

OFFICER CORPS STRATEGY SERIES

ACCESSING TALENT: THE FOUNDATION OF A U.S. ARMY OFFICER CORPS STRATEGY

Casey Wardynski
David S. Lyle
Michael J. Colarusso

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This monograph is the fourth in a series of six monographs that analyze the development of an Officer Corps strategy. Previous volumes are:

- 1 - *Towards A U.S. Army Officer Corps Strategy for Success: A Proposed Human Capital Model Focused Upon Talent*, by Colonel Casey Wardynski, Major David S. Lyle, and Lieutenant Colonel (Ret.) Michael J. Colarusso, April 2009.
- 2 - *Talent: Implications for a U.S. Army Officer Corps Strategy*, by Colonel Casey Wardynski, Major David S. Lyle, and Lieutenant Colonel (Ret.) Michael J. Colarusso, November 2009.

3 - *Towards a U.S. Army Officer Corps Strategy for Success: Retaining Talent*, by Colonel Casey Wardynski, Major David S. Lyle, and Lieutenant Colonel (Ret.) Michael J. Colarusso, January 2010.

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FOREWORD

Accessing Talent: The Foundation of a U.S. Army Officer Corps Strategy, is the fourth of six monographs focused upon officer talent management in the U.S. Army. In it, Colonel Casey Wardynski, Major David S. Lyle, and Lieutenant Colonel (Ret.) Michael J. Colarusso continue their examination of how the U.S. Army accesses, develops, retains, and employs officer talent. In particular, they focus upon the ways in which dynamic labor market conditions and generational preferences have shaped service propensity among potential officer prospects.

As in the previous volumes of this series, the authors first articulate a theoretical framework for improvement and then demonstrate how the application of those theories can yield desired results. In sum, they explain why a proper talent accessions strategy can create a “positive sum game” for the Army as perhaps nothing else can.

Since the officer accessions process presents the Army with a dramatic opportunity to leverage talent investments made by others, the theories and programs discussed in this monograph merit thoughtful consideration.



DOUGLAS C. LOVELACE, JR.
Director
Strategic Studies Institute

ABOUT THE AUTHORS

CASEY WARDYNSKI is Director of the Office of Economic and Manpower Analysis and an Associate Professor of Economics at the United States Military Academy, West Point, NY. In addition to creating the concepts for the “America’s Army” game and the Army’s pre-commissioning retention incentives, Colonel Wardynski has published in the area of military compensation policy and manpower. Colonel Wardynski earned a B.S. at West Point, a Masters in Public Policy at Harvard, and a Ph.D. in Policy Analysis from the Rand Graduate School.

DAVID S. LYLE is an Associate Professor of Economics and Deputy Director of the Office of Economic and Manpower Analysis at the United States Military Academy, West Point, NY. He has publications in the Journal of Political Economy, the Journal of Labor Economics, the Review of Economics and Statistics, the American Economic Journal: Applied, and the Economics of Education Review. Major Lyle earned a B.S. at West Point and a Ph.D. in Economics from the Massachusetts Institute of Technology.

MICHAEL J. COLARUSSO is a research analyst in the Office of Economic and Manpower Analysis at the United States Military Academy, West Point, NY. He is a retired U.S. Army lieutenant colonel and has served in a variety of military positions, to include as an Assistant Professor of History at West Point. Mr. Colarusso earned a B.A. in History from Saint John’s University and a M.A. in History from the Pennsylvania State University.

SUMMARY

Once the Army accesses a cohort of officers, it must live with them throughout a 30-year career span. This is because, 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.

Accessing the right officer talent 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 provide 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. It also increases the likelihood of retaining talent, particularly when sound accessions programs are linked to targeted retention initiatives.

Accessing the "right" talent means 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.

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. 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.

First, the Army must understand the market place in which it competes. In an all-volunteer force, the prospect pool ultimately determines the scope and tempo of Army talent accessions. The physical demands and risks associated with Army service means that at some point the pool of willing prospects will begin to dwindle. Therefore, understanding the shocks that shift the labor supply curve, and how each military age generation will respond to these shocks, is central to understanding the talent market in which the Army competes for officers.

