



UNITED STATES ARMY

Army Green Pages



Proof-of-Concept Pilot Report:

**Using Regulated Market Mechanisms
to Manage Officer Talent**

15 DECEMBER 2012 (v.11)

Army Green Pages Proof-of-Concept Pilot Report

Using Regulated Market Mechanisms to Manage Officer Talent

Office of Economic and Manpower Analysis

15 December 2012

ABSTRACT: Following an Officer Corps Strategy Conference held at West Point in June of 2010, the Assistant Secretary of the Army (Manpower and Reserve Affairs) and CG TRADOC directed proof-of-concept piloting of the “Army Green Pages,” an experimental, web-based talent management environment. The purpose was to study behavioral responses to market-based incentives implemented within existing officer assignment practices. Piloting occurred from August 2010 to August 2012. Results indicate that an online assignment market provides officers with ample incentive to enter granular and accurate talent data, which can subsequently improve Army talent management. The construct of the market, however, requires adherence to economic principles and careful regulation to achieve desired outcomes.

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Army Green Pages Proof-of-Concept Pilot Report

Synopsis

Today's operating environment changes faster than Army doctrine and institutions can, and work is increasingly task interdependent, skill specific, and uncertain. Since the early 1980s, the domestic American labor market has increasingly demanded much of the same rapid conceptualization, knowledge creation and problem solving talents in demand across the Army Officer Corps. This labor competition caused a decline in junior officer retention, creating challenges across officer accessions, development and employment.

These challenges have been exacerbated by well-intentioned Army programs that failed to understand their root causes and therefore magnified rather than reduced them, creating a vicious cycle of undesirable outcomes. Examples include the over-accessions of new officers (reducing both developmental time and employment efficacy), habitual shortages of senior captains and majors, undue reliance upon OCS (internal talent poaching that lowers talent levels in the NCO and Warrant Officer Corps without filling the Army's mid-career officer shortages), the gutting of the Generating Force (Institutional Army), loss of discretion over officer promotion timing and opportunity, and a decline in graduate-level and other educational opportunities.

Collectively, these unintended consequences demonstrate the need for an integrated officer talent management effort. Recognizing this, the Assistant Secretary of the Army (Manpower and Reserve Affairs) and CG TRADOC co-chaired an officer corps strategy conference at West Point in June of 2010. At conference-end, both leaders directed the development and piloting of a secure, web-based talent management environment called "Green Pages." The Engineer Regiment eagerly agreed to provide the pilot population.

With assignments as its centerpiece data entry incentive, Green Pages would attempt to reveal and align engineer officer talents against unit demands. However, while better talent matches are important, **the overriding purpose of the Green Pages pilot would be to capture accurate, granular information on every officer and every duty position, facilitating the future management of each.** With such a capability, the Army could wean itself from reliance upon

error-prone requirements forecasts. Instead, it could become a truly adaptable institution by capturing, developing and employing each officer's unique talents. The Army could then achieve the breadth and depth of capability needed without requiring every officer to master everything (the pentathlete approach).

The Green Pages online talent marketplace opened in August 2010 and closed in August 2012. During this time, the Engineers executed 19 piloting iterations, with 748 total officers receiving PCS assignments. Piloting integrated three participating "customer" segments: Army officers (the talent "supply"), Army units (the talent "demand"), and Engineer assignments officers in HRC (the talent managers or "agents"). In the pilot marketplace:

- **Officers** (the Talent Supply) sought employment and developmental opportunities to liberate and extend their talents, allowing them to make an optimal contribution to the Army while simultaneously pursuing their personal and professional goals.
- **Units** (the Talent Demand) sought officers who could dramatically exceed minimal performance because there was a high correlation between their talents and work requirements.
- **Assignments Officers** (the Agents) focused less upon transactions and enforcement and more upon people and performance, shifting their energies away from requirements management and towards talent management.

Piloting results indicated that an online assignment market provides officers with ample incentive to enter a wealth of granular and accurate talent data. Participating officers built detailed personal profiles that heavily augmented the talents visible in official files (which were top-fed into Green Pages from the Army's Total Army Personnel Database - TAPDB). For example, 131 officers revealed previously undocumented engineer certifications which would conservatively cost over \$28 million to produce.¹ A further example: according to the TAPDB, all pilot participants have visited roughly 28% of the world's countries. Green Pages revealed, however, that those same officers actually visited 72% of the world.

¹ Costs were estimated by a licensed Professional Engineer (PE) in the Civil and Mechanical Engineering Department (CME), United States Military Academy, West Point, NY.

While officers built their personal profiles in Green Pages, units simultaneously built job profiles, elaborating on the talents needed to excel in pending officer vacancies (which were top-fed into Green Pages from official authorization documents). Officers reviewed these vacancies and expressed preferences to fill them, while units reviewed available officers and expressed their preferences in turn.

As officers and units communicated directly with one another, units reordered their officer preferences and officers reordered their assignment choices. In fact, **half of all participating officers changed their initial assignment preference while exploring the job market.** The reasons for this dramatic shift are fairly straightforward. Units signaling their labor needs attracted officers who could meet them. Conversely, officers revealed hidden talents and units who might not have otherwise considered them now took notice. During this entire process, Engineer assignments officers facilitated and monitored the market. HRC remained the assignments arbiter – the Green Pages pilot created an information marketplace, not a transactional one. Consistent with existing policies and requirements, HRC simply used the additional data gathered by Green Pages to optimize assignments.

The outcomes engendered by Green Pages are neither novel nor surprising. America’s highly regarded people managers (General Electric, Proctor & Gamble, Goodyear, IBM and others) have been using talent management IT systems for years, liberating their HR staffs from labor-intensive, transactional personnel management and freeing up financial and human capital for talent management. The HR departments making best use of this technology are truly transformational in nature, making outsized contributions to their organizations’ achievement of strategic goals.

In sum, the Green Pages pilot makes clear that talent management information systems can reveal the actual state of a labor force, the critical asset in any organization. If Green Pages lessons learned are incorporated into the acquisition and fielding of a fully-featured talent management system,* the Army’s employment paradigm should shift from largely command-directed to a more collaborative, market-driven and thus effective one.

* At the time of writing, that system is slated to be the “Integrated Personnel and Pay System-Army” (IPPS-A), with a talent management module scheduled for release sometime in mid-decade.

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Army Green Pages Proof-of-Concept Pilot Report

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I. ESSAYONS – THE IMPETUS FOR GREEN PAGES

The Green Pages talent market concept uses the officer assignment cycle as an incentive to gather granular and accurate data so the Army can better manage its officer talent. Green Pages inventories officer talent supply and organizational talent demand such that the Army learns more about its talent requirements and the talents it already possesses. As a result, all actors in the market have more information to improve their satisfaction, and the Army has a dynamic mechanism to guide development and career progression across its officer ranks.

INTRODUCTION

Today's operating environment changes faster than Army doctrine and institutions can, and work is increasingly task interdependent, skill specific, and uncertain. Since the early 1980s, the domestic American labor market has increasingly demanded much of the same rapid conceptualization, knowledge creation and problem solving talents in demand across the Army Officer Corps. This labor competition caused a decline in junior officer retention, creating challenges across officer accessions, development and employment.

