful and personalized service.

With these tools, civilian employers have gained a real advantage over the Army in the talent wars. Not only can they see each participating officer's talents, but they can attract them to their organizations via detailed job postings. Today's Army officers can use nimble online search tools to find thousands of private sector jobs demanding their talents. This market transparency is in stark contrast to the Army's highly opaque, top-down employment approach, a likely contributor to talent leakage from the Officer Corps.

The "Principal-Agent" Problem.

In addition to knowing which talents it has on hand, the Army must also understand which talents are *in demand* across its organizations. Commanders know which talents they need and officers know which talents

they can provide. Unfortunately, neither makes assignments - the Army's Human Resources Command (HRC) does, creating a significant *principal-agent problem*. This arises when two parties do not share the same information and also have differing interests.[10]

In this case, commanders (*the principals*), are charged with leading their organizations to successful outcomes. They desire "ace" job candidates – officers who can dramatically exceed minimal performance requirements because there is a high correlation between their talents and work requirements. When making assignments, however, HRC's branch managers (*the agents*) have no real mechanism for determining which specific talents commanders are seeking, or how large a supply of it exists in the Officer Corps.

To make matters worse, HRC's interests often lie outside those of commanders. Talented, dedicated, and extremely hard working, HRC's branch managers and assignment officers administer a system seeking a "fair" distribution of officers, ensuring that each unit shares the same burden of shortages or overages in officer inventory. Under this system, commanders must build their teams with whatever talent HRC assigns to them.

Meanwhile, officers (who are also *principals* in the assignment process) must do their best to perform wherever HRC employs them, whether the job matches their talents or not. Again, we see differing interests. Officers are seeking assignments that liberate and extend their talent and allow them to make an optimal contribution to the Army, while HRC is focused upon a "fair" distribution of overseas assignments and deployment exposure across the Officer Corps. In a recent survey, however, 44% of young officers identified "the job" as their most important consideration when

seeking their next assignment. By comparison, only 6% of them consider deployment schedules important.[11]

Solving principal-agent problems requires aligning incentives and reducing information asymmetries. Essentially, assignment managers need a way of knowing what talents commanders need and what talents are possessed by the officers they manage. Assignment managers must also be incentivized to increase both individual and organizational productivity via information-driven talent matches. Until these issues are resolved, the Army will continue to treat officers as interchangeable parts, suffer low officer retention, endure unnecessarily high developmental costs, and perform sub-optimally. Understanding some fundamental theories, however, can help the Army break free of this industrial era employment paradigm and move toward genuine talent management practices.

THEORY - TALENT MATCHING REQUIRES BOTH DATA AND INCENTIVES

The theory of optimal job matching rests upon three key assumptions. First, there is a heterogeneous distribution of both employee talent and employer requirements. Second, there is imperfect information on both sides of any job transaction – neither the employer nor the employee knows whether a good talent match is at hand. And third, there is an incentive mechanism that encourages talent matching for both the employer and the employee.[12]

In our view, these assumptions hold when considering the possibility of a talent-focused Army officer employment system. First, all officers possess

varied and unique talent distributions, just as all officer requirements are varied and unique. In fact, the uniqueness of both officers and requirements tend to increase with rank.[13] Second, asymmetric information problems abound – officers have little visibility over the preponderance of jobs for which they might be a great talent match, and the Army knows very little about the talent of each officer. And third, it is in the best interest of both the Army and individual officers to match talents against requirements. The organization increases its productivity without increased costs, and the officer experiences enhanced productivity and job satisfaction without compromising his or her career.

We can conceptualize the methods for achieving talent matches as lying along a continuum, from "command directed" to "market driven" in nature. In our daily lives, we are surrounded by evidence that the operation of markets (with appropriate safeguards in place) engender far more efficient and productive outcomes than command directed processes do.

Recent world history reinforces the point. Compare the U.S. and Soviet economies, for example. In 1945, these two global superpowers both possessed significant quantities of heavy industry, natural resources, labor, etc. By 1990, however, the Soviet Union's state-planned economy was barely one third the size of the American economy. In fact, the gap between the two had been growing *wider* for years despite Soviet predictions that their industrial production and per capita income would eclipse that of the United States by 1980.[14]

Like the old Soviet economy, a rigid, centrally managed approach to employing officers is woefully inefficient and unequal to the needs of today's volunteer

force. It requires the Army to know *exactly* what its future talent requirements will be – an impossible task. Nearly as impossible, it tells people what they will do and expects them to perform optimally in *any* assignment they receive. This approach puts a premium on having adaptable (interchangeable) officers.

At the other end of the continuum is a regulated, market-driven employment approach that would create incentives for officers (the labor supply) to volunteer talent information and for commanders (the labor demand) to identify talent requirements. In this way, the Army could wean itself from reliance upon error-prone requirements forecasts. Instead, it could become a truly agile enterprise, better employing people within their unique talent sets. The Army's Officer Corps might then achieve genuine breadth and depth of capability without requiring every officer to master everything (the pentathlete paradigm).

To illustrate the way in which market forces can help organizations meet unforeseen and rapidly emerging talent requirements, consider Figure 2, which compares undergraduate Middle Eastern studies by West Point cadets with graduate-level Middle Eastern studies by Army officers.

Just as at any American university, West Point cadets can choose their programs of study. The solid line shows how quickly they responded to the events of September 11th, 2001. Almost immediately, the number of cadets choosing Middle Eastern studies increased dramatically. An incentive is in play – young men and women embarking on an Army career want to bring relevant talents to their profession. The Army (via West Point) affords these young people with the opportunity to extend their talents. In return, it gains much needed

capability from people with both the talent and desire to provide it. Both parties to this "exchange" benefit rapidly and tremendously.

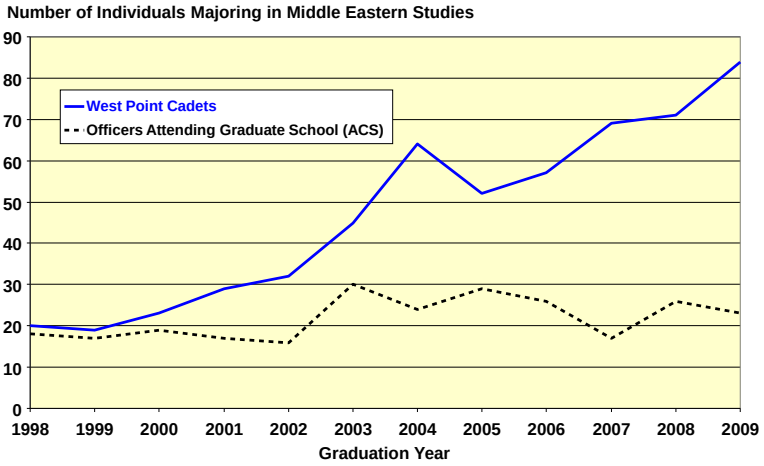


Figure 2. Individuals in a Free Market Respond More Rapidly to Changing Demand than Command Directed Enterprise Can

If every cadet wanted to major in Middle Eastern studies, West Point would have to regulate this market because the Army still requires engineers, economists, historians, and experts in other regional studies. To date, however, there has been no need for intervention in the selection of majors by cadets – the market clears optimally, and program resources move fluidly in response to demand.

In stark contrast to the above, graduate level programs of study for Army officers are centrally controlled and allocated. The dotted line in Figure 2 tells the story. During almost a decade of persistent conflict

in the Middle East, the Army did not increase the number of officers enrolled in graduate-level Middle Eastern studies. Perhaps this was due to internal debate over the wisdom of doing so: "Which program study areas do we curtail if we allow more officers to study the Middle East?" Regardless, the Army did not react, and an opportunity to increase its cultural fluency in a critical area was lost.[15]

Top-down, centrally managed human capital practices may have been sufficient during the relative equilibrium of the Cold War era, with its industrial economies, conscript armies, and clear adversaries. They are unequal, however, to the needs of a volunteer force facing the twin challenges of a competitive labor market and an increasingly complex global operating environment. Moreover, they are unnecessary.

Information age tools make it possible to capture a great deal of information regarding individual talents and unique work requirements, and market mechanisms can help the Army use that information with telling effect. Instead of trying to forecast, for example, how many electrical engineers the Officer Corps needs, the Army will know based upon the actual demand for that talent set.[16]

In addition, as Army talent demands become clear, officers will be better able to develop to meet them. In cases where jobs require particular depth or specialization, the Army may also consider extending tenure to officers, both to increase their on-the-job development and to reap the highest rate of return from extremely productive individuals with rare talents.

Market mechanisms incentivize employees and employers to provide granular data on their respective talents and requirements. This is critical to creating

optimal job matches. The more granular the information, the greater the advantage one potential employee has over another for a particular job. Accuracy is incentivized as well – careless mistakes or deliberate falsification of information can lead to poor job matches that effectively end an officer's career.

This level of detailed information can introduce an entirely new component to officer evaluations. Currently, all officers, regardless of rank, position, branch, location, tenure, span of responsibilities, etc., are evaluated against identical performance measures via the Officer Evaluation Report (OER). But future evaluations will be able to go much further. Using detailed information about an officer's talent and the job's specific requirement, commanders and personnel managers will assess not just performance but *the strength of the talent match.* Was the job a good fit? If not, why not? How was the officer selected for this position? What information was used to make this assignment? What credentials are needed to succeed at this job in the future?

Today, when an officer fails to perform optimally, the Army holds the officer responsible, and the implications for his or her career can be serious. In the future, however, the assessment might sometimes be "We put him in the wrong job. Now let's get it right."

TOWARDS A TALENT MANAGEMENT APPROACH: GREEN PAGES

To test the theories described above, an innovative new web application is currently being piloted on a small scale among Engineer officers. Called simply "Green Pages," it is more than just a talent-matching or

employment tool.[17] Green Pages proceeds from an understanding of how markets work, why they fail, and how they can be regulated to generate desired outcomes. It also draws upon behavioral economic theory – how people behave in a marketplace and which incentives will move them to action.

Currently, there is no market for officer talent in the Army - no way for organizational strength managers and individual officers to make efficient talent transactions.[18] This represents a *market failure* - an inefficient use of resources when better results are possible. In other words, assignment transactions still occur, but there is a significant misalignment of talent supply and demand, making the Officer Corps less productive than it can be. Green Pages can rectify this, providing the Army with its first market-driven officer talent management system, one that can make the Officer Corps far more productive.

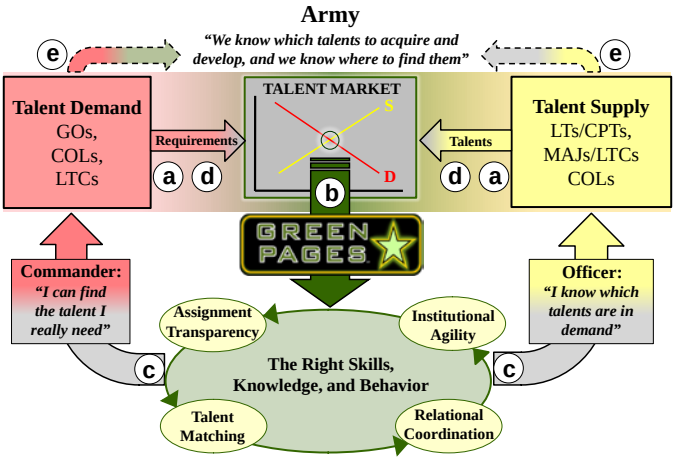


Figure 3. Green Pages Reveals Both the Talents the Army Possesses and the Talents it Demands

Operating Concept.

Figure 3 graphically depicts the Green Pages operating concept, simple in design but potentially quite powerful in implementation. Each person's collective life experiences represent tremendous capital in the Army talent market. When an officer participates actively in Green Pages **(Figure 3, point a)**, he or she will create a detailed profile summarizing all of their expertise, experiences and accomplishments. More than just a listing of Army training and skill identifiers, these include talents gained in college, through leisure pursuits and hobbies, in their communities, in the civilian job market, and even from relationships with friends and family.

The Engineer pilot currently underway provides excellent examples of the new officer information Green Pages is revealing, everything from what officers *can* do to what they *hope* to do.[19] Examples of actual information already entered into the system include:

- A captain who wishes to obtain his Professional Engineering and LEED certifications, and plans on taking the Fundamentals of Engineering Exam (FEE) this summer while pursuing his Masters degree in Environmental Engineering.
- A lieutenant who interned throughout college with an engineering firm building light rail systems in the Southwest. As a civilian, he also owned and ran a "green" business.
- A lieutenant who has extensive prior experience as a project design and construction manager in the Baltimore and Washington, DC metropolitan areas, as well as abroad.

These officers are sharing talents and goals in a professional setting - this information has tremendous assignment utility and is not available to the Army elsewhere. As you can imagine, a flood of other officer data, all searchable, will continue to enter Green Pages, such as professional journal articles written, heritage languages learned in childhood, productive hobbies, publications, contingency experience, etc.

Simultaneously, commanders and strength managers at organizations across the Army will post robust job profiles, detailing not just *required* talents, but *desired* talents. Just as individuals are unique, so are work requirements. Even seemingly identical jobs can differ based upon a variety of factors. These include leadership styles, talent gaps, unit mission, other contingencies, geography, equipment, operating theater, rules of engagement, etc.

The Green Pages Engineer pilot is making this abundantly clear. For example, a captain's position at Camp Zama, Japan previously identified by title, rank and branch only now includes desired civilian educational levels and academic disciplines. It describes the work to be performed and the mission of the organization. It identifies professional certifications that will help an officer excel in the assignment. It provides a point of contact and a website where a job candidate can learn more. Perhaps most importantly, officers can consider their suitability for this job, whereas previously they may not have known it existed.