Second, the Army must know how to communicate with prospects and understand how they may respond to information. The Millennial Generation comprises the bulk of today’s officer prospect market, and the Information Age has profoundly shaped their view of

the military. These young people 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 direct connections, 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. Getting talented young people interested in the Army and overcoming its negative perceptions relative to the other services therefore requires innovative marketing. Today's military-age young people are consumers of data, live on the internet, play virtual games, develop virtual networks, and have lived most of their life in relative economic prosperity. Successfully framing the Army for them requires an approach that makes the Army more engaging, informative, socially based, and interactive.

Successful talent accessions set the table for a potent Officer Corps strategy. In all other areas (employing, developing, and retaining officer talent), 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 detracting from its productivity elsewhere. In the long run, this is a positive sum game, one where the capabilities of the Officer Corps are driven upward by human capital acquired from outside the Army.

**ACCESSING TALENT:
THE FOUNDATION OF A U.S. ARMY OFFICER
CORPS STRATEGY**

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

Warren Buffett¹

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).

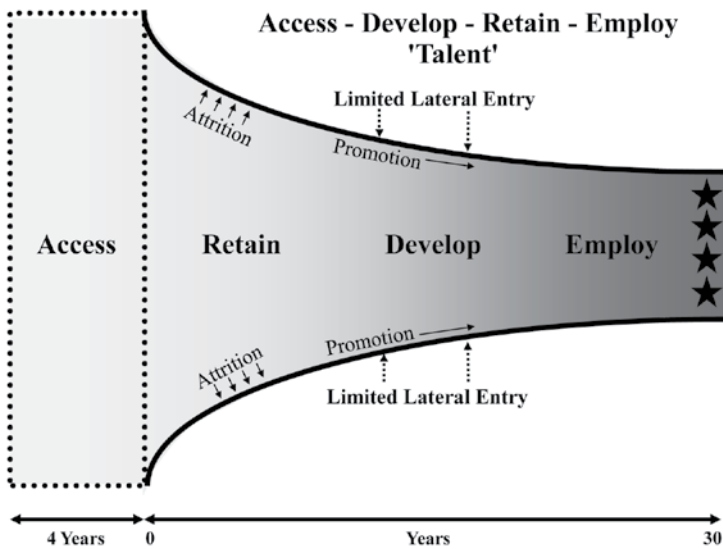


Figure 1. Army Officer Human Capital Model.

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 provide 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.

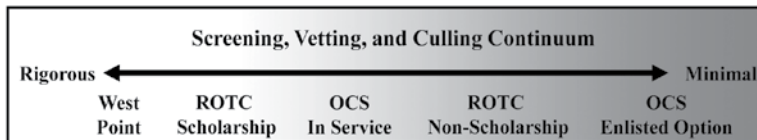


Figure 2. Screening, Vetting, and Culling Continuum.

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

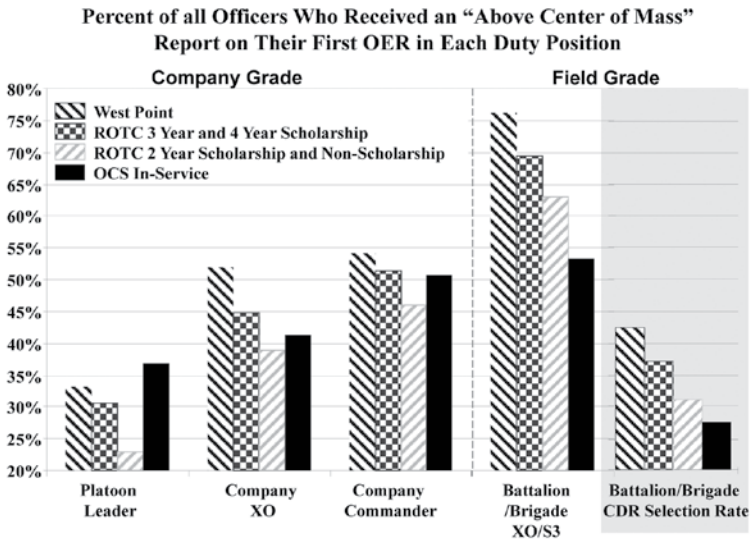
At the other end of the continuum is Officer Candidate School (OCS) with the Enlistment Option (EO). OCS-EO is resourced to attract college educated individuals who choose to pursue a commission after completing their undergraduate education. Minimal screening, vetting, and culling measures require candidates 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 nonscholarship 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 nonscholarship cadets between OCS-IS and OCS-EO on the screen-vet-cull continuum. While ROTC nonscholarship 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 nonscholarship 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 commissioning, 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 commissioning, ROTC nonscholarship 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.