These challenges are often exacerbated by well-intentioned Army programs that do not understand their root causes and therefore magnify rather than reduce them, creating a vicious cycle of unintended outcomes. Examples include over-accessions of new officers (reducing both developmental time and employment efficacy), habitual shortages of senior captains and majors, undue reliance upon OCS (internal talent poaching that lowers talent levels in the NCO and Warrant Officer Corps without filling the Army's mid-career officer shortages), the gutting of the Generating Force (Institutional Army), loss of discretion over officer promotion timing and opportunity, and a decline in graduate level education and other broadening opportunities for officers. Collectively, these unintended consequences demonstrate the need for an integrated officer talent management effort.

Upon taking command of the U.S. Army Corps of Engineers, LTG (R) Robert Van Antwerp identified the lack of officer talent management as a particular challenge. In particular, he suspected that the Engineer Regiment wasn't prepared to confront the growing need for construction and civil engineering expertise. To confirm this, however, he needed information that the Corps did not yet possess - the Army's engineer *demand* versus its actual *supply*. In 2008, LTG Van Antwerp asked his commandant (then BG Gregg Martin) to get

the data so that an engineer officer strategy (“*Building Great Engineers*”) could be designed around it.

General Martin led a thoughtful effort to gather all engineer talent information then available. His team began by combing through Army administrative systems, making data calls to Engineer officers, and assembling Councils of Colonels to divine the engineer talent required by the Army and the talent on hand. It quickly became clear, however, that existing information systems lacked granularity and accuracy. Meanwhile, data calls to the engineer officer population rendered low participation. As a result, the best efforts of Councils of Colonels amounted to little more than informed guesswork. In short, these strenuous and time consuming efforts produced vague, dated and inaccurate results. A new approach was needed.

Knowing that it possesses the largest integrated personnel database capability in the Army, General Martin turned to the Office of Economic and Manpower Analysis (OEMA) for assistance. While our office was eager to assist the Engineers, we quickly realized that the talent information challenges they faced were by no means unique. Any talent management information solution devised for the Engineers would have utility for the entire Officer Corps. Senior Army leaders recognized this as well. The CG, TRADOC, the ASA M&RA and the Army G1 were already articulating the need for more comprehensive data on *all* officer talent to ensure the most effective and efficient use of leaders in an increasingly dynamic and uncertain future and at a 2010 Officer Corps Strategy meeting at West Point, the Army’s Human Capital Enterprise leadership asked OEMA to devise and test a solution.

In response, OEMA created the Green Pages talent market concept. The idea was born from several key observations, particularly that individual officers had no incentive to respond to data calls and Councils of Colonels could not articulate dynamic talent demands. Additionally, the Officer Record Brief (ORB - the closest thing to an officer talent “snapshot”) lacked detail, often contained errors, and was not searchable. What was needed was a way to incentivize accurate, granular data entry into an intuitive, searchable information technology environment. Green Pages would be that environment, and in the spirit of *Essayons* (“let us try”), the Engineers would provide the first pilot population.

The “big” idea behind Green Pages was that certain aspects of the Army’s internal labor market (particularly assignments) provide the right incentive for commanders to list their

talent requirements (the demand) and for officers to list their unique talents (the supply). In short, an electronic talent market could be created via an inexpensive, web-based environment. We believed that if appropriately regulated by assignment officers, such a talent market could reveal accurate and granular talent information on thousands of officers and duty positions across the Army. That information would in turn inform future officer development decisions, facilitate data sharing, improve career satisfaction, and align the Army's officer talent against requirements far more efficiently than legacy practices. OEMA therefore engineered the Green Pages pilot environment around the PCS assignment process. Participating officers would log into Green Pages, add talent information to supplement the TAPDB ("official") data already top-fed into their profile, and list their top five assignment preferences.

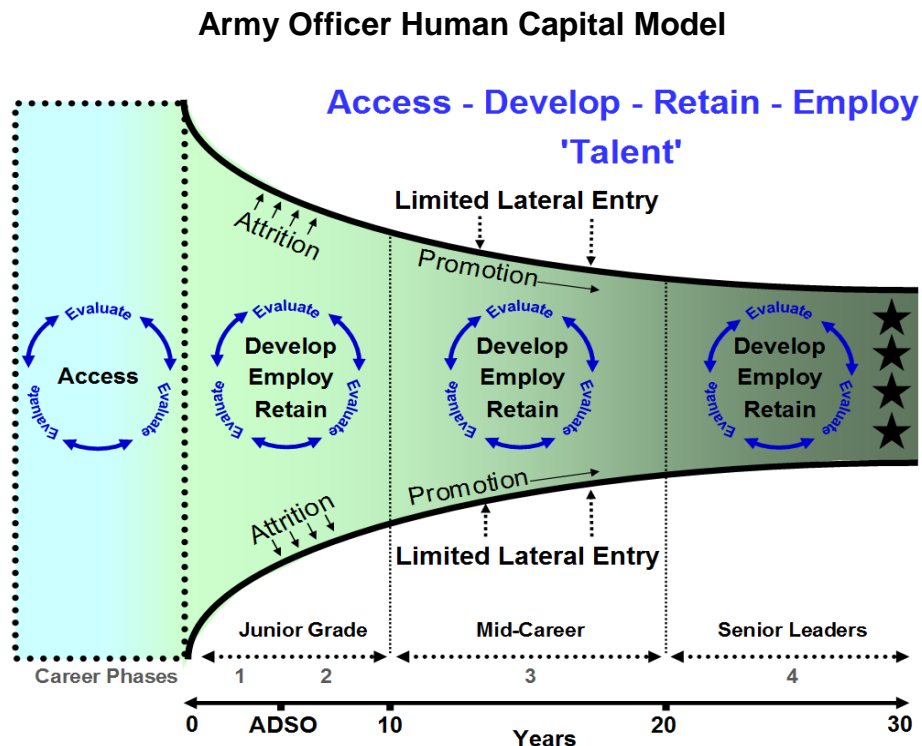
During piloting, nearly all officers created a robust personal profile in an effort to market their talents to prospective battalion commanders. Simultaneously, participating units logged into Green Pages, created job profiles detailing unique talent requirements, and posted additional unit information. After reviewing officers' profiles and assignment preferences, units could indicate their preferences for officers. During this process, officers often changed their assignment preferences upon learning that a unit they hadn't considered was interested in them for an open assignment.

This free information exchange increased assignment transparency and provided the right incentive for officers and units to provide new information on talent supply and demand in the Army. It also caused officers to review and correct inaccurate top-fed data in their Green Pages profiles. Both units and officers reported a greater sense of control over (and satisfaction with) the assignment process. Meanwhile, HRC assignment officers reported the ability to make more mutually beneficial assignments because they had a wealth of new talent supply / demand information. This information dominance helped them to shape assignment preferences in ways benefitting both officers and organizations. It also became clear that a tool such as Green Pages could make "guesswork" a thing of the past. For example, Councils of Colonels would no longer need to "guess" at the number of electrical engineers required, as the market could reveal this information in real time.

APPLYING TALENT MANAGEMENT THEORY TO ARMY OFFICERS

The theory and data that underpin an officer talent management paradigm is described in a six volume series of Strategic Studies Institute (SSI) monographs published from April 2009 to May 2010.² This analysis argues that a number of factors have fundamentally changed both the U.S. labor market and the national security threats confronting the Army. Perhaps most importantly, the Information Age demands employees who can process large amounts of information, provide services, or add knowledge. The Army increasingly needs these talents, but so does the private sector. Prior to the advent of the All Volunteer Force (AVF) in 1974, the Army could conscript the talent it needed, but today it must compete head-to-head in the American talent market. The Army has fared somewhat poorly in this competition, necessitating a new approach to managing the Officer Corps; a talent-based approach.