Once detailed personal profiles and job profiles are entered into Green Pages, they will form the basis for a talent marketplace **(Figure 3, point b)**. As officers and organizations search against one another, the bulk of the talent market will "clear" optimally. In other words, less

intervention will be required by actors outside of the talent transaction. For PCS ("Permanent Change of Station") moves, HRC will still be the assignments arbiter but will hopefully find itself more in the role of advocating for and approving talent matches rather than balancing officer shortages and deployment exposure.[20]

Workforce talent matching will make the Army more productive as officer talents are liberated by assignments that "fit" better than previously possible. This will enhance relational coordination through teamwork and collaboration via information networks and face-to face interaction. It will increase job satisfaction, which has direct implications for retention. It will also provide greater organizational agility as units gain the breadth and depth of talent required to succeed in an increasingly complex operating environment **(Figure 3, point c)**. Green Pages will also allow officers to look beyond their next assignment, to know what talents are in demand, align this information with their personal career preferences, and make the developmental choices that will posture them for the assignments they desire in the future.

The talent market created by Green Pages will be dynamic, both iterative and continuous, as new talents and new requirements are continuously fed into the marketplace **(Figure 3, point d)**. As granular information on the Army's talent supply and demand emerges, the Army can abandon static forecasting. Instead, it will see in real time where its talent surpluses and shortfalls are and can rapidly adjust its accessions, development, retention and employment practices **(Figure 3, point e)**.

Core Capabilities.

Green Pages is a "Web 2.0" application, and functionality is benchmarked from the best commercial professional networking applications. It moves beyond those applications, however, which rely almost exclusively upon user input ("how I see and represent myself") rather than official records ("how others see me"). Green Pages combines both user entry information *and* official file information into a comprehensive and searchable profile.

Green Pages also allows users to: manage the information that is publicly available about them as professionals; search against *every* officer position in the Army inventory; contact organization Strength Managers for more information; be found by Army organizations conducting talent searches; collaborate with fellow experts from across the Army to gather data, share files and solve problems; gain new insights from discussions with like-minded professionals in private group settings; build professional networks that can help them land the jobs they want in the places the Army wants them; and, at the organization level, post and distribute job listings to find and attract the best talent available.

Importantly, Green Pages is a relational database tool, currently fed by several Army data sources. Over time, it can easily draw upon additional data sources to expand its searchable talent information, becoming an increasingly more powerful tool in the process.

Changing Culture and Practice.

While we have described the more immediate benefits of Green Pages, those benefits will likely deepen as the Army's employment paradigm gradually shifts from feudal to collaborative, from exclusively command-directed to increasingly market-driven. Over time, Green Pages can usher in beneficial changes in the Army's work culture and practices.

By giving commanders greater voice in who is assigned to their organizations, for example, a regulated talent market supported by Green Pages can help the Army truly make Soldiers its centerpiece. Consider – today's commanders do not bear the cost of labor because it is "loaned" to them by an outside agent (HRC). They take what they get and make do. As a result, in today's Army culture, commanders are held more accountable for the operational readiness of their pacing items than they are for the long term career viability of their officers.

If a battalion commander averaged a 70% operational rate for his tank fleet, he would leave command with his career in tatters. But if 70% of his junior officers left the Army at the end of their active duty service obligation (ADSO), there would be no career repercussions for him at all. Why should there be? It is entirely possible that these officers arrived to his unit fully intending to leave the service, or perhaps were terrible matches for his organization. If the bulk of these junior officers, however, were assigned to a unit because of their desires and the commander's wishes, the equation (and the Army's culture) would change. A moral contract is created, and the commander is now responsible for developing and employing young people that are

serving with him at his request. He has personally built the team, and his investment in its success on a human as well as operational level rises dramatically.[21] Green Pages may also change work practices by engendering far greater relational coordination – frequent, timely, accurate, problem solving communication, connecting Soldiers around the world and across time zones and operating theaters. Green Pages provides secure (FOUO) communications tools: an internal email client, a professional "Answers" module, and the ability to join "Groups" and build a trusted network of associates.

Imagine serving as an engineer construction officer in Mosul, Iraq where you must drill several wells. You have PDC bits, but due to unanticipated soil conditions you need a steady supply of roller cone bits. Several local contractors sell them but they are of poor quality and wear rapidly. Via Green Pages, however, you are able to quickly locate an officer at Fort Lewis who faced a similar challenge two years ago. He informs you of a great local supplier, one you were unaware of. You make contact, secure high quality roller cone bits and triple your drilling speed, all because a simple web application provided you with a rapidly searchable knowledge network to fall back upon. You also become acquainted with an officer you never would have known - his assistance is just the beginning of years of professional collaboration between the two of you. Networked problem solving brings remarkable organizational agility to the Army.

When natural disasters strike, such as the recent earthquake in Haiti, Green Pages can help the Army assemble the most talented response team possible. A commander can immediately search for people by cultural fluency, law enforcement, engineering, or any

other work requirements. He or she can search not just official records, but officer-provided information revealing relevant talents gained via leisure travel, a religious mission, a Peace Corps stint, a Habitat for Humanity project, advanced civil study, training with industry, civilian employment, etc.

Perhaps more importantly, Green Pages may eventually span branch and component boundaries that can be barriers to talent employment. Imagine that the Army is responding to another Katrina-like hurricane in the Gulf of Mexico. Unlike 2005, this time the Army, via Green Pages, immediately identifies all engineers with levee building and reconstruction experience. The Army promptly dispatches these officers to the New Orleans Corps of Engineers district. However, a talent gap emerges — there are more officers needed than available. Another Green Pages search takes place, this time focused upon specific engineering talents and experience, rather than just Active Component "engineer branch" officers. The search reveals several certified engineers with the required geotechnical experience and credentials, to include one in the Mississippi National Guard (an Infantry officer), another in the Army Reserve who lives in Maryland (an MP officer), and several others. All are mobilized and deployed to the crisis zone.

Potentially, Green Pages can reach all the way back into new accessions to ensure the Army fully leverages the talents of its junior officers and places them upon the most productive and rewarding career paths possible. For example, via Green Pages the Army could make officer branching decisions based upon far more information than is available today (and on both sides of the market – talent and requirements). Just as college

graduates prepare resumes and interview with civilian employers, prospective officers could engage in a similar process with the basic branch they feel best matches their talents.

CONCLUSION

Talent *employment* is at the core of the Army Officer Human Capital Model**.** The Army's current employment paradigm, however, is unequal to the needs of a professional, volunteer Army facing the twin challenges of a competitive labor market and increasingly complex global operating environment. It unduly prioritizes "fairness" when making assignments, has a narrowly defined pathway to senior leadership ranks, cannot see the talent it possesses, and suffers from severe principal-agent problems.

The Army must move beyond industrial era employment practices and adopt information age talent management. Creating better talent matches requires a significant change in its feudal employment culture, however. Sound theories, information age tools and controlled market mechanisms can help the Army match individual officer talents with specific work requirements.

A thoughtfully regulated talent market driven by Green Pages is a win-win proposition. *Commanders* win because they can seek the talent they need, screen job candidates, and interact with both officers and HRC personnel to achieve good matches. *Officers* win because they will better know what talents are in demand. This can positively shape their developmental decisions, future assignment aspirations, and professional networks.

The Army wins as well, and on several levels. First, it can finally "see" the talent it possesses and the talent that is actually in demand. As talent gaps are revealed, it can allocate officer developmental resources far more efficiently and rapidly. Second, the Army's Officer Corps will work in increasingly networked fashion via Green Pages, building technology-enabled, problem solving relationships. And lastly, optimal talent matches will improve talent development, and enhance productivity, reduce risk and ensure the Officer Corps has the depth and breadth of talent it needs, both now and in the future.

VII

EVALUATING OFFICER TALENT

INTRODUCTION

His deepest talents were as a planner and administrator. Word had it around the Army that he was a remarkably efficient and congenial staff officer, a good number two man. "Best clerk I ever had," quipped a former boss.[1] As a result, promotion and command assignments eluded him. Stuck at lieutenant colonel, he contemplated retirement. After all, the Army was making poor use of his talents, and many of his friends had already left the service for high-paying business jobs. He'd given it his best shot. It was time to move on.

Almost overnight, however, his career prospects changed. As war approached, the new Army Chief of Staff sought talented planners and administrators to transform and grow the force. In rapid succession, the lieutenant colonel moved through staff positions of increasing responsibility, advancing from lieutenant colonel to brigadier general in the same year. Sixteen months later, Dwight Eisenhower pinned on his fourth star.

Eisenhower's rapid rise from relative obscurity to command of all Allied forces in Europe during World War II epitomized "the right officer in the right place at the right time." It seemed indicative of sound talent management and, on some level, it was. The late bloom of his career was made possible by Army Chief of Staff George C. Marshall, who held the Army's rigid peacetime seniority system in disdain and viewed it as

an obstacle to true talent management. Unfortunately for Marshall, the generic officer evaluation system of the day did little to inventory individual talents.[2] Instead, Marshall had to rely heavily upon personal observations and face-to-face recommendations. He compiled his own officer talent inventory or "black book," and Eisenhower had caught his attention during the Louisiana maneuvers of 1941.[3] But Ike's meteoric rise also contained more than an element of chance – he became Marshall's protégé in December of 1941 only because Colonel Charles Bundy, the War Plans Division's senior planner for Pacific operations, was killed in a plane crash and had to be replaced immediately.[4]

THE PURPOSE OF EVALUATIONS

Comprehensive and accurate evaluation systems can drastically reduce the element of chance when making officer development and employment decisions, leading to greatly enhanced productivity. This is no easy task, however. At great expense, private enterprises have experimented with evaluation systems spanning all levels and functions of an organization, from annual evaluations, to 360 degree reviews, to board examinations, to peer and self assessments, etc. Why? Because effective evaluations reveal the state of a labor force, *the* critical asset in any enterprise.

A comprehensive evaluation system must do more than evaluate individual talent, however. It must also evaluate the enterprise's talent management efforts. This cannot be done without gathering *detailed* and *accurate* information about both individual employees and specific work requirements. Within an Army officer

context, evaluations determine who will be commissioned or promoted. They certify individual developmental progress, affect Army retention decisions, and drive individual assignments. In short, evaluations undergird all aspects of the Officer Career Model.

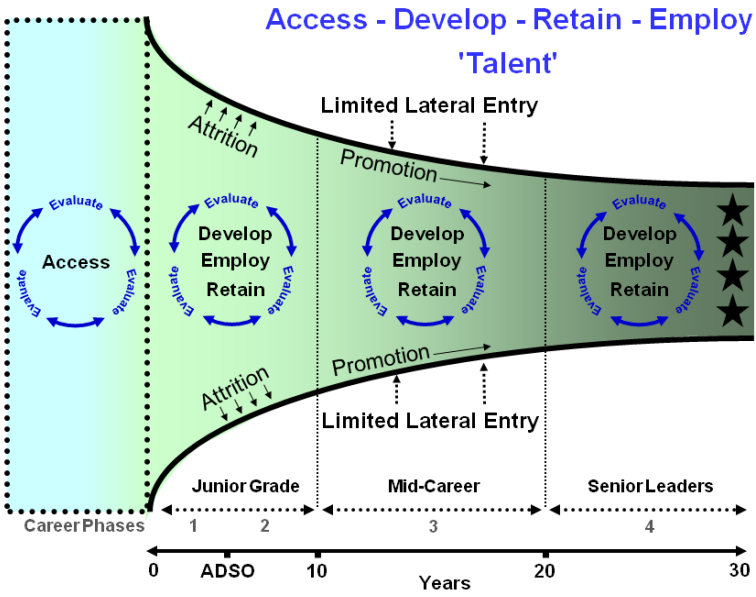


Figure 1. Army Officer Human Capital Model

Given this, the Army must have an officer evaluation system that gets it right. It means abandoning closed personal networks and "one-size-fits-all" evaluation reports and moving instead towards an information rich system, one that captures the unique talents of every officer and the equally unique requirements of every assignment. It demands an understanding of the interdependency between accessing, developing,

retaining, and employing officer talent. Lastly, it requires incentives that promote high fidelity information about its people.

EVIDENCE OF A SUB-OPTIMAL OFFICER EVALUATION SYSTEM

Evidence that the Army's current evaluation system is sub-optimal can be found across the Officer Career Model. In the realm of accessions, for example, almost 20 percent of new Army officers are provided via the OCS-EO (Enlistment Option). This relatively new commissioning source produces officers after only a few months of evaluating them, in stark contrast to the *years* of evaluation entailed by other commissioning sources. In the realm of officer development, the Army now graduates more than 99 percent of all officers through basic, career, intermediate, and advanced leadership courses. When virtually all officers pass the Army's primary development courses, it indicates that those programs have limited evaluative rigor. As a result, the credentials gained via graduation from these Army programs provide no unique or distinguishing information about its officers.

The view from a retention and promotion standpoint is dimmer still. The Army promotes nearly 90 percent of its officers through the rank of lieutenant colonel. Since 2008, it has promoted captains to the rank of major two years "below the zone" (early), sometimes with as few as two evaluation reports providing the basis for that decision. Additionally, company grade officers (lieutenants through captains) receive virtually no performance ranking at all. The combination of high promotion rates and virtually nonexistent ratings for

junior officers has severely undermined the officer evaluation system - the Army essentially has an evaluation system that does not allow it to discriminate between the talent it should employ and the talent it should cull.

Additionally, "black book" talent prospecting remains standard practice among senior Army leaders, demonstrating the evaluation system's failure to fully inventory those talents required for success in demanding assignments. A deep and broad talent inventory is critical to an enterprise of the Army's size and complexity. The current Officer Evaluation Report, however, seeks a *particular* talent distribution in every individual, despite the widely differing distributions of skills, knowledge and behavior required to perform optimally as an infantry platoon leader versus a signal company commander versus an acquisitions colonel. Evaluating all officers against the same generic criteria *hides* talent from the Army and makes it far less effective than it could be. In short, the current Officer Evaluation Report, the Army's centerpiece screening, vetting, and culling tool, is an increasingly toothless instrument, one that fails to recognize the interdependence of accessing, developing, employing, and retaining talent.