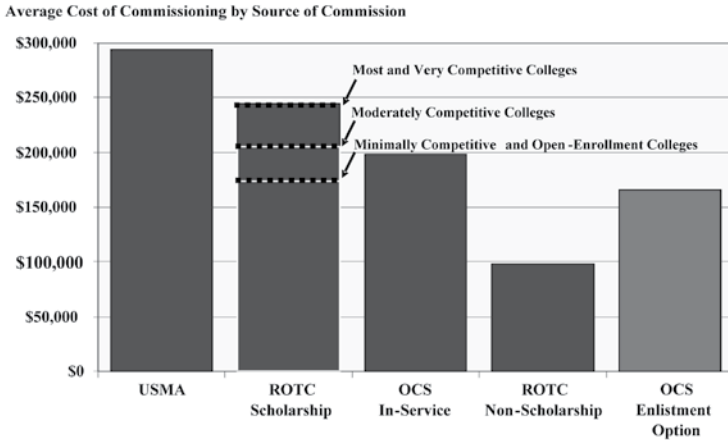


Figure 4. Average Cost of Commission.

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.

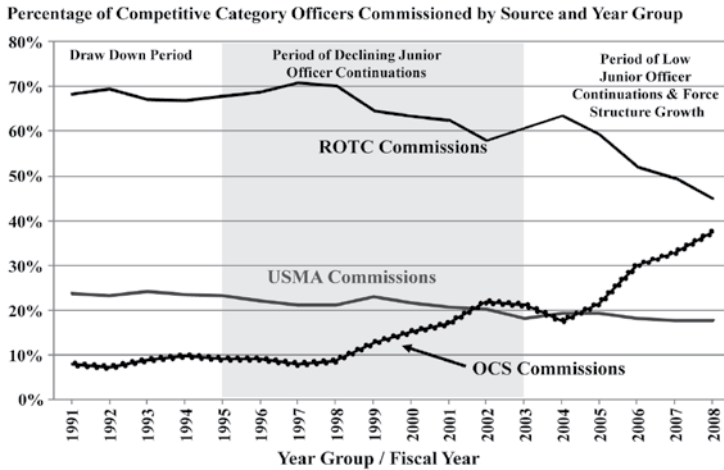


Figure 5. Officer Accessions Mix by Source of Commission.

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. 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

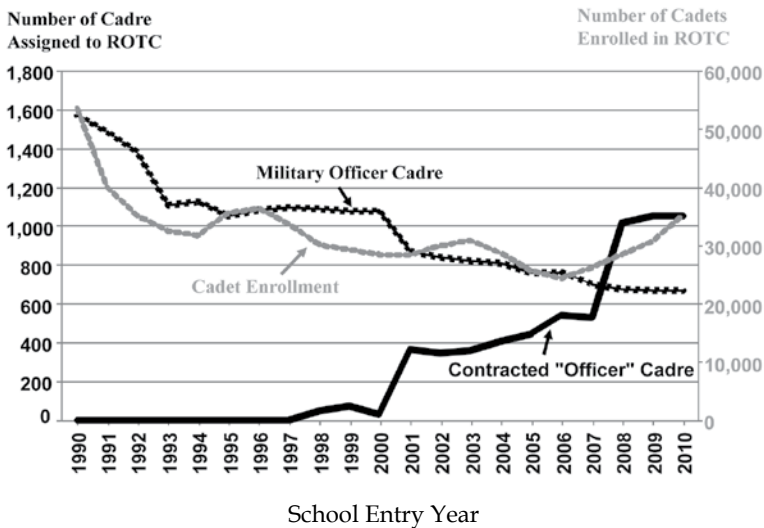


Figure 6. Significant Cuts in ROTC Officer Cadre.

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 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.