The Army officer human capital model consists of the four interrelated activities depicted below. *Accessing, developing, retaining, and employing* talented officers is integral to the Officer Corps' future success for a number of reasons. For example, limited lateral entry

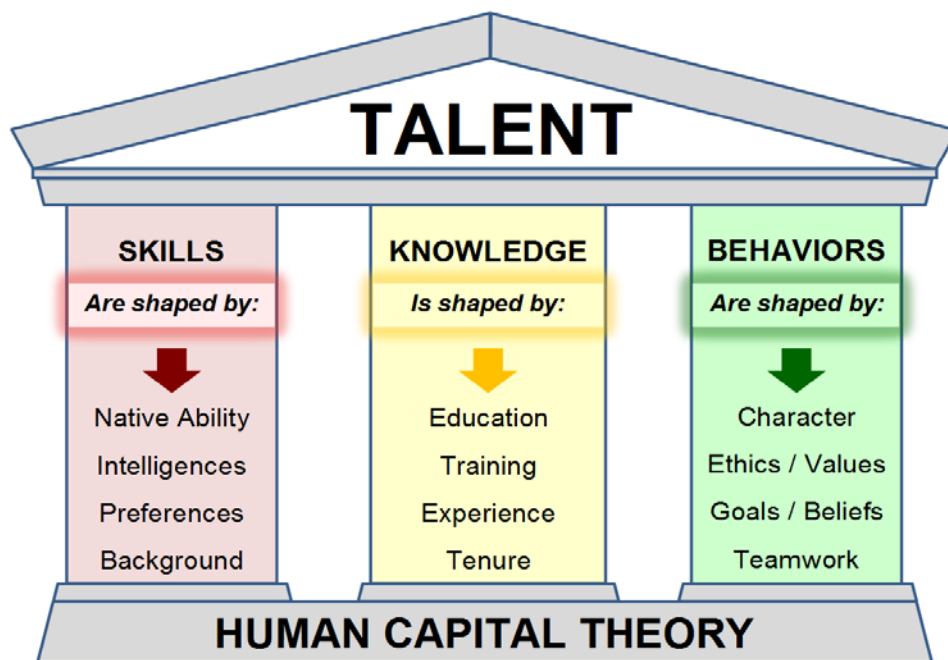


² available at: <http://www.strategicstudiesinstitute.army.mil/pubs/publication-search-results.cfm?submit=Search&criteria=talent>

prohibits the Army from poaching mid-career or senior-grade talent from competitors as American industries do. As junior officers are the feedstock for future senior officers, it's critical to manage existing officer talent through these four phases to ensure the right leaders are prepared and available to lead the Army of the future.

Certainly the Army has always accessed, developed, employed and retained officers, but as interchangeable parts. What makes our model different, however, is our concept of "talent," firmly grounded in sound human capital theory. Talent is NOT some "top 10 percent" of workers. Instead, it's the *unique* intersection of skills, knowledge and behavior in each of us. *Everyone* has talents that can be extended and liberated, provided those talents are recognized and cultivated. Doing so can create optimal levels of performance in a much larger segment of an organization's workforce.³

The Dimensions of Individual Talent



Acknowledging the unique talent distribution of each person is only half of the talent management challenge. The Army must also recognize that there are equally unique talent demands across its organizations. Doing so will allow it to thoughtfully manage the nexus of individual talent supply and organizational talent demand, to create a true talent management

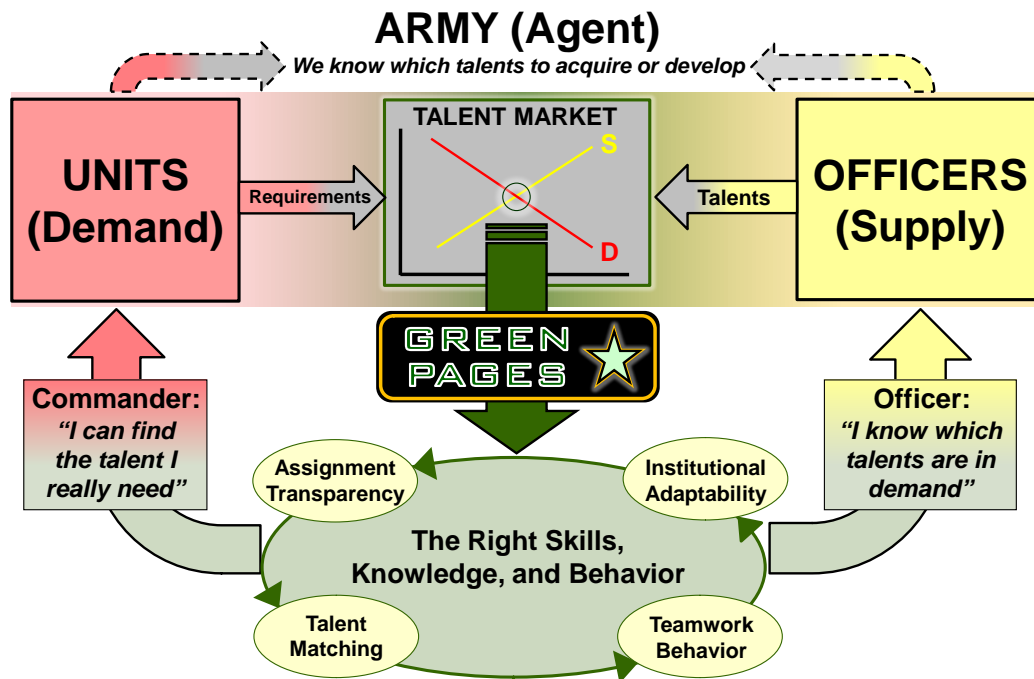
³ Wardynski, Lyle & Colarusso. "Talent: Implications for a U.S. Army Officer Corps Strategy." November 2009. <http://www.StrategicStudiesInstitute.army.mil>

system that puts the right officer in the right place at the right time. Officer talent management is a means to an end, not an end in itself. It has but one purpose: to help the Army achieve its overall objectives. It does this by mitigating the greatest risks: the cost of a mismatch between numbers of officers and requirements; and the cost of losing talented officers to the civilian labor market.

II. THE GREEN PAGES OPERATING CONCEPT

As OEMA set out to devise a talent management information technology environment with market-based business rules, we first considered the relevant behavioral economic theories underlying the creation of an online job market. These theories helped us to predict how people would behave in the Green Pages environment and which incentives would move them to action. It's a critical first step, as any such environment must proceed from an understanding of how markets work, why they fail, and what can be done to prevent these failures.⁴

The Green Pages Operating Concept



As mentioned in our introduction, the centerpiece innovation behind the Green Pages operating concept is the use of assignments (jobs) as an incentive for the information exchange between officers (supply) and units (demand). These exchanges resulted in more officers receiving their preferred assignments because they changed their preferences after gaining more information from the market. As both the supply and demand search against one another, the bulk of the talent market “clears” optimally (in other words, each respond to the others’ information and adjust preferences accordingly). In this market, officers have a

⁴ See Appendix 1 for a more detailed discussion of the economic theory underlying Green Pages.

strong incentive to market their talents to compete for the assignments they want. With fixed wages, the pricing mechanism creates match satisfaction on both sides. The graphic on the previous page illustrates the market process from points 1 thru 5:

1. Supply (officers) and Demand (commanders) populate the market with information.
2. Green Pages captures the information and makes it available to both sides.
3. Supply shops for jobs, Demand shops for talent. Both adjust and indicate preferences.
4. HRC uses talent information and informed preferences to assign job matches.
5. The market interchange provides granular and accurate data on talent supply and demand.