Perhaps not surprisingly, Army officers hold the current system in low regard. Over 70 percent of them believe that it is only moderately useful at identifying the highest potential officers, those to promote, those who should receive additional education, or those who should command the Army's formations.[5]

The challenges confronting today's officer evaluation system are not new. Since its inception, it has exhibited two particular flaws – rating inflation and generic information. Inflated performance ratings hamper the

Army's ability to discern the true potential of each individual. Equally detrimental, generic information prevents the Army from fully identifying and employing the productive talents of its officers.

Officer efficiency reports have ranged from the Continental Army's subjective narrative approach to the complex, 24 page annual reports required in the World War I era. In 1936, the first version of the modern Department of the Army Form 67 was introduced. Its intent was to correct the rating inflation and information gaps of the past, provide an appraisal of officer performance in a particular position and timeframe, assess his character, and forecast his potential.[6]

As World War II approached, however, these changes proved ineffectual. Officer efficiency reports had remained generic and inflated, making it impossible to identify the best officers to advance to general as the Army rapidly expanded. Instead, performance during a series of Army field exercises in 1941 (culminating in the famous Louisiana maneuvers) became the centerpiece tool for evaluating general officer potential. Thirty-one of forty-two Army corps and division commanders were relieved or shunted aside in the immediate aftermath of the maneuvers. Many of these men had previously received glowing efficiency reports. An additional twenty of twenty-seven division commanders were replaced in 1942.[7]

Despite multiple revisions since 1936, the Army's evaluation system and its primary evaluation form (currently DA Form 67-9) still fail to capture the talent distribution of its officer corps or the interplay between the components of its human capital model. Perhaps this is because the issue is not one of evaluation *method*, but rather one of evaluation *incentives and priorities*. The

focus of an evaluation system should never be on any specific form or method. Rather, it must establish appropriate priorities and incentives.

THEORY

While not perfectly analogous, the economic theory of *externalities* can yield valuable insight into how a combination of the right *incentives* and *priorities* can mitigate the effects of rating inflation and generic data in the officer evaluation system. Negative externalities are unintended by-products of a production process. They occur when the producer does not have to bear the costs of the externality. Carbon emissions are a classic example of a negative externality, a by-product of industrial production. When the costs of these emissions are not borne by industrial firms, they have little incentive to reduce them. If, however, government regulatory agencies place caps or taxes upon these emissions and provide mechanisms for selling or "trading" credits earned via reduced emissions, behavior changes. There is now an incentive to reduce or eliminate carbon emissions. Likewise, rating inflation and generic officer assessments are unintended by-products of the current officer evaluation system, and they occur for several reasons.

First, raters do not bear the direct costs of inflated ratings and generic assessments. Few raters will cross paths with a rated officer in the future, so the direct costs to the rater are minimal. In fact, raters currently bear direct costs only when providing comprehensive evaluations of poor performance because these ratings jeopardize an officer's promotion potential. Reduced promotion potential would most likely engender poor

performance from the rated officer, with the associated negative production costs falling directly on the commander.

Second, the Army evaluation system relies unduly upon a single mechanism - the Officer Evaluation Report (OER). An effective evaluation system, however, is more than a form. It must instead be a comprehensive instrument, one that guides enterprise talent management. This informs individual development and credentialing, the validation of an officer's evolving capabilities. Those credentials in turn facilitate job matching. Such processes, however, require detailed and accurate information lying far beyond the scope of today's boilerplate evaluation report.

A third contributing factor to rating inflation and generic assessments is the use of centralized promotion boards. These boards tend to make promotion decisions based upon prescribed wording, incentivizing raters to "do no harm" to the promotion prospects of even marginally performing officers. It also leads to a tremendous amount of missing information, as today's promotion boards seek command-centric talent distributions above all others. While command *talent* is clearly critical to the Army, command *positions* account for less than 12 percent of all officer assignments. Because boards focus inordinately upon command talent, however, raters respond accordingly, failing to identify the depth and breadth of talent required to man the remaining 88 percent of officer positions. Compounding the problem, the OER's outsized role in promotion decisions simultaneously undercuts its utility as a development, credentialing or talent-matching tool.

Summing up, the current evaluation system incentivizes raters to write evaluations with the sole purpose of promotion, promotes them via a centralized board, and then assigns officers to jobs commensurate with their new rank. In a talent based evaluation system, however, promotion is a result of development, credentialing, and job matching, not a precursor. Establishing such a system requires a complete reappraisal of today's approach with an eye toward gathering the detailed and accurate information critical to genuine officer talent management.

TOWARDS A TALENT-BASED EVALUATION SYSTEM

To address the challenges described above, any future evaluation system must move promotion to the background and bring development, talent certification, and talent matching to the foreground. Doing so causes genuinely useful incentives to emerge, proceeding from the notion that officers are uniquely talented rather than interchangeable. Raters would then be incentivized to provide accurate and detailed information on every officer. This would foster the further development and certification of each officer's talent. It would also give evaluations a central role in talent matching, engendering future assignments that allow more officers to perform optimally. The key to such information fidelity is decoupling evaluations from promotion risk. This allows raters to honestly and accurately assess officers, secure in the knowledge that their efforts will move officers toward assignments that truly liberate their talents.

When such incentives are in place, rating inflation and generic assessments (externalities) will be eliminated. The Army will truly see the talent possessed by its officers. It will make better employment decisions as a result, improving accessions, retention and developmental efforts while increasing productivity. The evaluation system will still have a role in promotion decisions, of course, but not an outsized one. Instead of time in grade considerations, which have little to do with talent, optimal performance resulting from solid job matching will drive promotions. For example, the young captain who clearly possesses the depth and breadth of talent to be a battalion S3 can compete with all other officers for a battalion S3 position. If selected, he or she would be promoted to the rank of major to provide the authorities commensurate with the duties.

Making promotion decisions in this way enhances the Army's ability to deal with some of its most pressing officer corps challenges, particularly its current mid-ranks shortages. A flexible, talent-driven promotion system would eliminate officer inventory mismatches, as shortages at one grade could be filled by excess officers in another possessing the required talents. As foreign as this approach may sound to some readers, it is in many ways similar to the approach used in the NCO ranks. It is also an approach that was used in the officer ranks from the Army's inception through World War II. But it is only now, with the advent of information age technologies, that the Army can truly inventory the full breadth and depth of its talent supply and demand. The officer evaluation system must leverage these technologies. Only then can the Army enterprise move beyond evaluating all officers against one another and instead toward evaluating their

performance against their duty requirements. Such evaluations yield tremendously valuable information, not just about how officers are performing, but also about how the Army is performing as a talent manager.

CONCLUSION

If the Army truly intends to embrace talent management, it must relook its current officer evaluation efforts. Any future system must entail more than a "one-size-fits-all," command-centric, promotion-oriented annual report. Establishing evaluation conditions and incentives that promote officer development, credentialing, and talent matching are key to the creation of a talent-focused Officer Corps strategy. This approach yields accurate, detailed, and actionable information, mitigating the rating inflation and generic assessments that characterize the current evaluation system.

VOLUME III, APPENDIX A

FORECASTING—THE CHALLENGE OF UNSTABLE STRUCTURES SUCH AS SOURCE OF OMMISSION PROGRAM CHANGES

During the 1990s, the Army disaggregated officer strength forecasts by commissioning programs.[1] These include West Point (USMA), ROTC Distinguished Military Graduate, ROTC Non-Distinguished Military Graduate, OCS Distinguished Military Graduate, and OCS Non-Distinguished Military Graduate. Prior to the mid-1990s, the distinction between Distinguished and Non-Distinguished Military Graduate had been an important commissioning consideration. West Point officers and Distinguished Military Graduates from ROTC and OCS received a Regular Army commission, while officers who were not Distinguished Military Graduates received an "Other than Regular Army" (OTRA) active duty commission. In other words, all West Point officers were considered Distinguished Military Graduates, whereas only a small fixed share of each ROTC and OCS cohort received the same designation.[2]

Within these groupings, the Army linked accession missions with expected loss rates to estimate the future strength of officer cohorts. They used these figures to establish the length of time officers should remain in a given grade, to establish the rate at which they should be promoted, and to estimate accessions required in subsequent cohorts to backfill entry level vacancies. So long as officer retention relationships within these

commissioning program groupings remained constant, accurate forecasting was possible. However, the problem with predictive forecasts is that their accuracy depends upon the stability of key structures and continuation rate relationships which are derived from historical data. In the presence of shocks, these factors can vary widely from historical trends before the lapse of time allows sufficient new data to accumulate and reveal new structures and relationships.

When personnel managers began to take note of falling officer retention in the early 2000s, they did not return to first principles and evaluate the need to act. Rather, they saw this challenge through the structures and relationships available from historical Army manpower data. The Army saw low retentions of West Point officers rather than low retentions among 3- and 4-year scholarship officers from West Point and ROTC.

Unfortunately, the actual stability of officer retention rates within and across officer groups is a retrospective issue that can be judged only in the fullness of time. Since all officers enter the Army with a minimum active duty service obligation (ADSO) of 3 years, and scholarship officers from ROTC and West Point enter with 4- and 5-year ADSOs respectively, the lag in detecting a change from historical retention rates can be 3 to 5 years or longer. Thereafter, compensatory adjustments to officer accession programs can entail an added lag of as short as a few months in the case of OCS to 5 years in the case of West Point and 2 to 5 years in the case of ROTC.

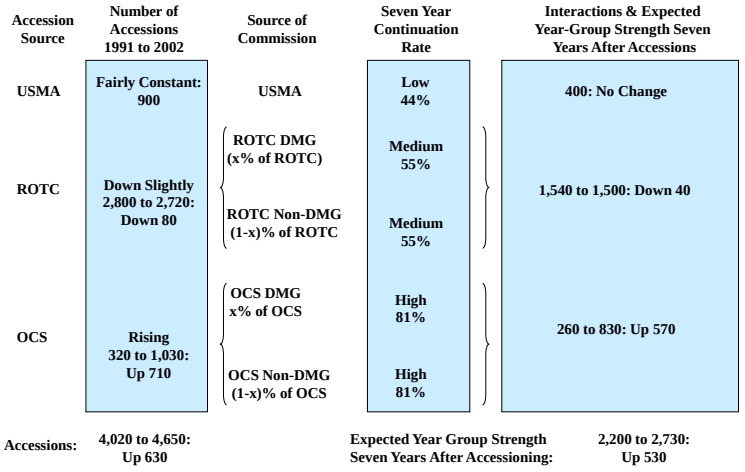
Additional lags in gauging the severity and persistence of changes in retention patterns, and in taking action to redress these changes, can entail further years of delay. We estimate the effective sum of these

lags to be about 7 years. Due to the effects of compounding, small variations in officer retention rates during this lag period can lead to widely disparate outcomes. For example, a persistent 1 percentage point decrease in year-over-year junior officer retention rates for an initial cohort of 6,000 officers can accrue a cumulative decrease of over 1,400 officers available for advancement to major.[3] In commerce, when vagaries of market turbulence present such downside risk, prudent managers purchase insurance. Unfortunately, as it restructured, the Army did not insure against the risk of an anticipated decline in junior officer retention rates. As a result, the Army is currently confronted with a significant officer shortage.

During the 1990s and into the early 2000s, the Army increasingly relied upon commissioning sources which were associated with relatively high officer retention rates through 10 years of service. OCS accessions increased from 9 percent to 40 percent of total commissions during this period. However, over this period the mix of procurement programs within these commissioning sources changed dramatically and in ways that required new frames of reference to detect.

A generic model that uses average retention rates and accessions numbers for each source of commission illustrates how this situation unfolded across Year Group 1991 to 2002 officer cohorts. Figure A.1 contains approximate accession levels and 7-year officer retention rates by source of commission for Year Group 1991 and 2002 officers. Using the product of accession levels from the left column and continuation rates from the middle column one can estimate the number of officers continuing to 7 years of service. As indicated in the right column, the size of continuing cohorts between

1991 and 2002 would have been expected to increase by 530 officers, given the 630 officer increase in accessions over this period.

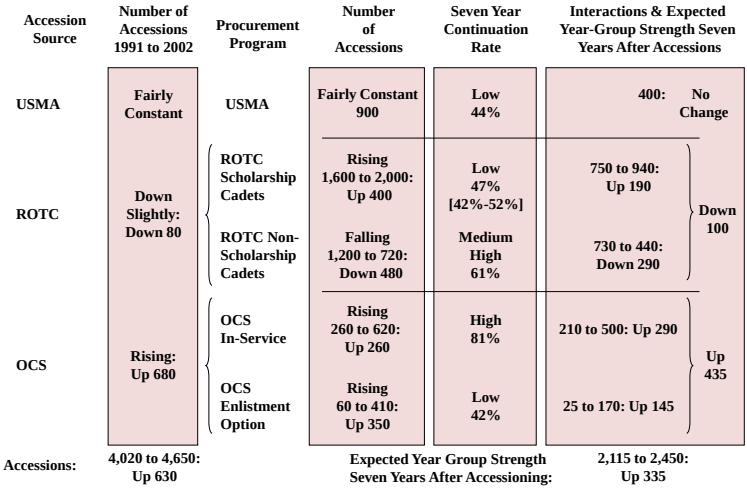


Note: Army Competitive Category and Medical Service Corps officers (ACC+MSC).