Number of Officers: Data as of 30 September 2009

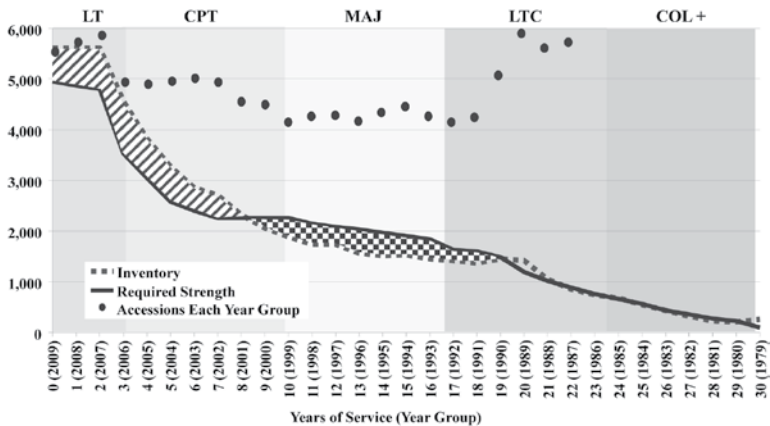


Figure 7. Authorized Strength and Inventory (with Trainees, Transients, Holdees and Students) for Army Competitive Category Officers.

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.

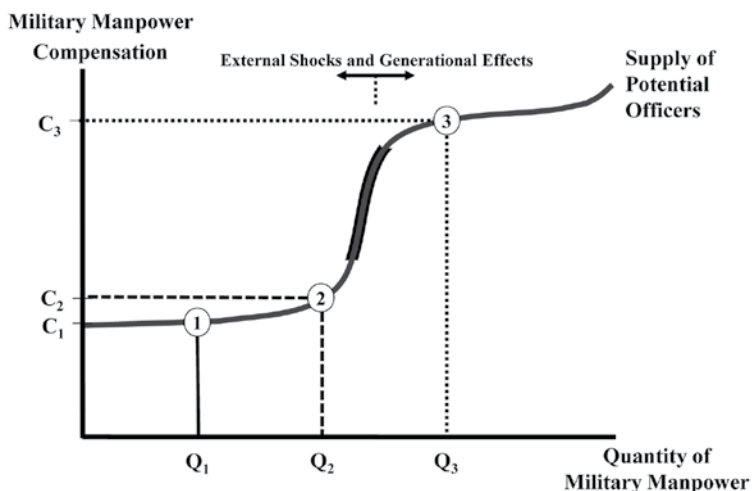


Figure 8. S-Shaped Officer Supply Curve.

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 C_1), the Army can expect to have a quantity of officer prospects (Q_1) 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 Q_2), it must raise compensation from C_1 to C_2 . 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 decisionmaking 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 decisionmaking as well (see Figure 9).

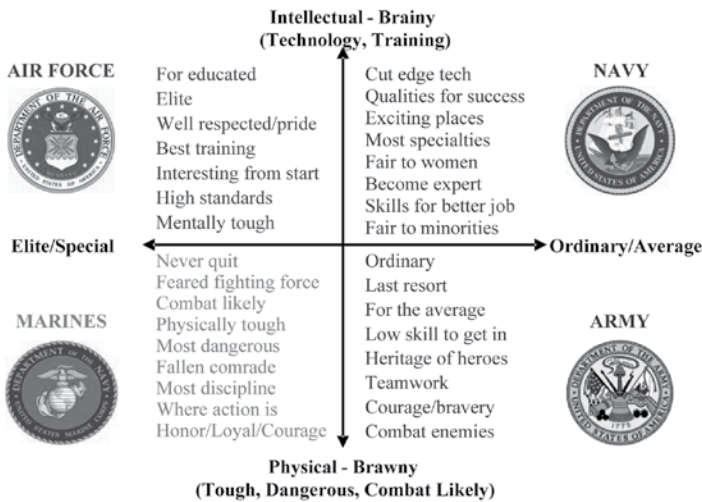


Figure 9. Public Perceptions by Branch of Service.

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.

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.)