That new data makes talent management possible, and there's a lot of it. The richness of each person's collective life experiences represents tremendous capital in the Army "talent" market. When an officer participates actively in Green Pages, he or she creates a detailed profile that summarizes 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.

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

While a fair share of the market clears as units and officers indicate preferences for each other, HRC continues to act as the assignment agent by working with units and officers to make the best match based on Army requirements, officer development, as well as individual and unit preferences. Although HRC remains the assignments arbiter, with the increased information and market exchange it can better focus efforts on the role of advocating for and approving talent matches rather than simply making assignments. With additional information, assignment managers can also better justify the placement of officers into specific assignments when Army requirements take precedence over individual preferences.

III. PILOT DESCRIPTION & FINDINGS: ENGINEER CASE STUDY

You're at the Engineer Captain's Career Course (CCC) and your assignment officer is about to brief your class. You file into an auditorium to hear about the latest "needs of the Army" and to schedule one-on-one appointments with the assignments officer for later that week.

As you turn in your top five assignment preferences worksheet, you're surprised to learn that your assignment process will leverage a new information technology called Green Pages. Your assignment officer explains the concept of talent management and says that everyone has their own unique talents which will inform the assignment process. He demonstrates how to build an individual Green Pages profile to provide more information to units who will seek out officers with just the right talents to match their requirements. You're told you'll have access to this website for several weeks to build your profile and interact with units. At the same time, units will be able to "see" you and your classmates' profiles. Not only will you have access to a complete list of assignments and unit details, but you'll also be able to contact units directly. When the interaction window closes, you'll be able to update your top assignment preferences.

*Your assignment officer assures you that a computer program will **not** make your assignment; he will still make your assignment decision, but he'll have far more information to do it, resulting in more assignments that make officers happy, units happy, AND meet the needs of the Army. You look at him closely – he's serious. Your buddy whispers "Sounds like the leadership is really listening..."*

OVERVIEW

From August 2010 to August 2012 the Engineers executed 19 iterations of Green Pages piloting, with 748 total officers receiving PCS assignments. These included 10 iterations of captains, 7 of majors, and 2 of lieutenant colonels.⁵ Per the vignette above, each iteration has three distinct phases: a *pre-market profile-building phase*, a *market phase*, and a *post-market assignment phase*.⁶

- **Pre-market Profile-building Phase (4-6 weeks).** HRC assignments officers initiated this by telling participating officers that they'd receive their assignment through Green Pages.⁷ This briefing included a talent management overview and

⁵ Pilots were also conducted with Strategist (2 pilots), and Adjutant General (1 pilot) officers, but engineer officers composed the bulk of Green pages pilots. In total, 870 officers were assigned during Green Pages piloting.

⁶ The pilot format was consistent across all pilots regardless of rank.

⁷ See Appendix 4 for briefing and assignment tools used by assignment officers.

instructions for building individual profiles. On the Green Pages website, all participating officers were welcomed to the pilot by an informational video featuring LTG (R) Van Antwerp (a Green Pages concept white paper was also available). Meanwhile, participating unit strength managers were told that they'd be notified of newly assigned officers via Green Pages. They were also provided with instructions on how to create detailed unit and job profiles.⁸ The purpose of the unit and job profiles was to provide detailed information to participating officers searching for their next assignments. During this phase, the market was not yet open and no information exchange occurred between units and officers as they could not yet view the other side of the market.

- **Market Phase (2-6 weeks).** Following the pre-market phase, officers and unit strength managers received notification that the Green Pages market was “open” for interaction. During this time, officers could view open assignments and unit profiles before entering their top five assignment preferences. They could also reorder their top five assignment preferences. Whenever officers indicated a preference for a specific assignment, the respective unit received notification through the Green Pages interface. Although the unit could not see how the officer had ranked it (1-5), it could see that the officer was interested. Likewise, units could view all officers available for assignment and rank order their preferences for each open position, although not until their unit profile was at least 50% complete. Units could also update their “preference list” throughout the process. A unit’s preferred officer list was proportionate to the number of vacancies it had to fill. For example, if the unit was to receive only one officer, it could select up to five officers. The larger the vacancy list, the larger the corresponding preference list.
- **Post-market Assignment Phase.** After the market “closed,” HRC assignments officers used the information revealed in Green Pages to make assignments. As Green Pages is an information environment and *not* a transactional one, no matching algorithm was used. As always, assignments officers made all assignment decisions, but with better information technology to assist them. For example, a

⁸ See Appendix 2 for more details on this process.

spreadsheet-like matrix combined officer and unit preferences (and rationale) so that assignments officers could review them holistically. Tools such as this give HRC information dominance during the assignment process. After finalizing assignments and transferring them into TOPMIS (HRC orders system), assignments officers posted the assignment results to Green Pages, where officers had to log in to view their final assignment. Once logged in, they were instructed to complete a final Green Pages survey before receiving their assignment. Most officers received their assignment result immediately after completing the survey.⁹

FINDINGS

Each pilot iteration was designed to capture as much information as possible about the way in which market incentives affected supply and demand behavior. We collected data from treatment and control groups, as well as from pre- and post-treatment phases of the market. Our findings were as follows:

MAIN FINDING: Green Pages reveals an abundance of granular & accurate talent information.

ADDITIONAL FINDINGS:

- 1. Officers and units have heterogeneous preferences.**
- 2. “Supply” is more responsive to assignment market incentives than “Demand.”**
- 3. Officer and unit preferences changed after entering the market.**
- 4. Assignment satisfaction increased, in large part because preferences changed.**
- 5. Officers want a greater say in the assignment process and want to use their talents.**
- 6. Assignments officers had more time & information to improve talent matches.**

Officers had a strong incentive to build a robust personal profile, as participating units would later indicate their officer preferences based upon those profiles. In addition to providing new information, officers frequently identified errors in their top-fed data. Initially outside the scope of piloting, it became obvious that Green Pages had the potential to

⁹ Some field grade assignment officers thought it more appropriate to notify officers of their assignments by telephone. This occurred rarely, however.

improve the “official” data accuracy, and for two reasons. First, officers can easily view official data in the Green Pages web interface. Second, Green Pages places that data within the context of a meaningful outcome – a preferred assignment. It was clear to pilot participants that inaccurate official data could negatively affect their assignments. During one pilot iteration, 50% of officers indicated that at least two data elements from their top-fed official data were incorrect, with 90% of the errors having direct implications for officer assignments. As we reviewed reported errors, much of it had been wrong for quite some time. Now officers now had an incentive to correct the information at their local personnel services action center.

THE “SUPPLY” SIDE

To illustrate how officers used Green Pages to both review official data and provide new data, several screenshots follow. In the personal information section, “CPT Jordan’s” top-fed data from the TAPDB (Total Army Personnel Database) is shown in grey.¹⁰ He now has an incentive to update his religious preference, number of dependents, contact information, etc.