Figure A.1. Expected Officer Year Group Strength 7 Years after Accessioning, as Based upon Commissioning Source Retention Behavior

However, as illustrated in Figure A.2, a much different picture emerges when viewed through the lenses of officer procurement programs in lieu of sources of commission. Rather than retaining 2,730 Year Group 2002 officers as indicated in Figure A.1, retained officers declined to 2,450. This reduced estimate is due to the low retention rates and the influence of structural accession program changes that ensued between 1991 and 2002. Specifically, while the number of DMG officers commissioned remained constant, the mix of procurement programs from which these officers

entered the officer corps changed dramatically. For example, within ROTC, the number of scholarship cadets grew by about 25 percent while the group of non-scholarship cadets fell by about 40 percent.



Note: Army Competitive Category and Medical Service Corps officers (ACC+MSC).

Figure A.2. Expected Officer Year Group Strength 7 Years After Accessioning, as Based Upon Procurement Program Retention Behavior

Since officers from ROTC scholarship programs continue at about 70 percent of the rate typical of non-scholarship officers, the new mix of scholarship and non-scholarship cadets yields an estimate of ROTC continuations that is 120 per year lower than arrived at using the source of commission framework. That framework assumed the underlying mix of ROTC scholarship and non-scholarship officers would remain fixed. A similar situation occurs when estimating continuations for OCS source officers. In this case, a

divergence of 160 fewer retained officers ensues between the two methods. This is due to the greatly increased share of Enlistment-Option officers as a share of OCS accessions. As revealed over time, OCS Enlistment-Option officers have departed the Army at much higher rates than OCS-In Service officers. As a result, OCS officers reaching 7 years of service would not increase by 570 officers between Year Group 1991 and 2002 as predicted in Figure A.1. Rather, since OCS Enlistment-Option officers separated at higher-than-expected rates, the increase in expected Year Group strength was only 435 additional officers as illustrated in Figure A.2.

Although accessions increased by about 630 officers per year between 1991 and 2002, the number of officers completing 7 years of active federal commissioned service grew by far fewer officers per year group than the Army expected. Accumulated over 7 year groups of officers comprising the Army's corps of majors, this feature of Army forecasting methods would result in about 1,400 fewer officers than predicted by the time the Army increased its officer structure in 2004. As addressed above, the time lag engendered in detecting and acting upon this situation was also about 7 years. Due to the length of pre-commissioning programs and post- commissioning ADSOs, this lag is an unavoidable aspect of the Army's officer accession pipeline for which an effective strategy must account.

VOLUME III, APPENDIX B

DEFECTIVE MEASURES AND OTHER CONFOUNDING CHALLENGES

One of the reasons the Army has trouble tracking and understanding its captains retention challenge is that its retention metrics are deeply flawed. Within the Army, the most frequently cited officer retention metric is the company grade attrition rate (see Figure B.1).

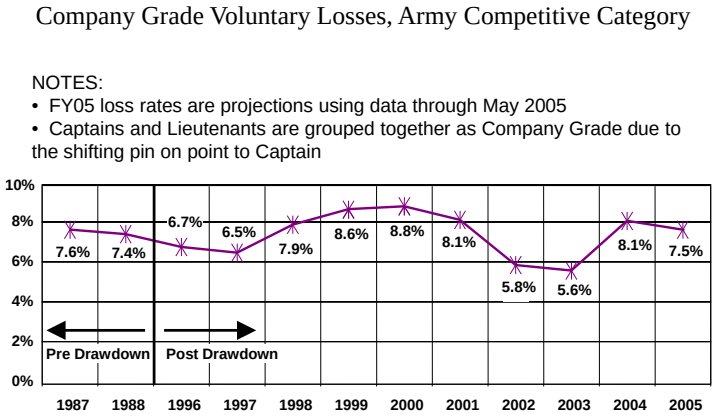


Figure B.1. Standard Company Grade Attrition Rates

This rate is calculated by dividing the number of company grade officers who leave the Army in a given year by the number of company grade officers in the Army that year. The reason this method is problematic is that the denominator (the number of company grade officers in the Army in a year) is not a consistent frame of reference. Rather, as shown in Figure B.2, it fluctuates

with promotion timelines, variations in commissioning sources and seasonality, and changes in accession cohort sizes. While the number of captains who depart the Army could be exactly the same from month to month, changes in any one of these dimensions results in a completely different company grade attrition rate. For example, if the Army decides to promote officers to the rank of major a year earlier than normal (as it did in 2004), the attributes of officers at separation risk will be fundamentally different than in prior years, and thus not directly comparable. Moreover, the population of officers at risk will be smaller relative to the total company grade officer population. This is because the group of officers still under a commissioning service obligation will remain fixed, while the total population of company grade officers will shrink. The rate will remain high in steady state as long as the Army continues early promotions of company grade officers to field grade rank.

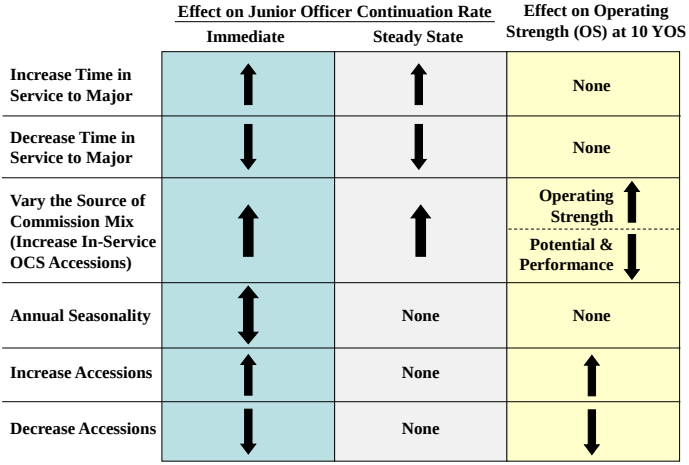


Figure B.2. Factors Affecting Junior Officer Operating Strength & Continuation Rates at 10 Years of Service

Alternatively, an increase in the number of accessions will drive down company grade attrition rates. As shown in Figure B.3, an increase from 100 to 200 officers accessed, all else being equal, results in a .8 percentage point reduction (7.0 percent minus 6.2 percent) in the company grade attrition rate. But when accessions reach a steady state of 200 officers per year, attrition resumes its former rate of 7.0 percent, a rise of .8 percent. While this may seem inconsequential, compounded across a decade the annual shortfall of officers to be advanced to major is considerable.

			Steady-State Accessions at 100 Officers per Year		1st Year Effect of a Permanent Doubling of Accessions		Steady State Accessions at 200 Officers per Year	
	Years of Service	Year-Over-Year Continuation Rate	Starting Population	Ending Population	Starting Population	Ending Population	Starting Population	Ending Population
Obligated Service	0 to 1	100%	100	100	200	200	200	200
	1 to 2	100%	100	100	100	100	200	200
	2 to 3	100%	100	100	100	100	200	200
	3 to 4	100%	100	100	100	100	200	200
	4 to 5	85%	100	85	100	85	200	170
	5 to 6	75%	85	64	85	64	170	128
	6 to 7	85%	64	54	64	54	128	108
	7 to 8	90%	54	49	54	49	108	98
	8 to 9	95%	49	46	49	46	98	93
	9 to 10	95%	46	44	46	44	93	88
	Total Population		798	742	898	842	1596	1484
	Attrition Rate			7.0%		6.2%		7.0%

Figure B.3. Increased Officer Accessions Yield a Transitory Reduction in Company Grade Attrition Rates that Disappears When the Officer "Pipeline" Returns to Steady State

With regard to variations in time in grade, Figure B.4 demonstrates how changing promotion points can also affect company grade attrition rates.

			Steady-State Accessions at 100 Officers per Year		Permanent Two Year Reduction in Time in Service to Major	
	Years of Service	Year-Over-Year Continuation Rate	Starting Population	Ending Population	Starting Population	Ending Population
Obligated Service	0 to 1	100%	100	100	100	100
	1 to 2	100%	100	100	100	100
	2 to 3	100%	100	100	100	100
	3 to 4	100%	100	100	100	100
	4 to 5	82%	100	82	100	82
	5 to 6	70%	82	57	82	57
	6 to 7	75%	57	43	57	43
	7 to 8	90%	43	39	43	39
	8 to 9	95%	39	37	Reduced Time in Service to Major	
	9 to 10	98%	37	36		
	Total Population		758	694	682	621
	Attrition Rate			8.4%		9.0%

Figure B.4. A 2-Year Reduction in Time in Service to Major Yields a Permanent Increase in Company Grade Attrition Rates while Leaving Operating Strength Unchanged

VOLUME III, APPENDIX C

AN ACCOUNT OF THE ARMY'S FAILURE TO UNDERSTAND THE ROOT CAUSES OF ITS OFFICER RETENTION CHALLENGES

In the mid 1990s, Army personnel managers identified West Point graduates as central to the junior officer retention problem. They found that a high number of these officers departed the Army as soon as they fulfilled their active duty service obligation (ADSO). In contrast, their analysis revealed that ROTC and OCS officers stayed in the Army at higher rates. Given the substantial costs to educate and train each West Point graduate, this raised questions about the developmental environment at West Point, the service propensity of cadets entering the Academy, the size of the Corps of Cadets, the academic program, the quality of cadets entering West Point, and the preference afforded to West Point graduates in selecting their branch of service upon graduation.

Troubled by this situation, some West Point alumni identified what they saw to be the crux of the low-retention problem. Having offered long service, and having entered the Army prior to the doubling of the size of the Corps during Vietnam, they recommended halving the Corps of Cadets to increase cohesion and narrow admission to those with a high propensity for a lifetime of service in the Army. Some of these retired officers also felt that the West Point Association of Graduates (AOG) had run amok in helping graduates find civilian careers during the drawdown of the mid

1990s. Still other West Point alumni suggested that the Army created an expectation of short service among cadets during the 1990s by offering officers early separation benefits during the drawdown.

This focus upon West Point led one high ranking officer to suggest that the Army should reduce its investment in an "institution that taught its cadets to get out of the Army." In this same vein, some leadership development experts argued that the problem of low retention was an artifact of toxic leaders and a zero defect culture in the Army. Finally, perhaps more closely approaching the likely nub of the problem, one senior leader jokingly suggested that "expanding the football team" would help retention. His expectation was that by lowering cadet academic quality the Army could moderate officer attrition. That is, cadet quality was perhaps too high for Army needs and it confronted West Point graduates with substantial opportunities outside the Army.

Each of the foregoing "hypotheses" was speculative rather than grounded in hard data, and none offered a satisfactory explanation for what is, in fact, low junior officer retention extending well beyond West Point graduates. To get to the root of the problem, it is necessary to analyze in depth the incentive structures that bring new officers into the Army. Specifically, officer accession programs entail two general categories of incentives. These are a career as an officer for OCS and non-scholarship ROTC graduates, and, for West Point and ROTC scholarship officers, the additional incentive of a fully funded undergraduate education. As shown in the bottom panel of Figure 5, when examining officer retention along these dimensions, a clear pattern emerges.

Non-scholarship ROTC and OCS officers remain in the Army through 8 years of service at relatively high rates. Two-year scholarship officers continue at the next highest rate, followed by 3-year scholarship officers, West Point graduates, and then 4-year scholarship officers. Observed in this light, the locus of low officer retention can properly be seen to lie with the 50-plus percent of officers who enter the Army on the offer of an education and a career. Consequently, low officer retention to 8 years of service afflicts a much larger officer population than just West Point graduates. Those who stay in the longest came to the Army on the promise of a job. Those who came into the Army on the promise of a job and education stay at lower rates.

In view of this, it is clear that West Point's program is not uniquely linked to low officer retention. Rather, low retention rates extend to ROTC scholarship graduates from a wide variety of schools. The same logic applies to notions that USMA as an institution in some way conditions its graduates to leave the Army at high rates. Such conditioning could hardly extend to 3- and 4-year ROTC scholarship officers.

Reference to historical West Point continuation rates also counter notions that West Point graduate retention rates are linked to the size of the Corps. Due to the need to scale class size to gradually increasing new barracks availability and other Academy infrastructure, the doubling of the size of the Corps was an evolutionary process rather than a sudden consummation, a growth rather than a creation. This process extended from 1964 to 1975, embracing the Classes of 1968 through 1975. Ten-year retention rates began to decline *prior* to the start of the transition to a larger Corps, bottoming at 35 percent in 1968. Thereafter, 10-year retention rates

recovered to their pre-Vietnam War averages (in the 60 to 65 percent range) in the period during which the Corps grew to its new higher strength. Ten-year retention rates then stabilized at these high levels until the end of the Cold War and the rise of the information economy, peaking at 67 percent in 1979.

Today's low retention rates are a recent phenomenon, afflicting those classes reaching 10 years of service since the rise of the information age economy in the mid to late 1980s. Moreover, while the West Point AOG may facilitate out-placement of Academy graduates departing active service, perceived AOG mischief in this regard cannot be the basis of the low retention exhibited by ROTC 3- and 4-year scholarship officers. Similarly, Army separation policies during the 1990s drawdown could not have engendered enduring expectations of short service among West Point and ROTC graduates because such expectations do not have appeared to have shaped the behavior of 2-year scholarship and non-scholarship officers.

Absent a broad anti-West Point or anti-intellectual bias, the suggestion that low retentions among West Point graduates is uniquely attributable to toxic leaders is counterintuitive. All else equal, such a situation would require that by some enigmatic process, West Point graduates are disproportionately likely to fall under the tutelage of toxic leaders. Otherwise, one must inquire why such leaders would induce USMA graduates to remain in the Army at half the rate of non-scholarship officers.

Although West Point cadets exhibit very high and homogeneous potential for service, recruited athletes do fall disproportionately into the lower half of the cadet academic order of merit. This reality is the likely genesis

of tongue-in-cheek suggestions that "increasing the size of the football team" would yield higher officer retention. In other words, cadets high in order of merit are presumed to exit the Army at disproportionately high rates after their ADSO expiration.