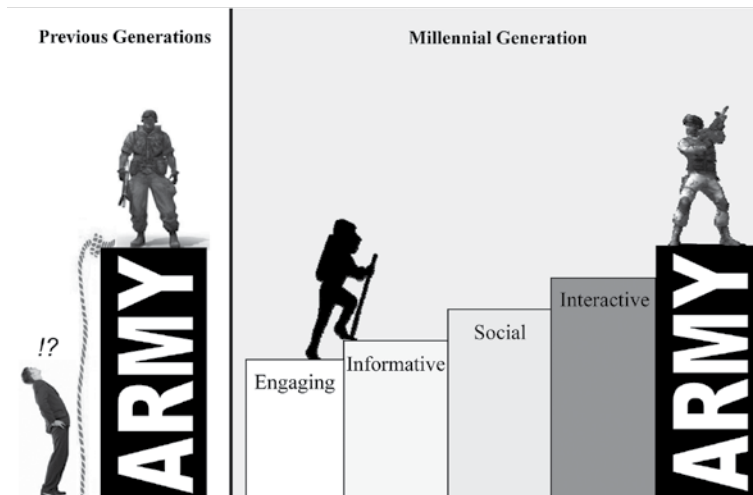


Figure 10. Approaching the Army as a Profession.

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 decisionmaking based upon *heuristics* (cognitive shortcuts that reduce complexity and speed decisionmaking) 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 decisionmaking. 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 decisionmaking 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 decisionmaking 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. 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 Nonscholarship, 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.

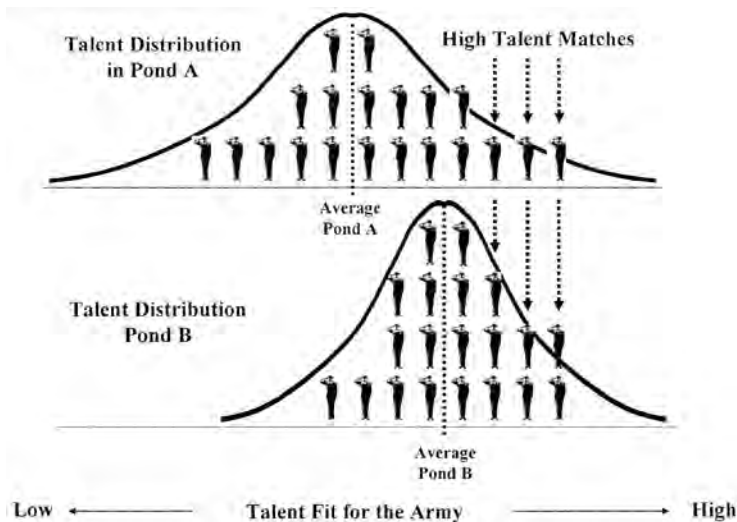


Figure 11. Fishing in the Right Pond.

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 Nonscholarship 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 decisionmaking 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.

Marginal Cost of Commissioning by Source of Commission

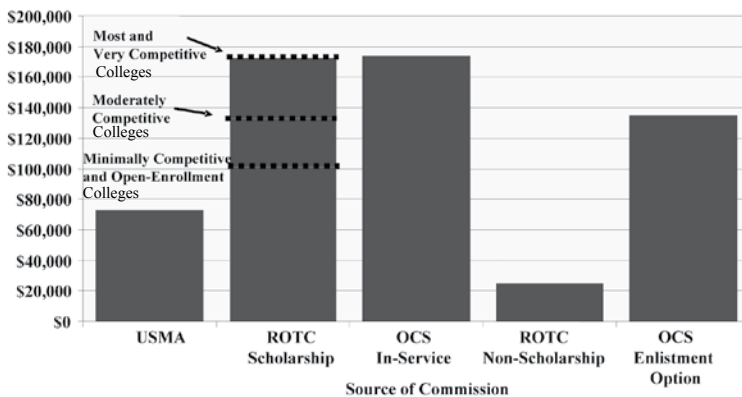


Figure 12. Marginal Cost of a Commission by Source.

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.

ENDNOTES

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, Volume 2A, 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 nonscholarship 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 nonscholarship Cadet to determine average costs across the scholarship/nonscholarship 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 Noncommissioned 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. OCS-EO 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 endstrength. 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 decisionmaking 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 nonscholarship 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."