Individual Officer Profile: CPT Manuel Jordan

The screenshot displays the Green Pages web interface for CPT Manuel Jordan. At the top, a navigation bar contains tabs for Home, My Profile, My Assignments, People, Jobs, Answers, Strength Mgmt, Mail, FAQ, Admin, and HRC. Below this is a search bar with a 'Search People' dropdown and 'Search' and 'Advanced Search' buttons. A 'Message Center' notification indicates 'You have 0 new message(s)'. The main profile area for CPT Manuel Jordan has three tabs: 'Personal Information' (selected), 'Assignment Considerations', and 'Assignment Preferences'. Below the tabs are links for 'Print PDF', 'Expand All', and 'Collapse All'. The 'Basic Information' section features a photo of CPT Jordan and two columns of data. The 'Basic Information' column includes: Full Name: CPT Manuel Jordan; Service: ARMY; Control Branch: EN; Clearance: SEC; Last PCS: 2011-06-17; Dependents: 0; Race: Other; Gender: Male; Religious Preference: Unknown. The 'Contact Information' column includes: Phone (H): [redacted]; Phone (W): [redacted]; Address (H): 123 Key West Drive #18, Miami, FL 33131; Address (W): SMITH BARRACKS, MO; Email: manuel.jordan@us.army.mil; DSN: [redacted]. Below this is a 'Current Assignment' table with columns for Date, Position, Organization, and Location. The table shows a current assignment as 'ECCS STUDENT' at 'SMITH BARRACKSGM' starting on '2010-12-06'. To the right of the profile, there are sections for 'My Saved Jobs' (listing locations like CP ZAMA, GALVESTON, TX, SAVANNAH, GA, FT WORTH, TX, CONCORD, MA, KANSAS CITY, MO), 'My Chain of Command', and 'My Personnel Links'.

¹⁰ While “CPT Jordan” is a fictional amalgam, all information contained in these screenshots comes from *actual* Green Pages entries made by officers participating in the pilot. We’ve created CPT Jordan to demonstrate system capabilities while protecting user information and anonymity.

Directly below his personal information, the officer makes a free text “current status” entry, which is keyword searchable:

? Current Status

Student at Engineer Captains Career Course class 02-11

Last Updated: 2011-02-09 10:56:42





Scrolling downward, the captain provides a professional summary of his unique skills, interests, and career aspirations. This section routinely reveals invaluable talents previously unknown to the Army. In our example, CPT Jordan mentions his prior enlisted service, official information that currently is lost when NCOs transition to officer service. He describes his overseas service in Iraq and also mentions heritage language skills the Army was unaware of, all of which is also keyword searchable in Green Pages:

? Summary

Prior to commissioning, I was an E-5 with a 38B (Civil Affairs) MOS. My first duty station was with the 84th EN BN out of Schofield Barracks, HI, where I served as a Platoon Leader for 19 months. During my time as a PL, I served in the 561st EN CO (Horizontal) and deployed to Iraq for 13 months in the Diyala and Salah Ad Din provinces. After my time as a PL, I worked in the US Army, Pacific Contingency Command Post with the Future Operations section as the Engineer Planner. I am a big sports fan and especially enjoy watching my Florida Gators play football, a fan of Crossfit and working out in general. I am also fluent in Spanish and Portuguese. My goal is to command a Sapper Company and deploy to Afghanistan in the near future.

Next, CPT Jordan describes his officer “Experience.” This section is initially populated with top-fed data and resembles the bottom of a standard ORB. It tells us nothing about what CPT Jordan actually did as a platoon leader. By clicking on the “Details” icon, however, the officer can provide detailed information about specific accomplishments and experiences:

? Experience

When	Position	Organization	Location	Description
2009-09-21	ENGINEER PLANNER	HHC OCP HQ USA PAC	FT SHAFTER, HI, FN	 Details
2009-06-29	PLATOON LEADER	EN CO	SCHOFIELD, HI, FN	 Details
2008-05-28	PLATOON LEADER	EN CO	IRAQ, IZ, FN	 Details
2007-11-22	PLATOON LEADER	EN CO	SCHOFIELD, HI, FN	 Details

EXPERIENCE DESCRIPTION

Platoon Leader for a transformed horizontal construction platoon of 38 soldiers forward deployed in support of Operation Iraqi Freedom 08-10. Responsible for executing Crater repair, culvert denial, route sanitation along Corps MSRs and ASRs, and constructing patrol bases, joint security stations and combat outposts in the Salah ad din and Diyala provinces. Acts as liaison with the 5th Iraqi army engineer regiment and the Iraqi civil service corps and to increase their capability through teamwork resourcing and training. Responsible for the safety and well being of all assigned soldiers and their families. Maintains readiness and accountability of over 150 end items and vehicles valued at over \$7 million; plans resources and executes all missions safely. Sanitized numerous kilometers alongside ASRs and MSRs with the use of a Ground Torch System.

The Army now sees the critical *engineering skills* he used and the specific *engineer tasks* he accomplished while in this position. Again, a keyword search would reveal CPT Jordan to a commander looking for a *liaison* or perhaps an officer who has used the *Ground Torch System*. After describing his experience, CPT Jordan scrolls down to review his official military and civilian education data:

Education

Military Education Civilian Education Non-Degree Education

Military Education Level: Commissioned Officer Basic Course (MEL 1)
Military Education Overview:

When	Course
05-2007	Officer Candidate
08-2007	Basic Officer Leader Course
11-2007	Engineer Officer Basic
07-2010	Joint Engineer Operations
11-2010	Airborne
12-2010	Pathfinder
06-2011	Engineer Officer Advanced
12-2011	Combat Lifesavers Course

Education

Military Education Civilian Education Non-Degree Education

Civilian Education Level: Baccalaureate Degree
Civilian Education Overview:

When	School	Degree	Major/Concentration	Action
2006	University Of Florida, FL	Bachelor Of Arts	Arts Liberal	Details

Much like the “experience” section, CPT Jordan can tell us more about his civilian educational experience by clicking on the “details” tab for his University of Florida degree (notice that the top-fed official data, above, says nothing more than “liberal arts” degree). The captain then adds “non-degree education” not found in the TAPDB:

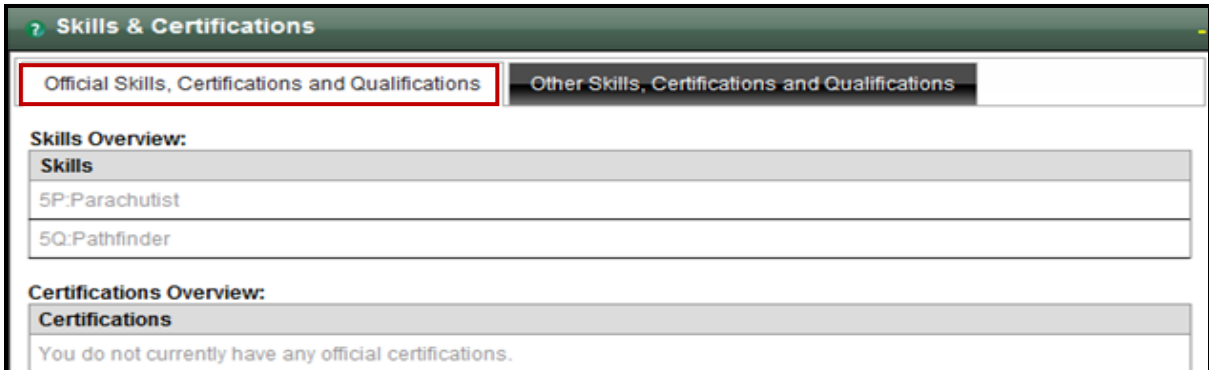
Education

Military Education Civilian Education Non-Degree Education

When	School	Course	Action
2007-11-28 - 2008-05-09	FEMA	Professional Development Series	Details
2002-04-01 - 2002-09-30	Professional Association of Diving Instructors	Rescue Diver	Details
2005-04-01 - 2005-09-01	JFK Special Warfare Center and School	French Language	Details

Not only do officers continually invest in education on their own time, but as we can see, even Army training or education is often missing from official records and can be recaptured here (again, these examples are *actual* entries made by officers during piloting).