However, for a variety or reasons, the opposite is, in fact, the case. Based upon College Board scores and cadet order-of- merit standing, those USMA cadets with the highest potential and performance as an undergraduate remain in the Army to their 10th year of service at higher rates than cadets exhibiting lower potential and performance. In particular, they remain at higher rates than recruited athletes. In part, this situation is an outgrowth of physical commissioning standards required. Specifically, after graduation, West Point cadets who participate in intercollegiate athletics exhibit higher than normal separation rates from the Army for disability. Intercollegiate athletes are also less likely to meet USMA graduation requirements. Consequently, leavening the Corps by "expanding the football team" would not only lower average cadet academic quality, it would also lower USMA's graduate yield and reduce average USMA graduate retention in the Army.

We thus return to the one reason for the recent retention challenges. The nub of the problem lies with the fact that high-potential ROTC scholarship officers and USMA graduates have a great deal to offer potential employers, be that employer the Army or a civilian enterprise. In part, the lower retention rates exhibited by 3- and 4-year scholarship program officers can be seen as the outcome of their having entered the Officer Corps via an Army scholarship program. This is due to the eloquent message that such scholarships send to college-

shopping high school graduates as well as to potential employers outside the Army. The Army screens young adults for its scholarship programs based upon their demonstrated intellectual, athletic, and leadership prowess. Because these officer candidates embody exceptional potential for service, the Army offers them exceptional scholarship opportunities. The Army would not make such attractive offers if the level of talent embodied in these candidates could be had at a lower cost.

During their tenure as ROTC and West Point cadets, the Army develops these young adults through systems characterized by extensive vetting and culling within academic, athletic, and military programs that include developmental leadership experiences. By providing young adults such scholarships after extensive screening, the Army in effect brands them as exceptional future leaders when compared to other young adults. This brand can then be expected to figure into their career expectations and aspirations as they approach the crucial decision threshold falling at the end of their mandatory service. By hiring these scholarship officers, future employers outside the Army can gain access to prescreened talent in which the Army has made substantial investments, thereby reducing the risk entailed in hiring a new and untried junior manager. For this reason, during the 1990s and early 2000s, firms ranging from International Paper to Nalco Chemical targeted such officers for recruitment into their junior executive programs.

VOLUME III, APPENDIX D

FORECASTING—THE CHALLENGE OF UNSTABLE RELATIONSHIPS SUCH AS INPUTS VIS-Á-VIS OUTPUTS

Beyond accounting for the impact of structural changes in forecasting models as described in Appendix A, forecasts must also account for changing relationships between inputs and outputs. Some of these relationships or factors are retention rates, promotion rates, time in grade, increases in officer requirements, and changes in institutional training requirements. In the analysis to follow, we shall aim to estimate officer accessions required to staff the Army structure in 2004 and its enlarged structure in 2009. Specifically, using current officer retention rates and rates typical of the "company man" era, we can quantify the linkage between officer retention and officer accessions. In fact, we find that with retention rates typical of the "company man" era and officer accession levels reached prior to the onset of structure growth approved in 2004, the Army could fully staff all 16,381 major billets authorized in its 2009 manning documents. If one elects to build developmental opportunities into Army structure, rather than taking them out of its hide as an overhead cost, as is the current approach, the Army could fill 82 percent of all major assignments including advanced civil schooling and Intermediate Level Education (ILE).[1] However, in a steady state, using current officer retention rates and 2004 accession levels, the Army could fill only 75 percent of its 16,381 major

billets. To fill all of these billets under current retention rates, the Army would need to access 6,400 officers each year.[2] These added accessions would create added costs in ROTC and OCS. Additionally, as seen in Figure 2, they would further congest junior officers' opportunities for developmental assignments as platoon leaders, company executive officers, and company commanders. Whereas junior officer access to such key developmental opportunities plays into their career satisfaction, such congestion could be expected to further undermine officer retention and create added impetus to increase accessions yet again.[3] From this perspective, the linkage between retention, accessions, and officer development is quite apparent.

Beyond the direct cost of increased accessions, low officer retention also raised the Army's personnel overhead costs.[4] Under retention rates from the company man era, about 17 percent of total man-years comprising the Army's structure of lieutenants, captains, and majors would be consumed by officer training and education outside of units. Under current retention rates, and with accessions set to fill all 16,381 major billets, the overhead account would rise to 23 percent of officer man-years between commissioning and 17 years of service (the period during which officers serve as lieutenants, captains, and majors). Of this six point increase, 89 percent would be accounted for in training additional officers needed to ensure that at least 2,700 captains reach 10 years of service and thus become available to fill Army billets for majors (this calculation assumes current promotion rates in the range of 95 percent).

Since officer retention rates akin to those typical of the company man era could eliminate the need for this

expense, this portion of the Army's overhead bill can properly be viewed as a cost rather than an investment, low officer retention being a "gift" that keeps on giving.[5] We can extend this analysis back into intends to provide to its officers institutional training and advanced civil schooling opportunities and is willing to continue to accept an operating strength deviation of 18 percent, required steady-state accessions to fill 16,381 major billets would be about 4,800 officers under company man era retention rates.[6]

Given current low officer retentions however, the Army is now accessing approximately 6,500 officers per year to achieve a similar level of fill. These additional 1,700 accessions entail hundreds of millions of dollars in recruiting, development, and infrastructure costs. Since company grade officer talent leakage remains high, however, that investment is never recouped in the form of higher productivity (mean performance) by the Officer Corps. Raising continuation rates among low retaining officer segments can redress this problem and reduce future leadership risk.[7]

However, rather than focusing upon retention, a recent Congressional Research Service (CRS) study provides key insights into the sort of Army thinking that continues to afflict analysis of the Army's officer shortages.

> During [1991-96] and immediately following [1997-99] the post-Cold War drawdown, the Army under-accessed officers in an effort to meet congressionally mandated strength levels. To sustain a total Army end strength of 482,000, the accession target should have been approximately 4,300 new officers a year, according to Army analysts and accessions modeling.

> Instead the Army accessed between 3,605 and 4,218 during this period.[8]

Derived from what is missing rather than from what is stated, insights from the above statement are in two parts. First, it omits any mention of officer retention, leaving one to view accessions as the key policy lever. We contend, however, that the Army must target retention as a key policy lever in order to reduce accession and development costs as well as to open new pathways for screening, vetting, and culling officer talent. We have demonstrated that had the Army retained junior officers at rates typical of the company man era, it could have staffed its officer ranks in the early 2000s. Over time, given the Army's laissez-faire approach to officer retention and 1990s accession levels, officer retention rates ultimately fell below those required to fill the Army's requirements for majors and senior captains.

Second, figures provided to the CRS by the Army address only accessions for Army Competitive Category officers (ACC). While it is convenient to employ data as it dumps from Army databases, it is more informative to group data according to underlying relationships. Thus, rather than viewing officer retention through the lens of categories in which officers compete for promotion, we should look to incentives, culture, and procurement programs to identify useful groupings. Fewer than 5 percent of ACC officers enter the Army via lateral entry.[9] For ACC branches and other branches characterized by low rates of lateral entry, attention to officer retention becomes paramount because of shortages up the rank structure. Beyond ACC branches, the Army accesses large numbers of officers into

branches in which officers separately compete for promotion. These include chaplains, lawyers, doctors, dentists, nurses, veterinarians, medical specialists, and Medical Service Corps officers (MSC).[10]

Unique amongst these branches, the MSC embodies substantial troop leading responsibilities and very low levels of lateral entry. MSC officers lead medical platoons and command medical companies within combat brigades. These officers can also rise to command larger formations in direct support of combat operations. Moreover, the Army assigns approximately 240 (5 percent) of its new lieutenants each year to the MSC from West Point, ROTC, and OCS. Therefore, we propose that, where officers are substantially involved in troop leading and thus substantive reliance on lateral entry is not acceptable, the Army must assiduously ride herd on officer retention. As officer branches and Army missions evolve, opportunities may arise to increase Army reliance on lateral entry. However, for the present, officer retention must be the subject of continuing focus by the Army in managing the troop leading MSC and ACC branches unless suitable lateral entry candidates can be found in the civil sector at an acceptable cost.[11]

VOLUME III, APPENDIX E

DESIGN AND EXECUTION OF THE OFFICER CAREER SATISFACTION PROGRAM (OCSP)

As opposed to post-commissioning variants subsequently devised by personnel managers, the pre-commissioning Officer Career Satisfaction Program (OCSP) incentives offered to ROTC and West Point cadets in the year prior to their commissioning embody considerable flexibility. Officers selecting this suite of pre-commissioning incentives gain the option to attend a graduate school and program of their choosing, their branch of choice, or their first posting of choice.

While all three incentives have garnered significant participation, the graduate school option is particularly appealing to many cadets as it will allow them to attend school full time between their 6th and 11th years of commissioned service. Many cadets intend to stay on active duty through company command before making the decision to stay or leave. As company command takes most officers out to 8 years of service, it makes this option virtually unfettered to such cadets. During their careers, officers can elect to exercise the graduate school option, they can remain on active duty without attending graduate school, or, at the end of their obligated service, they can leave the Army and allow the graduate school option to lapse. Once they complete their initial service obligation and any additional OCSP obligations, they can begin to "pay-ahead" service obligations associated with graduate school.

Despite its innovative approach to the Army's officer retention problem, the implementation of the OCSP was met with significant initial resistance and centered on the idea of offering incentives to cadets who have not done anything for the Army. Those objecting wanted some way of vetting these officers to make sure that they were of suitable quality for retention. In hindsight, this seems somewhat counterintuitive for an Army that now promotes more than 90 percent of its officers through the rank of lieutenant colonel. Moreover, these incentives were offered to cadets who were the future officers that the Army had been willing to invest the most in. To assuage such concerns, the Army stipulated that officers' graduate school options would become operative only when they advanced to the rank of captain, a threshold that 99 percent of officers meet.

The branch and post incentives also raised concerns. Devoted supporters of the ROTC and West Point Order of Merit (OML) system for allocating branches and posts objected that low OML cadets could "buy" their branch or post of choice ahead of higher OML cadets. Since branch and post assignments represent a zero sum game, the ability of cadets with a lower OML ranking to displace those above them was viewed by some as unfair or as undermining the OML system. However, rather than undermining the legacy system or creating inequities, the branch and post incentives program makes willingness to serve a measure of merit in branching and posting, thus providing *taxpayers* a fair return on their officer accessions investment.

Bureaucracies often struggle with implementing market solutions, and this program was no exception. When advertised as a way to increase retention of officers on active duty, few cadets signed up. In

contrast, when advertised as a way to improve career satisfaction by expanding professional opportunities for cadets prior to commissioning, participation was robust across the three incentives.

With each year, the program required significant tuning. After the first year, cadets requested the opportunity to serve 6 additional years to obtain two of the incentives. To keep aviation officers from taking all of the graduate school slots, the decision was made to make the service of the flight school ADSO and the graduate school option ADSO consecutive. Each change in the program required additional marketing efforts. See Figure E.1 below for a summary of the cadet participation rates across years 2006-09.

Year Group	Branch for Service Cadets	Graduate School for Service Cadets	Post for Service Cadets	Total Participants [Eligible Cadets] (Participation Rate)	Contracted Man-Year Gain	Expected Eight-Year Continuation Rates [w/o Incentives] (with Incentives)
2006	749	271	116	1,133 [3,338] (34%)	3,231	[47%] (60%)
2007	878	487	164	1,529 [3,391] (45%)	4,485	[47%] (66%)
2008	840	564	191	1,450 [3,366] (43%)	4,673	[47%] (66%)
2009	969	560	247	1,583 [3,547] (45%)	5,208	[47%] (69%)
TOTAL	3,436	1,882	718	5,698 [13,642] (42%)	17,596	[47%] (67%)

Figure E1. Officer Career Satisfaction Program Results

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ENDNOTES

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[1] *The 2008 U.S. Army Posture Statement,* Washington, DC: Department of the Army, p. 2.

[2] Requirements and inventory estimates take into account what the Army calls TTHS (trainees, transients, holdees, and separatees). This is necessary to account for actual end-strength requirements. In other words, the Army requires additional billets beyond the operational force to account for officers who are in training, changing station, or separating from the Army.

[3] ROTC is a U.S. Army pre-commissioning program run in collaboration with over 270 American civil institutions of higher learning. These colleges and universities "host" officer training detachments on their campuses and provide undergraduate degrees to those enrolled, many of whom receive full academic scholarships. The United States Military Academy at West Point, NY, is a U.S. federal undergraduate institution devoted exclusively to the preparation of its students for careers as officers in the U.S. Army. All of its students earn an undergraduate degree at government expense. Both ROTC and West Point produce active component U.S. Army officers.

[4] Other than directly commissioning civilians, Officer Candidate School (OCS) is the Army's quickest junior officer production mechanism, a rigorous 12-week course devoted exclusively to military, physical, and leadership training. Unlike ROTC and West Point, OCS has no academic component—its candidates receive their required undergraduate degrees outside the scope of the course.

[5] Previously, "Regular Army" (RA) was a term used by the U.S. Army to differentiate officers by both commissioning source and suitability for continued advancement, with all West Point graduates and ROTC's highest performing cadets designated as "RA" officers. It also served to differentiate between officers who would form the nucleus of a peacetime professional Army and those (such as some ROTC and all OCS graduates) brought in during rapid wartime expansion of the Army via a military draft. In previous post-conflict force reductions, Regular Army officers were retained on active duty while non-RA officers were subject to involuntary force reductions. The Army

gradually abandoned this practice after the Vietnam War in favor of retaining officers based solely upon performance and potential rather than upon source or circumstances of commission. Accordingly, today the "RA" designation applies to all active component officers, regardless of commissioning source.