The sections following education provide CPT Jordan with more opportunities to supplement his official record. The first “Skills and Certifications” tab presents TAPDB data:



Skills & Certifications

Official Skills, Certifications and Qualifications | Other Skills, Certifications and Qualifications

Skills Overview:

Skills

- 5P:Parachutist
- 5Q:Pathfinder

Certifications Overview:

Certifications

You do not currently have any official certifications.

The captain then enters “other skills, certifications and qualifications” not found in the TAPDB:



Skills & Certifications

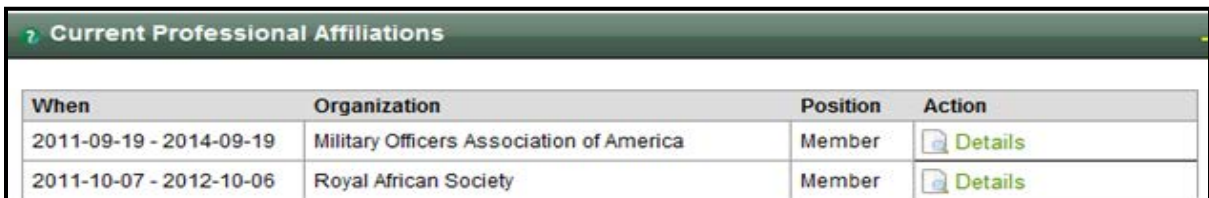
Official Skills, Certifications and Qualifications | Other Skills, Certifications and Qualifications

Skills Overview:

Skills

- Air Crew Member
- Aircraft Mechanic and Service Technician
- Mate- Ship, Boat, and Barge
- Military Officer Special and Tactical Operations Leaders/Manager, All Other
- Motorboat Operator
- Pharmacy Technician
- Registered Nurse

Notice that he’s augmented his record with numerous additional talents, to include being a Registered Nurse. CPT Jordan is also a member of the MOAA and the Royal African Society and can provide details about these affiliations:



Current Professional Affiliations

When	Organization	Position	Action
2011-09-19 - 2014-09-19	Military Officers Association of America	Member	Details
2011-10-07 - 2012-10-06	Royal African Society	Member	Details

Scrolling down still further, the “Links” section allows CPT Jordan to post web addresses to items of professional interest. In this example, he’s included a company deployment video:

Link	Description	Action
http://www.youtube.com/watch?v=5-6kbpo_tbm	Video of my company just before and after my departure from theatre.	Details

Self-help icons (the green “question mark”) are located in each header bar. If an officer is unsure what entry to make, “pop-up” guidance is just a mouse-click away (see below):

In the next two sections, officers are able to enter languages and travel experiences not found in their official file, which is quite common. For example, some officers possess deep heritage language skills but haven’t taken a Defense Language Proficiency Test (DLPT). Knowing the source of language proficiency (school versus heritage) is particularly useful, as heritage speakers often possess deeper cultural fluency, even if their language skills are less polished. In CPT Jordan’s case, notice that top-fed data under “official languages” is blank:

Languages				
Official Languages		Other Languages		View Language Proficiency Descriptions
Language	Listening	Reading	Speaking	DLPT Year/Month

However, in the “other languages” tab he adds the Spanish learned at home, the Portuguese learned while living abroad, and some elementary French proficiency from a civilian course:

Languages				
Official Languages		Other Languages		View Language Proficiency Descriptions
Language	Proficiency		Source	
Spanish	5 - Functionally Native Proficiency		Home Environment	
Portuguese-Brazilian	3+ - General Professional Proficiency Plus		Foreign Residence	
French	1+ - Elementary Proficiency Plus		Civilian School Course	

CPT Jordan's user-provided travel information is similarly more robust than his official records indicate. The "Official Travel" tab captures his short tours, long tours and deployments, but no official TDY or leisure travel:

When	Country	Reason for Travel	Operation	Action
20031201 TO 20040826	Iraq			Details
20080528 TO 20090628	Iraq			Details

CPT Jordan quickly adds four Army TDYs to supplement his official data, revealing travel to three additional countries (Dominican Republic, Japan, and Thailand):

When	Country	Reason for Travel	Notes / Details	Action
2006-03-20 TO 2006-04-03	Dominican Republic	Official - TDY	Part of the Civil Affairs Team for CJTF-Barahona, coordinated MEDRETEs, assisted with Commander with the local populace and conducted atmospheric surveillance.	Details
2009-11-29 TO 2008-12-16	Japan (Includes Okinawa)	Official - TDY	Bilateral exercise, Operation Yama Sakura 57 with the Northern Army, JGSDF in the Island of Hokkaido working in the G-3/5 section	Details
2010-01-18 TO 2010-02-11	Thailand	Official - TDY	Operation Cobra Gold in Pattaya, Thailand. Worked in the JTF J-5 section for this Multi-National Warfighting Exercise	Details
2010-04-11 TO 2010-04-17	Japan (Includes Okinawa)	Official - TDY	Initial Planning Conference for Operation Yama Sakura 59, a planning conference conducted with the Western Army, JGSDF in the Island of Kyushu.	Details

Consider how useful this information is to future contingency planning. Imagine, for example, that the Army was responding to a natural disaster in Japan. Coupled with his engineer acumen and nursing talents, CPT Jordan might make an ideal addition to a disaster response team.

To complete his profile, CPT Jordan must still enter “Community / Volunteer Work” experiences, “Interests & Hobbies,” and “Chain of Command / References.” Many officers volunteer with community, educational and charitable organizations, extending their many talents while doing so:

Community / Volunteer Work		
When	Organization	Action
2011-01-01 - 2011-09-17	Personal project	Details
2002-01-01 - 2003-03-31	Ishpeming Ski Club	Details
2001-01-01 - 2001-12-31	107th Engineer BN Association	Details
2011-10-10 -	dAdventure Expedition & Scientific Club	Details

CPT Jordan’s volunteer work has the potential to increase his Army productivity, just as his hobbies can help foster friendships and collaborative relationships:

Interests & Hobbies
Interest
Baseball
Football
Hiking
Travel

Finally, providing a list of past raters and senior raters allows other leaders to reach out to these references when wanting to learn more about an officer’s unique talents, or to ask follow-up questions about user-fed entries:¹¹

Chain of Command/References			
Rater	Rated Position	From	To
MAJ Carl Vigna	G33 Operations Officer	2009-02-01	2009-05-15
MAJ David Smith	G33 Operations Officer	2008-05-16	2009-01-31
Senior Rater	Rated Position	From	To
LTC Mike Teague	G33 Operations Officer	2009-12-01	2010-06-20
LTC Eric Gallagher	G33 Operations Officer	2008-05-15	2009-11-30

¹¹ For example, a commander interested in CPT Jordan’s performance in Iraq could email his past rater or senior rater by clicking on their names. NOTE: Actual Rater and Senior Rater names have been masked in this sample profile.

This sample profile reveals how easily officers can identify errors in their official data and embellish it with an incredible amount of information revealing their full talents. Clearly, the Army is seeing just a fraction of the productive capabilities resident in the Officer Corps, but as the Green Pages pilot has demonstrated, the right incentives and a user-friendly web application can easily change that.