[6] NCOs are sergeants. Similar to those found increasingly in professional armies, the U.S. Army's NCO Corps consists of seasoned enlisted soldiers with increasing levels of rank, responsibility and authority. While subordinate to commissioned officers and not commissioned themselves, they are invaluable to the leadership of troop formations. Their direct leadership of soldiers and their focus upon building and sustaining individual proficiencies allows commissioned officers to focus upon collective training, as well as the organizational and strategic levels of leadership. Importantly, NCOs are critical not just to the development of soldiers but to the development of junior officers as well, with whom they team in the effective leadership of formations. Any improvements to an army's officer corps gained at the expense of its NCO corps will likely have a deleterious effect upon that army.

[7] In the U.S. Army, Warrant Officer (WO) is a 5-grade group-ing falling between enlisted soldiers and commissioned officers. In some professional armies, warrant officers are effectively senior NCOs with long military experience. In the U.S. Army, however, they are essentially officers with technical expertise in highly specialized disciplines. Increasingly, they are expected to possess the same intellectual and leadership potential as commissioned officers, but in specialties not requiring the academic background for a commission.

[8] College Board, *Trends in College Pricing,* Washington, DC: 2007.

[9] Congressional Research Service, *Army Officer Shortages: Background and Issues for Congress,* July 5, 2006, p. 7.

[10] Tier 1 or 2 institutions are those ranked by external reports (such as Princeton's, *U.S. News*'s, or Peterson's) as among the very best undergraduate programs available. High selectivity schools are those which have extremely stringent entrance standards because they are empowered to do so via a small freshman enrollment relative to their total number of new applicants. For example, for the Amherst College Class of 2012: of 7,745 applicants, admission was offered to 1,144 (15

percent) and 438 (6 percent) were admitted. Of those admitted, 79 percent finished in the top 10 percent of their high school class, 16 percent were valedictorians, and mean SAT scores were: critical reading, 708; math, 707; writing, 706. *Sixty Second Annual Report to Secondary Schools,* Amherst, MA: Amherst College, 2008, p. 3.

[11] Dr. Arthur Coumbe, U.S. Army Cadet Command Historian, telephonic interview by authors, December 5, 2008.

[12] Congressional Research Service, pp. 7-8.

[13] *Military Personnel, Strategic Plan Needed to Address Army's Emerging Officer Accession and Retention Challenges,* GAO-07-224, Washington, DC: Government Accounting Office, January 2007, p. 1.

[14] Lionel Urwick, "The Span of Control," *Harvard Business Review,* May-June 1956.

[15] Remarks by General George Casey, April 19, 2007, to the senior staff and faculty of USMA.

[16] Statistics on the population of college graduates come from "Integrated Public Use Samples," 2006, available from www.ipums.umn.edu. Statistics on the share of Army personnel come from the "Total Army Personnel Data Base" (TAPDB) for data as of September 30, 2006, available from the U.S. Army Resources Command, Alexandria, VA.

[17] The Army defines the "Operating Force" as "forces that the Army maintains for combatant commanders to use in contingencies," whereas the "Generating Force" consists of all institutional or support elements that "organize, train, and equip forces maintained for combatant commanders to use in contingencies." Frank Camm et al., *What the Army Needs to Know to Align its Operational and Institutional Activities,* Santa Monica, CA: Rand Arroyo Center, 2007, pp. 11-16.

[18] Zero sum games are where payoffs to all players equal zero for every configuration of their strategies. A positive sum game in this regard is where all players benefit, the sum of which is greater than zero.

[19] The National Training Center (NTC), located at Fort Irwin, CA, is one of the U.S. Army's premier force-on-force training areas, referred to as "Combat Training Centers."

[20] Statistics on the pre-commissioning incentive programs are from the Office of Economic and Manpower Analysis, West Point, NY.

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[1] Field Manual (FM) 6-22, Army Leadership: Competent, Confident and Agile, Washington, DC: Department of the Army, October 12, 2006.

[2] Gary Becker, Human Capital, Third Ed., Chicago, IL: University of Chicago Press, 1993, pp. 40-41.

[3] Michael Spence, "Signaling in Retrospect and the Informational Structure of Markets," Nobel Prize lecture, December 8, 2001, pp. 410-413, available at: www.nobelprize.org/nobel_prizes/economics/laureates/2001/spence-lecture.pdf. Spence posits that because educational credentials send a positive signal to employers (generally viewed as correlating to higher ability), bad employees will occasionally seek and gain educational credentials. While the credential itself may do little or nothing to increase an employee's productivity, the opportunity costs of obtaining the credential are significantly lower for good employees, and therefore education retains its usefulness as a positive signal of employee potential— more good employees will have it.

[4] For a comprehensive overview of Gardner's work, see his "Multiple Intelligences after Twenty Years," a paper presented at the American Educational Research Association, Chicago, IL, April 21, 2003. See also Thomas Armstrong, *7 Kinds of Smart: Identifying and Developing Your Multiple Intelligences*, New York: Penguin Group, 1999.

[5] Armstrong, p. 8.

[6] In *Winning the Talent Wars*, New York, W. W. Norton & Co., 2001, p. 37, Bruce Tulgan argues that a wealth of these conceptual or intuitive powers creates "the brain's killer app[lication] — judgment." He refers to judgment as "the new gold standard for talent," because there is no technology other than the human brain which can exercise it.

[7] *Ibid*., p. 12.

[8] "Vet Saves Farmer's Life After Collapse," available at: *www.thenorthernecho.co.uk/news/3689578.Vet_saves_farmer___s_life_after_collapse/*, July 23, 2009.

[9] Edward L. Gubman, *The Talent Solution*, New York: McGraw-Hill, 1998, p. 63.

[10] Jody Hoffer Gittell, *The Southwest Airlines Way*, New York: McGraw-Hill, 2003, p. 5.

[11] Jody Hoffer Gittell, "Relational Coordination: Guidelines for Theory, Measurement and Analysis," June 22, 2009, p.3, available from *www.jodyhoffergittell.info/content/download/Relational_Coordination.doc*, July 27, 2009.

[12] Gittell, *The Southwest Airlines Way*, p. 99.

[13] A production possibility frontier depicts the feasible outputs given inputs, thus showing the trade-off between varying outputs given resource constraints. Expanding the frontier occurs when inputs are made more efficient, or when there is an increase in overall inputs.

[14] As described by Becker, there is another dimension that can virtually "zero out" the talent advantage of an employee - poor health or physical fitness. The Army's health care system is beyond the scope of this paper.

[15] Peter Cappelli, *Talent on Demand*. Boston, Harvard Business Press, 2008, p.5.

[16] *Ibid.*

[17] For a detailed statistical analysis of these problems, see the previous monograph by Casey Wardynski, David S. Lyle, and Michael J. Colarusso, *Toward a U.S. Army Officer Corps Strategy for Success,* Carlisle, PA: Strategic Studies Institute, U.S. Army War College, April 2009, at: w*ww.strategicstudiesinstitute.army.mil/pubs/download.cfm?q=912*.

[18] "Competitive Category" officers in the U.S. Army are those comprising the majority of the Officer Corps in specialties organized around conducting or supporting direct combat operations. These include branches such as Infantry, Armor, Field Artillery, Engineers, Aviation, Military Police, Military Intelligence, and many others whose core competencies are gained via a high proportion of military education and training. Such training and education is normally not available outside of the Armed Forces. Officers in this category all enter the Army as Second Lieutenants and have reasonably consistent career

trajectories across their branches. Non-Competitive Category officers, a relatively small proportion of the Officer Corps, are in highly specialized or technical fields that do permit lateral entry into the Army and whose professional competencies are often obtained outside of the Armed Forces. These include doctors, lawyers and chaplains. Their promotion criteria and timing differs significantly from that of "Competitive Category" officers, hence the reference to them as "Non-Competitive Category" officers.

[19] Wardynski, Lyle, and Colarusso, *Toward a U.S. Army Officer Corps Strategy for Success*, pp.7-10.

[20] *Ibid*.

[21] Tulgan, pp. 23-25.

[22] For a thoughtful discussion of generational differences, see Neil Howe and William Strauss, *The Lifecourse Method*, available from *www.lifecourse.com/mi/method.html*. For an examination of generational differences specific to the Army's Officer Corps, see Leonard Wong's *Generations Apart: Xers and Boomers in the Officer Corps*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2000, available from-- *www.strategicstudiesinstitute.army.mil/pubs/download.cfm?q=281*.

Volume III

[1] Figures are from the National Bureau of Economic Research as reported in the *Wall Street Journal*, July 28, 2009, available from *finance.yahoo.com/career-work/article/107419/the-great-recession-a-downturn-sized-up.html?mod=career-salary_negotiation*.

[2] In a few cases such as the legal and medical fields, the Army makes exceptions to its limited lateral entry policy. As officer branches and Army missions evolve, the Army may be able to expand its reliance on lateral entry. However, for branches that focus on leading Soldiers, lateral entry runs counter to important Army culture.

[3] We calculate the number of excess lieutenants accessed by a year group in Figure 3 as follows. First we calculate the total number of lieutenant requirements from the PMAD for each of the 3 years that a cohort serves at the rank of lieutenant and divide that number by 3. This gives us the number of lieutenant requirements that a year group faces each year they serve as a lieutenant. Next, we subtract the total number

of lieutenant requirements for a year group for each of the 3 years from the actual number accessed. This gives us three values for the excess accessions. We average those three values to get the average number of excess lieutenants accessed for a year group across the 3 years a year group serves as a lieutenant. We use Officer Evaluation Report (OER) data to estimate average platoon leader time. We validate this OER trend analysis by checking it against TAPDB data. There is a similar trend, but the TAPDB shows a slightly higher level by about a month or two. We rely upon OER data because there are many inconsistencies with duty titles in the TAPDB.

[4] Shifts in experience levels of officers are a result of multiple policy changes. Some causes of decreases in average captain experience include early promotion of lieutenants to captain, early promotion of captains to majors, increases in accession cohort size for officers who reach the rank of captain, shifts in accession mix towards sources that continue at low rates, and declining officer retention.

[5] For a thorough discussion of this system, see William H. Whyte's classic exploration of the American corporate ethos, *The Organization Man*, New York: Doubleday, 1956. For a contemporary discussion of the same subject matter, see Peter Cappelli's *Talent on Demand*, Boston, MA: Harvard Business Press, 2008.

[6] The analysis by procurement program successfully reframed the retention discussion among senior leaders, but the terrorist attacks on September 11, 2001 (9/11) drew their attention elsewhere and forestalled substantive efforts to raise officer retention until 2004. By then, the captain retention crisis was fully entrenched. Among Year Group 1995 to 2001 officers, it was hollowing out the ranks of junior officers and leaving inadequate numbers of seasoned captains available for advancement to major. See Appendices A and B for a further discussion of officer retention forecasting and analysis challenges.

[7] Beginning in 2004, the Army increased structural requirements for majors by 2,802 billets. This growth in field grade structure exacerbated officer shortages accumulated during a decade or more of low captain retention. By adding thousands of new field grade officer requirements to its structure, the Army brought its shortage of seasoned officers into such stark relief that in some quarters, growth rather than retention became the dominant construct for addressing officer shortages. Adherents to this view argue that to accommodate officer structure

growth, the Army naturally turned to OCS accessions as it had when growth was required during earlier conflicts. However, such comparisons are misleading. Unlike prior conflicts, the Army now incorporated *all* OCS growth into the Army's corps of regular, tenured officers. Given current promotion rates, these OCS officers can be expected to serve at will until retirement. In prior conflicts OCS growth came in the form of reserve officer commissions. As such, following hostilities, the majority of these officers were typically released from officer ranks during postwar demobilization and downsizing. Finally, while prior events can cause subsequent reactions, the reverse cannot be true. Specifically, increases in officer accessions, promotion rates, shifts in the accession mix, and reduced time to promotion preceded officer structure growth. Therefore, the latter cannot have been the cause of the former.

[8] See Appendix C for an extensive root-cause analysis of the retention challenge.

[9] See Appendix D for the methods and calculations that support a 20 percent reduction in accessions.

[10] See F. E. Kydland and E. C. Prescott, "Rules Rather than Discretion: The Inconsistency of Optimal Plans," *The Journal of Political Economy,* Vol. 85, No. 3, 1977, pp. 473-492.

[11] At the beginning of the war, rapid expansion of the Army required promotion of large numbers of officers to senior grades. When the Army reviewed existing officer efficiency ratings (its Form 67 report, which lacked a forced distribution component), it discovered that "of 4,000 ground officers of suitable general officer age, [over] 2,000 were [rated] superior and best. As such a showing was perfectly worthless for the purpose [of screening and vetting], the selecting authorities reluctantly fell back on personal knowledge, which is exactly what the Army thought it was getting away from when . . . it inaugurated the [Form 67]. . . ." It seems that raters typically used only superlatives in describing their men or damned them with "faint praise." See E. Donald Sisson, "Forced Choice: The New Army Ratings," *Personnel Psychology*, Vol. 1, No. 3, Autumn 1948, pp. 365-382.

[12] By comparison, in 2008 the average tenure of CEOs in North American firms was almost 8 years. Booz & Co. , available from *www.booz.com/global/home/press/article/45711808*.

[13] Wikipedia, available from *en.wikipedia.org/wiki/Information_asymmetry*. Examples of asymmetries include moral hazard, adverse selection, and principal-agent problems. In all cases an individual has better information than the organization, which leads to changes in behavior, poor screening and signaling, and misaligned incentives for optimal performance.

[14] U.S. Army Office of Economic and Manpower Analysis (OEMA) analysis of data contained in the Total Army Personnel Database (TAPBD).

[15] This net present value calculation assumes a 4 percent discount rate, 3 percent inflation rate, is valued at 10 years of service, and assumes a life expectancy of 75 years of age.