THE “DEMAND” SIDE

Just as officer talents are largely hidden from the Army, so too are the demands for those talents across the force. To remedy this, units participating in the pilot were asked to build detailed organizational and job profiles to attract the right officer talent towards their unique work requirements. After logging into Green Pages, strength managers construct a “unit profile” page to provide an overview of their organization:

Unit Profile: 555th Engineer Brigade¹²

The screenshot displays the Green Pages web application interface. At the top, there is a navigation bar with tabs: Home, My Profile, My Assignments, People, Jobs, Answers, Strength Mgmt, Mail, FAQ, Admin, and HRC. Below the navigation bar is a search bar with a dropdown menu for "Search People" and buttons for "Search" and "Advanced Search". To the right of the search bar is a message center notification that says "Message Center: You have 0 new messa".

The main content area is titled "Please select a unit available to you:" and shows a dropdown menu with "WAZTAA" selected and a "SELECT" button. Below this, there are three tabs: "Unit & Job Information", "Team Management", and "Batch Management". The "Unit & Job Information" tab is active, showing the unit profile for the 555th Engineer Brigade.

The unit profile section is titled "Unit Information" and includes the following details:

- Point of Contact:**
 - Name: Tiffany Zuzek
 - Email: tiffany.zuzek@us.army.mil
 - Organization URL: [View Chain of Command](#)
- Post Facilities / Services:** On Post Housing Available
- EFMP Webpage Link:**
- Post Webpage Link:**

The unit logo is displayed on the left, and the text "555TH EN BDE" is shown below it. The "Unit Information" section is updated on 2012-01-10 17:45:12 and has an "Edit" button.

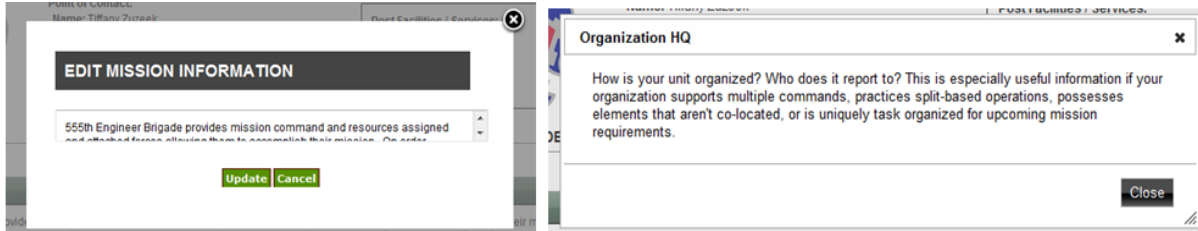
Below the "Unit Information" section are two other sections:

- Mission:** 555th Engineer Brigade provides mission command and resources assigned and attached forces allowing them to accomplish their mission. On order, deploys to provide mission command of full-spectrum engineer operations in support of Army, Joint, or Combined Joint Task Forces.
- Organization and Higher Headquarters:** The 555th Engineer Brigade has battalions located on three different installations. 1st Engineer Battalion specializes in Combat Effects and is located at Fort Riley, Kansas. 4th Engineer Battalion specializes in Combat Effects and 52nd Engineer Battalion specializes in Constructions. Both are located at Fort Carson Colorado. 14th Engineer Battalion specializes in Combat Effects and 864th Engineer Battalion specializes in Construction Effects. Along with 555 Engineer Brigade Headquarters, 14th and 864th Engineer Battalions are located at JBLM, Washington.

Each section has an "Edit" button and a "+" icon.

¹² This is an actual unit profile available in Green Pages.

Strength managers click “Edit” to generate a pop-up text-entry window like the samples below. The left image presents the 555 profile and the right image the help text:



After creating the general unit overview, additional fields allow units to specify command queues, deployment timelines, etc. This information helps shape officer assignment preferences:

Company Grade Officer Information Last Updated: 2012-01-10 13:09:04 [Edit](#) | +/-

Incoming Company Grade officers fill brigade staff positions in either the general engineering section or the S3 shop prior to moving to 864th Engineer Battalion or 14th Engineer Battalion for command. There will be opportunities to command 12-18 months after arrival on JBLM. Captains can expect to be in command for 12-18 months.

Field Grade Officer Information Last Updated: 2012-01-10 17:45:12 [Edit](#) | +/-

Incoming Field Grade Officers will initially serve on Brigade staff in the S3 section. Officers will then be assigned to a battalion, slotted as the S3 for 12 months and then move to the XO position for another 12 months.

Additional Unit Information [Edit](#) | +/-

Battalions and companies may deploy separately.

Scrolling down, strength managers can see every authorized officer position in their unit. The following sample is from the Corps of Engineers’ Huntington District:

Job Information							
Found 10 Matching Job(s):							
PARA:	LINE:	Filter By Grade:	All Grades	Branch:	All Branches	Refine	
Status	UIC/ Para-Line	Position Title	Unit	Location	Grade	Availability Date	Branch
REQ ATTN	W2SM01 101-05	OPERATIONS OFFICER	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O3		EN
REQ ATTN	W2SM01 101-06	OPERATIONS OFFICER	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O3		EN
REQ ATTN	W2SM01 101-07	OPERATIONS OFFICER	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O3		EN
REQ ATTN	W2SM01 101-08	OPERATIONS OFFICER	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O3		EN
REQ ATTN	W2SM01 101-09	OPERATIONS OFFICER	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O3		EN
REQ ATTN	W2SM01 101-10	OPERATIONS OFFICER	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O3		EN
CURRENT	W2SM01 101-01	DIST CDR-HUNTINGTON	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O6	2012-07-20	EN
CURRENT	W2SM01 101-02	DEP DIST CDR-HUNTINGT	W2SM ENDIST HUNTINGTON	HUNTINGTON, WV	O5	2012-06-11	EN

During piloting, units build detailed position (job) profiles only for vacancies pending fill. For example, of the eight positions above, perhaps just two need fill. In that case, the Huntington district builds two profiles only. Since, under current HRC procedures, assignment officers assign to units and not jobs, the unit commander has the discretion to advertise the actual job where the officer will serve. As with officers, all profile information entered by units (including free text) is searchable.

To build a profile, strength managers click on a “position title” (highlighted in red, above), which prompts this screen:

Job Information
Job Post Edit | Status: ACTIVE

Position Requirements

UIC:	PARA:	LINE:	GRADE:	JOB TITLE:	FUNAC:	BRANCH:	REQ#:	AUTH#:
W2SM01	101	02	05	DEP DIST CDR-HUNTINGT	EN	EN	1	1

LOCATION: HUNTINGTON, WV MACOM: US Army Corps Of Engineers (COE)

Required Military Skills (ASI): NONE

Required Fields

Availability Date: 2012-06-11 Point of Contact Email: carolyn.b.plants@us.army.mil

Job Type: PCS Clearance Requirements: Secret Male Officer Required: No Worldwide Deployable: Yes

Position Description: Deputy Commander, U.S. Army Corps of Engineers, Huntington District, a multi-disciplined DA centrally-selected command. Responsible for leading, motivating, and key decision making for a 900+ military and civilian person civil works District. Executes an annual \$225 million civil works program and support for others within a five state area. Manage federal programs for water resource development including the operations and maintenance of nine lock and dams, 35 flood damage reduction dams, multiple local protection projects, national regulatory functions, emergency