[16] The cash size of the incentive sorted by Army basic branches, with more money being offered to some "shortage branch" officers than others. With the right bonus levels, it is possible to induce the required number of officers to extend their service with such just-in-time retention tools. However, bonus and incentive pay strategies entail substantial inefficiencies and adverse second and third order effects. Note: Graduate school and professional military schools were also offered as part of the program but had low acceptance rates.

[17] Army G1 analysis of CSRB program indicates that "there is insufficient evidence to prove we have changed retention behavior." At best, the CSRB program placed a floor under historical retention rates.

[18] U.S. Army Research Institute (ARI) analysis dated March 25, 2008.

[19] Offering the CSRB to officers up to 8 years of commissioned service (YG 1999) only deepened the Army's asymmetric disadvantage. By this point in their careers, officers have served as platoon leaders, company commanders, and staff officers. Data shows that officers with 8 years of service have above a 80 percent probability of continuing their careers to at least the 20-year mark. Therefore, of the money paid to YG 1999, at best 20 percent of it would go to retaining officers. In contrast, YG 2005 had only 3 years of service. As a result, they had much greater uncertainty regarding their Army and private sector career options. For these younger officers, committing them to 3 more years of service may have had some benefit.

[20] "Economic rent" is a distribution in excess of the amount required to sustain a production process.

[21] In an ideal world, one might hope to distribute incentives only to desirable officers who exhibit intentions to leave the Army. However, once officers have explored the external labor market, the cost of "buying them back" rises dramatically—in other words, it is too late for an efficient incentive. Additionally, officers exhibiting intentions of leaving may stop making the types of investments in their career necessary to maintain their competitiveness for key assignments or advancement. Lastly, offering incentives to those who exhibit intentions of leaving the Army can create perverse incentives for "gaming" the system. In other words, officers might explore outside opportunities, or create the appearance of doing so, to trigger more Army retention incentives.

[22] Since the Army's 3- and 4-year scholarship programs also comprise about 40 percent of officer accessions, they afford the Army its greatest scope to both raise officer retention and deepen its bench of officer talent.

[23] Analysis indicates that not receiving a branch or post of choice has little impact upon post-commissioning retention behavior. Source: OEMA.

[24] For example, 65 percent of competitive category USMA source officers, Year Groups 1980 to 1993, not attending ACS, obtained a graduate degree on their own time.

[25] OEMA survey of USMA faculty, September 15, 2004.

[26] Of course, use of an educational incentive engenders both budgetary and overhead (TTHS) costs. In steady state—the estimated cost of this program is $90 million. However, as opposed to other strategies, where payments would be made concurrent with extended officer service, the educational incentive calls for payments to begin, on average, 8 years into the future.

[27] At year 8, participants in such a career education option could allow their option to expire and depart the Army, or they could exercise their educational option by remaining on active duty.

[28] Regardless of stated intentions prior to commissioning, cadets are unable to predict their eventual service length. Some 23 percent of cadets plan to serve beyond ADSO, yet half of those leave. Some 34 percent of cadets plan to leave at the completion of their ADSO, yet half of those end up staying. Of the remaining 43 percent who are unsure, half of them end up leaving.

[29] See Appendix E for discussion of Officer Career Satisfaction Program implementation challenges. Participation rates in the OCSP prior to the Webb GI Bill were high as shown in Appendix E.

Volume IV

[1] Janet C. Lowe, *Warren Buffet Speaks: Wit and Wisdom from the World's Greatest Investor*, New York, NY: John Wiley and Sons, Inc., 1997, p. 87.

[2] See David McCullough, *The Great Bridge: The Epic Story of the Brooklyn Bridge,* New York, NY: Simon and Schuster, 1972.

[3] For a detailed discussion of the Officer Career Satisfaction Program, see Casey Wardynski, David S. Lyle, and Michael J. Colarusso, *Towards a U.S. Army Officer Corps Strategy for Success: Retaining Talent,* Carlisle, PA: Strategic Studies Institute, U.S. Army War College, January 2010, available from: *www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubid=965*.

[4] Source: Index of Child Well-Being Project, Durham, NC: Duke University, Foundation for Child Development, 2004.

[5] West Point develops cadets across six domains: academic, military, physical, social, ethical, and spiritual.

[6] The methodology and data used to calculate the average cost to commission can be found in Majors Jette and Yankovich, "Assessing the Quantitative and Qualitative Costs of Increasing U.S. Army Officer Accessions," analysis undertaken for the Headquarters Department of the Army, June 2007. Jette and Yankovich examined reports from 2004-05 (which reflect 2003 data) from the U.S. Army Training and Doctrine Command (TRADOC) and U.S. Army Recruiting Command (USAREC) (for OCS), the Cost of Graduate Report (for USMA) and a report provided by Cadet Command as required by the Department of Defense (DoD) Financial Management Regulation, Volume2A, Chapter

3. The USMA average cost is based on all costs attributable to education and training of Cadets (Operations and Maintenance, Army [OMA] and Manpower and Personnel, Army [MPA]) as well as the Cadet's pay and stipend. The total cost does not account for maintenance of the post itself. ROTC average cost is based on OMA and military pay accounts (active and reserve) as well as OMA designated funds for scholarships. Costs incurred through state funded simultaneous membership program (SMP) and the Guaranteed Reserve Forces Duty (GRFD) program are not included in the total ROTC cost methodology. Initial calculations net out scholarship dollars to determine the average cost to a non-scholarship Cadet. Then, using published National Center for Education Statistics (NCES) tuition and room and board rates, scholarship costs are added by weighting the cohort according to ROTC scholarship enrollment levels (across most, very, moderate, minimally competitive and open-enrollment schools) for the year. Weighted scholarship costs are then added to the cost to commission a non-scholarship Cadet to determine average costs across the scholarship/non-scholarship population. OCS-IS costs are determined by both the costs to create an officer through the OCS system and the costs to screen that future officer (i.e., create a private E1 and develop a noncommissioned officer [NCO] up through OCS acceptance). These costs coincide with the replacement of that lost NCO to the Non-commissioned Officer Corps. In addition to the cost of OCS schooling and loan repayment/degree completion, these costs include recruiting, accession and Military Entrance Processing Station (MEPS) operations, initial issue, Basic/Advanced Individual/One Station Unit Training costs, Permanent Change of Station (PCS) to first unit and the average enlistment bonus weighted across military occupational specialties. Based on historical continuation rates, the authors apply a factor of 1.5 to the cost to recruit, train, issue and access the Soldier based on historical attrition rates. OCSEO costs are the sum of OCS course costs, degree completion and loan repayment, as well as recruiting and accession costs, a reduced initial issue, basic training and the first PCS move. Based on historical attrition rates the authors apply a factor of 1.1 to the cost of recruiting, accessing, training and changing the Soldier's station of assignment.

[7] Arthur T. Coumbe and Paul Kotakis, History of U.S. Army Cadet Command: The Second Ten Years, 1996-2006, Washington, DC: U.S. Government Printing Office, 2008, p. 42.

[8] *Ibid.,* p. 85.

[9] Determining whether the Army over-accessed officers requires the passage of time. Accession targets are determined by models that account for historical retention and projected end-strength. Figure 7 provides evidence that the Army has been over accessing since Year Group 2000, as there are more officers than requirements, even after accounting for trainees, transients, holdees, and students (TTHS).

[10] "Generation Y: The Millennials: Ready or Not, Here They Come," Information Paper, Cleveland, OH: NAS Recruitment Communications, 2006.

[11] For a more complete discussion of generational differences, see Neil Howe and William Strauss, *The Lifecourse Method*, available from *www.lifecourse.com/mi/method.html*. For an examination of generational differences specific to the Army's Officer Corps, see Leonard Wong, *Generations Apart: Xers and Boomers in the Officer Corps*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2000, available from *www.strategicstudiesinstitute.army.mil/pubs/download.cfm?q=281*.

[12] "Army Segmentation and Target," Unpublished briefing prepared for the U.S. Army, Nashville, TN: TargetScope™ Segmentation, February 16, 2001.

[13] Nobel Laureate Herbert Simon is credited with first explaining how people irrationally tend to be satisfied instead of maximizing utility. In 2002, Daniel Kahneman was awarded the Nobel Prize for integrating insights from psychological research into economic science with regards to human judgment and decision-making under uncertainty.

[14] Amos Tversky and Daniel Kahneman, "Judgment under Uncertainty: Heuristics and Biases," *Science*, Vol. 185, No. 4157, September 27, 1974, pp. 1127-1128.

[15] Eliezer Yudkowsky, "Cognitive Biases Potentially Affecting Judgment of Global Risks," in Nick Bostrom and Milan Cirkovic, eds., *Global Catastrophic Risks*, forthcoming, pp. 8-9.

[16] *Ibid.,* p. 12.

[17] HBS was ranked the best business school in 2009 by *U.S. News and World Report*.

[18] Tracking surplus applicants to both West Point and ROTC may also be a viable source of talent for OCS-EO. A small pilot program attempted to contact individuals who had once applied to ROTC and West Point but never attended either. By timing their eventual graduation from college with a communication effort, the Army may be able to attract some of these individuals into the ranks of OCS-EO since they once demonstrated some interest in the military.

[19] The methodology and data used to calculate the marginal cost to commission can be found in Jette and Yankovich. They examined reports from 2004-2005 (which reflect 2003 data) from TRADOC and USAREC (for OCS), the Cost of Graduate Report (for USMA) and a report provided by Cadet Command as required by the DoD Financial Management Regulation, Volume 2A, Chapter 3. Marginal cost is the cost of producing each additional Cadet. Depending on the scale of the Cadet mission increase, marginal cost calculations might, on the one hand, not require additional barracks space or instructors, and on the other may be large enough to require new infrastructure (buildings/ barracks) and instructors. We use the authors' estimates for a small increase in additional accessions of less than 100 Cadets. To produce 100 additional Cadets through OCS IS/EO, factors of 1.5 and 1.1 respectively are used to account for attrition (see average calculations above). Based on historical rates, it would take 125 West Point Cadets to yield 100 officer graduates, and it would take 143 ROTC Cadets to yield 100 officer graduates. The latter two have an initial lag of 4 years to reach steady state when increasing mission numbers. The marginal cost to commission additional USMA graduates includes the increase in the Cadet pay and stipend determined by the Military Pay and Allowances (MPA)-Cadet account as well as the cost of attrition throughout the 4-year experience. Marginal cost to access a West Point officer also includes some O&M monies for a portion of barracks utilities, maintenance and training. The marginal cost to commission a non-scholarship ROTC Cadet is the cost of the Cadet stipend, attrition, and minimal training costs (O&M) such as transportation to Leadership Development and Assessment Costs (LDAC) (advanced camp Ft. Lewis) and local training. The ROTC scholarship Cadet's marginal costs are weighted across the school types by adding the cost of tuition and room and board using NCES data. ROTC scholarship Cadets have the largest ratio of variable to fixed costs and the Army assumes the greatest inflation risk with these Cadets due to its exposure to tuition and fee increases.

The marginal cost to commission an OCS-EO officer assumes that the marginal cost to recruit is $0. Therefore, the costs incurred for the additional mission includes accession costs, attrition, initial issue, enlistment bonus, tuition reimbursement/loan repayment, and O&M training dollars for the additional basic trainee and OCS candidate. In addition to these costs (less basic training), commissioning additional officers through OCS-IS requires that the Army bear the cost to replace the vacated NCO slot. Marginal cost calculations for OCS-IS include that "replacement cost."

Volume V

[1] *Advertising Age* ranked it as the second most successful slogan/jingle of the last century, eclipsed only by McDonalds' "You deserve a break today." Available from *adage.com/century/jingles.html*.

[2] See Vol. 2 in this monograph series, Casey Wardynski, David Lyle, and Michael Colarusso, *Talent: Implications for a U.S. Army Officer Corps Strategy*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, November 2009, p. 5.

[3] The unique nature of each person's talent set requires a paradigm that extends well beyond the Army's use of skill identifiers and career fields. Developmental efforts must support a situation where there are as many unique career paths as there are evolving skill requirements.

[4] General Martin Dempsey, Commanding General, TRADOC, "Erosion of TRADOC's Core Competencies and Functions," Memorandum for General George Casey, Chief of Staff of the Army, February 16, 2010, as reported by Nancy A Youssef for McClatchy Newspapers, March 3, 2010, available from *www.mcclatchydc.com/2010/03/03/89799/general-sounds-alarm-on-usarmy.html*.

[5] For data supporting this conclusion, see Vol. 3 in this monograph series, Casey Wardynski, David Lyle, and Michael Colarusso, *Toward a U.S. Army Officer Corps Strategy for Success: Retaining Talent*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, January 2010, p. 6.

[6] To illustrate this point, we use an infantry officer's progression through key and developmental positions.

[7] Source: *2010 U.S. Army War College Course Catalog*, available from *www.carlisle.army.mil/USAWC/Registar/pdf/catalogue.pdf*.

[8] Failing to provide developmental opportunities for these non-operational requirements that dominate senior leader assignments puts an additional premium on accessing the right talent who may have a proclivity for quick learning in these areas.

[9] Targeted executive-level education is one way to rectify this, as is matching executive credentials against enterprise talent requirements. Large, complex enterprises are devoting increasing time and resources to the specialized development of senior leaders. Examples include GE's Welch Leadership Center or the Wharton School's Center for Leadership and Change Management.

[10] See Gary Becker, *Human Capital*, Third Ed., Chicago, IL: University of Chicago Press, 1993.

[11] For a comprehensive overview of Gardner's work, see his "Multiple Intelligences after Twenty Years," a paper presented at the American Educational Research Association, Chicago, IL, April 21, 2003.

[12] Howard Gardner, *Frames of Mind: The Theory of Multiple Intelligences*, 20th Anniversary Ed., New York: Basic Books, 2004.

[13] Theodore W. Schultz, "Investments in Human Capital," *American Economic Review*, Vol. 51, No. 1 (Mar., 1961), pp. 1-17.

[14] Theodore W. Schultz, "The Value of the Ability to Deal with Disequilibria," *Journal of Economic Literature*, Vol. 13, No. 3, September 1975, pp. 827-846.

[15] Isaac N. Arnold, *The Life of Abraham Lincoln,* 4th Ed., New York: Bison Books, 1994, p. 300.

[16] Samuel Bowles, Herbert Gintis, Melissa Osborne, "The Determinants of Earnings: A Behavioral Approach," *Journal of Economic Literature*, Vol. 39, No. 4, December 2001, p. 1140.

[17] Michael Spence, "Job Market Signaling," *The Quarterly Journal of Economics,* Vol. 87, No. 3, August 1973, pp. 355-374.

[18] Fewer than 1 in 10 officers commissioned in the 1990s through 2005 can expect to receive a fully-funded graduate school program from the Army. Officer cohorts in this era ranged from 4,000-6,000 per year, and each cohort had roughly 400 fully funded graduate school billets available.

[19] For an interesting discussion of this anti-intellectualism, see Major General (Ret.) Robert H. Scales, "Too Busy to Learn," *U.S. Naval Institute Proceedings*, February 2010, available from *www.usni.org/magazines/proceedings/story.asp?STORY_ID=2195*.

[20] Telephone interview with Dr. Arthur Coumbe, Command Historian, U.S. Army Cadet Command, February 17, 2010.

[21] Woodrow Wilson International Center for Scholars, available from *www.wilsoncenter.org/coldwarfiles/index.cfm?fuseaction=people.details&thisunit=3&peopleid=99*.

[22] For a useful discussion of how and why people sort themselves into different groups, see Robert H. Frank, *Choosing the Right Pond: Human Behavior and the Quest for Status*. New York, Oxford University Press, 1985, pp. 8-12.

[23] Wikipedia, *www.wikipedia.org/wiki/W._L._ Gore_and_Associates*.

[24] Spence, p. 360.

[25] In many ways, what occurs in education is akin to what most experience when spending time in a different country with a foreign culture. Understanding the customs, behaviors, and points of views of others allows for an expanded world view. The more exercise that people get in expanding their world view, th easier it will be for them to adapt to new situations and figure
things out.

[26] C. George Boeree, "Jean Paiget and Cognitive Development," online publication, 2003, available from *http://webspace.ship.edu/cgboer/genpsypiaget.html*

[1] Frederick Winslow Taylor, *The Principles of Scientific Management*. New York: Harper and Brothers, 1911, p.19.

[2] See "Frederick Taylor and Scientific Management," Net MBA Business Knowledge Center, available online at: http://www. netmba.com/ mgmt/scientific/

[3] See "Talent: Implications for a U.S. Army Officer Corps Strategy," Volume 2 of this monograph series, p.13. Available at https://www.officer-strategy.strategicstudiesinstitute.army.mil /sessions. php?catid=2

[4] While beloved by his subordinates, Mitchell had little tolerance for superiors who did not share his airpower vision. He could be thorny to the point of insubordination (a factor that would result in his court-martial several years later). He was also flamboyant, viewed by many senior officers as too free-speaking and self-promoting.

[5] A "mustang" officer is one commissioned directly from the enlisted ranks.

[6] Challenging the Army's heavily entrenched seniority system was not something Pershing was likely to take on, particularly as his own career had benefitted from such a challenge, creating deep resentments within the Army that endured across his career. In 1903, Pershing was a forty-three year old captain who had caught the attention of President Theodore Roosevelt as a vigorous and enterprising officer. Roosevelt petitioned the Army's General Staff to advance Pershing to field grade rank, but the Army refused to upset its seniority system. Roosevelt overcame this by exercising presidential prerogative, nominating Pershing as a brigadier general. Congress approved the nomination in 1906. This catapulted Pershing over more than 800 senior officers, shocking the Army establishment. Many officers considered the promotion the result of timely political patronage rather than merit - in addition to Roosevelt's support, Senator Francis Warren, Chair of the Senate's Military Appropriations Committee, had become Pershing's

father-in-law in 1905. See Matthew M. Oyos, "Theodore Roosevelt, Congress and the Military: US Civil-Military Relations in the Early Twentieth Century," *Presidential Studies Quarterly*, Vol. 30, No. 2 (Jun., 2000), pp. 312-330, online at: http://www.jstor.org/pss/27552096

[7] To his credit, MG Menoher fully recognized that he was unprepared to serve as Air Service chief, which is why he had requested BG Mitchell's appointment as his deputy. See: http://en.wikipedia.org/wiki/Charles_T._Menoher

[8] See Volume 5 in this monograph series, "Towards a U.S. Army Officer Corps Strategy for Success: Developing Talent," pp.9-10.

[9] Ibid. pp.8-9.

[10] http://en.wikipedia.org/wiki/Principal-agent_problem

[11] Source: Army Green Pages Pilot Program, survey of BOLC B and Captains Career Course students, Fort Leonard Wood, Missouri, March 2010. In addition, 97% of respondents believe that the creation of detailed officer job profiles within units is "very important" or somewhat important."

[12] Boyan Jovanovic, "Job Matching and the Theory of Turnover" *Journal of Political Economy*. Vol 87. 1979 p.974.

[13] In our view, the depth and breadth of individual talent grows during a career. Correspondingly, positions of greater responsibility generally require increasingly specific talents. This means that the utility of talent matching rises for mid to senior-ranking officers, although it is beneficial at all levels.

[14] All Business, "How Big was the Soviet GDP?" available online at: http://www.allbusiness.com/government/630097-1.html. Also see Stanford University's Hoover Institution, "An Autopsy of the Soviet Economy" by Gordon M. Hahn, available online at: http://www.hoover.org/publications/digest/3540681.html

[15] The Army Education Requirements System (AERS) is governed by Army Regulation 621-108. This regulation calls for an annual review and validation of all positions requiring an advanced degree, with approval granted by HRC and the Army G1.

[16] Hedonic demand theory suggests that the market will reveal information about the true object of demand through the supply and demand mechanism. It disaggregates talent into its constituent characteristics in an effort to determine the contributory value of each characteristic. In other words, it is the demand for the characteristic, not the demand for the individual *possessing* the characteristic, which reveals the valuable information. See: http://www.probert encyclopaedia.com/cgi-bin/res.pl?keyword=Demand+Theory&offset=0

[17] Green Pages was chosen as the name for this application because it evokes the Army while also harkening back to yellow and white pages, sources of information on organizations and individuals.

[18] An exception is at the flag rank level, particularly among four-star generals. These officers have sufficient "horsepower" to make talent matching the overriding assignment consideration when building officer teams. Generals from Marshall to Petraeus have consulted their "black books" to get the right officers in the right assignments at the right time. In doing so, however, the field of talented officers from which they select is more often than not constrained by personal experience or observation – in other words, while there may be better talent matches available, the generals may be unaware of them.

[19] Green Pages is being piloted with the Engineers because the Chief of Engineers requested it. Over the last decade, the branch has been sorely tested not just by war, but by simultaneous crises and humanitarian relief missions resulting from natural disasters in the U.S., Asia, the Caribbean, etc. As demand for engineer officer talent has surged, the Engineers realized that the current way of managing officers has not allowed them to respond as effectively as possible.

[20] Green Pages has utility not just as a tool for managing PCS assignments, but for a host of situations. In particular, it will allow leaders to find the right talent for "temporary duty" (TDY) assignments in response to short-term contingency requirements. It can also help commanders find talent for "network" assignments – officers who remain in place but work via Green Pages and other IT tools to respond to mission requirements around the globe. First, a commander may be willing to absorb an officer shortage in the near term and wait longer for the right officer to arrive, changing HRC's current "shortage equity" paradigm.

[21] Another culture change resulting from empowering commanders is in the area of "managing officer shortage equity." A commander may be far more willing to absorb an officer shortage in the near term if he or she knows that the wait is worth it and the right officer is on the way. This is far different than today's assignment culture, the premise of which is "anybody is better than nobody."

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[1] Carlo D'Este, *Eisenhower: A Soldier's Life.* New York, Henry Holt and Co., 2002, p. 235. That boss was Douglas MacArthur.

[2] In 1940, the expanding Army needed 150 additional generals. Of the 4,000 officers eligible for promotion, 2,000 had been evaluated as "superior and best suited," making it impossible to discern which officers possessed general officer talents. See Charles D. Herron, "Efficiency Reports," *The Infantry Journal, Vol. LIV* (April 1944), p. 31.

[3] "Black books" refers to the personal inventories of officer talent maintained by senior leaders, a practice as old as the Army itself. Theodore Roosevelt identified Pershing for leadership in this fashion, just as Marshall identified Eisenhower. Black books represent a senior leader's inventory of high potential talent based largely upon first-hand experience. While useful, they reveal just the tiniest segment of officer talent – for example, had Marshall not personally served with a young Eisenhower, the future president's military career might have ended in

relative obscurity in 1940 despite his deep enterprise management abilities.

[4] D'Este, p. 283. Ike's assignment to the War Plans Division put his talent on daily display for General Marshall. It was instrumental in his rapid ascent to five stars.

[5] 2007 SOC database.

[6] SR 600-185-1, Sec 1.

[7] D'Este, pp. 279-280.

ENDNOTES – VOLUME III APPENDICES

Appendix A

[1] In the Total Army Personnel Database, this data is captured in an officer's source of commission (SOC). Key levels of this variable are USMA, ROTC DMG, ROTC, OCS DMG, OCS.

[2] Typically, the top 15 percent of each ROTC and OCS cohort earn the DMG distinction based upon their standing on ROTC and OCS order of merit lists.

[3] Reducing year-over-year retention rates in Column A by 1 percentage point, we obtain the year-over-year rates indicated in Column C. Multiplying the rates contained in Columns A and C by the cumulative retention rate at 36 months of service, 93.3 percent, we obtain the base and adjusted cumulative retention rates indicated in Columns B and D. At the end of 120 months of service, 46.8 percent of the starting population of 6,000 officers, or 2,811 officers, would remain on active duty using retention rates exhibited by Year Group 1999 officers. Using the adjusted retention rates, the continuing population would fall to 2,600 officers. Over seven officer-year groups comprising the Army's population of majors, this 211 officer difference accumulates to 1,472 fewer officers available for advancement to the grade of major.

Months of Service	**Column A** Base Year-Over-Year Retention Rate	**Column B** Cumulative Retention Rate	**Column C** Adjusted Year-Over-Year Retention Rate	**Column D** Adjusted Cumulative Retention Rate
36		93.3%		93.3%
48	91.3%	85.2%	90.3%	84.3%
60	83.5%	71.2%	82.5%	69.6%
72	89.7%	63.9%	88.7%	61.7%
84	88.9%	56.8%	87.9%	54.3%
96	91.3%	51.9%	90.3%	49.0%
108	93.5%	48.5%	92.5%	45.3%
120	96.6%	46.8%	95.6%	43.3%
Number of Officers Remaining from a Starting Accession Population of 6,000 Officers				
	2,811		2,600	

Appendix D

[1] Officer force structure does not include billets for officer education and development outside of units. Instead, the Army accepts an operating strength deviation between billets in its force structure and personnel to staff these billets. This deviation includes trainees, transients, holdees, and separatees (TTHS). This approach implicitly classifies the time Soldiers spend in schools and away from operational units as an overhead cost. Unless the Army intends to send civilians and untrained personnel into its combat formations it should account for the time invested in developing Soldiers at each stage of their career. This time bears a clear relationship to the Army's force structure. For example, assuming all officers will attend CGSC soon after becoming a major, this developmental experience represents an investment of 2,200 man-years of major time each year. To avoid shortchanging field units, the Army should account for these man-years in its force structure, creating a requirement for 18,581 majors rather than the 16,381 now reflected in manning documents. Alternatively, the Army could reduce major billets in its operating units by 2,200.

[2] If the Army added developmental assignments in advanced civil schooling and ILE to its structure, it would need to access approximately 7,700 officers each year given current retention rates.

[3] Peter Cappelli, *Talent on Demand*, Boston, MA: Harvard Business Press, 2008, p. 185.

[4] The overhead account is formally known as the individuals account or Transients, Holdees and Students account. Under current Army practices, billets for students are not accounted for in Army structure. As such, any situation which yields increased numbers of permanent officer relocations between installations (transients) or increases the amount of time officers spend as students increases the deviation between unit operating strength and unit authorizations with adverse consequences for unit status as reflected in readiness reports.

[5] We estimate this cost to be about 2,100 man-years of lieutenant and 900 man-years of captain structure.

[6] HQDA briefing, "Active Army Manning Program and the Individuals Account," April 2009.

[7] The continued flight of senior captains has generated approximately $100 million of payroll lag annually, which is redirected to other manpower programs. In essence, poor retention causes the Army to divert *investments* in productivity (payroll) to cover *expenses* elsewhere.

[8] Charles A. Henning, *Army Officer Shortages: Background and Issues for Congress*, Washington, DC: CRS Report for Congress, July 5, 2006, p. 3.

[9] ACC accession branches are Armor, Infantry, Field Artillery, Aviation, Air Defense, Engineers, Chemical, Military Police, Military Intelligence, Signal Corps, Ordnance, Transportation, Quartermaster, Finance, and Adjutant General.

[10] Virtually all Medical Corps, Medical Specialty, Veterinarian, Dental, and Judge Advocate General Corps officers enter the Army via lateral entry. Following their entry into the Army, most of these officers serve

in duties focused upon the provision of professional services and not as leaders of troop units.

[11] The Army must be cognizant of branches that can be filled by lateral entry.