* Indicates Required Field

As we can see, “position requirements” (in grey text) are top-fed from an authorization document and say *very* little about the talents demanded by the job. Green Pages, however, provides additional fields to rectify this, in particular, a position description describing exactly what the officer’s duties will entail. Scrolling downward, additional granularity can be added in “desired skills and certifications.” Notice the talents being sought (highlighted on the next page):

Desired Skills and Certifications +/-

Military Education Level
 Command And Staff College (MEL 4)

Civilian Education Level
 Baccalaureate Degree

Desired Military Skills (ASI) [Edit](#)

Training Development
 Equal Opportunity Advisor
 Public Facilities Officer
 Public Communications Officer
 Installation Management (IM)

Professional Certifications [Edit](#)

Certified Professional Engineer
 Engineer In Training
 PE Civil
 Certified Project Manager

Previous Experience Desired [Edit](#)

Engineer Staff Officer
 General Engineer
 Property Control Officer
 Director Of Public Works
 Deputy District CDR
 Civil Engineer
 Chief Of Staff
 Area Engineer
 Battalion XO

Academic Discipline [Edit](#)

Construction Management
 Civil Engineering (Construction)
 Engineering Administration
 Engineering General
 Engineering Management
 Civil Engineering

Language Proficiency
 Select Desired Languages

Other desired skills/experience:

National Incident Management System
 Emergency Management
 ESF#3 (Public Works)
 Personnel Management
 Fiscal Law
 Logistics Management & Property Accountability
 Command Supply Discipline
 Equal Opportunity Advisor
 Training Management & Coordination

Additional Information:

This information helps officers determine whether they are a suitable match for the position.¹³

¹³ Junior officers can also use this information. It signals the qualifications, certifications and experiences that they should seek to become a strong candidate for this job in the future.

OPENING THE MARKET: SUPPLY AND DEMAND MEET

Once the market phase opens, officers can view all participating units via the “my assignments” tab. To view available positions, he or she clicks on a preferred unit UIC.

The screenshot shows the Green Pages U.S. Army portal. The header includes the Green Pages logo, a beta symbol, and the U.S. Army logo. The navigation menu includes Home, My Profile, My Assignments, People, Jobs, My Files, Answers, Strength Mgmt, Mail, FAQ, and Admin. A search bar is present with the text 'Search People' and a 'Search' button. A message center notification states 'You have 0 new message(s)'. The main content area is titled 'My Assignments' and contains a table with the following data:

UIC	Unit Name	Organization	Location	Count
WAPGAA	0001 AR HHC 02 HBCT	1ST ARMORED DIVISION	FT BLISS, TX	3
WAUKAA	0018 HQ CO HHC ABN CORPS	FORCES COMMAND (OTHERS)	FT BRAGG, NC	1
WJLMAA	0082 IN HQ 04 HHC IBCT ABN	82D AIRBORNE DIVISION	FT BRAGG, NC	1
WAR1AA	0101 AR DIV DIV HQ & HQ BN	101ST AIRBORNE DIVISION (AIR ASSAULT)	FT CAMPBELL, KY	1
WAJ2AA	0004 EN BN ENG BN	FORCES COMMAND (OTHERS)	FT CARSON, CO	2
WGKEAA	0010 AR DIV DIV HQ & HQ BN	10TH MOUNTAIN DIVISION (LIGHT INFANTRY)	FT DRUM, NY	2
WAZQAA	0036 EN HQ ENG BDE	FORCES COMMAND (OTHERS)	FT HOOD, TX	1
W2MK05	W2MK CO A VICTORY SPT BN	BASIC COMBAT TRAINING CENTER OF EXCELLENCE	FT JACKSON, SC	4
W4K702	W4K7 HHC 1ST EN BRIGADE PP	MANEUVER SUPPORT CENTER OF EXCELLENCE	FT LEONARD WOOD, MO	2
W4K9ZE	W4K9 2-10 INF BN	MANEUVER SUPPORT CENTER OF EXCELLENCE	FT LEONARD WOOD, MO	2
W4K9ZG	W4K9 1-48TH INF BN	MANEUVER SUPPORT CENTER OF EXCELLENCE	FT LEONARD WOOD, MO	1
WJS5AA	0004 ME HQ CBT SPT BDE	FORCES COMMAND (OTHERS)	FT LEONARD WOOD, MO	1
WAZTAA	0555 EN HQ ENG BDE	FORCES COMMAND (OTHERS)	FT LEWIS, WA	4

The officer then clicks a “position title” to view the job profile created by the unit (in this example, at Fort Jackson):

The screenshot shows the Green Pages U.S. Army portal. The header includes the Green Pages logo, a beta symbol, and the U.S. Army logo. The navigation menu includes Home, My Profile, My Assignments, People, Jobs, My Files, Answers, Strength Mgmt, Mail, FAQ, and Admin. A search bar is present with the text 'Search People' and a 'Search' button. A message center notification states 'You have 0 new message(s)'. The main content area is titled 'My Assignments' and contains the following information:

Branch Manager Notes: This is an O2A assignment with a TRADOC unit. Command queue is less than 6 months.
[Add/Edit UIC Note](#)

Unit Strength Manager Notes: Test
[Add/Edit UIC Note](#)

Available Positions: [Return to Assignments](#)

Position Title	Grade	Availability Date	Organization or Unit	Location	Point of Contact	Action
CDR CO A	O3	2010-06-30	W0G4 HQ CO A 02 BN 39 INF	FT JACKSON, SC	ricky.earlewine@us.army.mil	
CDR CO E	O3	2010-06-30	W0G4 CO E 3BN 34INF	FT JACKSON, SC	ricky.earlewine@us.army.mil	

Your Top 5 Assignment Preferences: [Save](#)


- None
- None
- None
- None
- None

You are not currently placed in any job slots.

Clicking “CDR, CO A” activates the following pop-up (which the officer can either add to their top five assignment preferences or review and save for future reference):

Job Details: close

Save Job

 **Position Title:** CDR CO A

Unit or Organization: W0G4 HQ CO A 02 BN 39 INF
LOCATION: FT JACKSON, SC
AVAILABILITY DATE: 2010-06-30

Point of Contact: ricky.earlewine@us.army.mil
Organization URL: <http://www.army.mil/info/organization/jackson/>

UIC: W0G423
PARA: 502A
LINE: 01
GRADE: O3

JOB TYPE: PCS
FUNAC: CI
BRANCH: CI
REQ#: 1
AUTH#: 1
MACOM: US Army Training And Doctrine Command (TRADOC)

Job Description

Company Commander of an Initial Entry Training (IET) company.

Organization Description and Mission

2-39 IN BN is one of nine Initial Entry Training (IET) BNs on Fort Jackson, SC. Each BN's mission is to train the Army's newest Soldiers in basic combat training prior to their follow-on AIT. The 18 Cadre manned company trains 240 Basic Training Soldiers.

MAIN FINDING: CONCLUSIONS

As we indicated on page 11, *Green Pages reveals accurate and granular information that will make true officer talent management possible*. Nineteen pilot iterations validated this main finding. Officers will build strong résumés to compete for the jobs they want. Those résumés reveal previously hidden professional certifications, as well as language and cultural fluencies, all available at no additional cost to the Army. Even rough cost estimates illustrate the power of these findings. For example, 131 officers revealed engineer certifications which would conservatively cost over \$28 million to produce.¹⁴ Additionally, many officers added specific details to their certified “Professional Engineer” credentials.

¹⁴ Costs were estimated by a licensed Professional Engineer (PE) in the Civil and Mechanical Engineering Department (CME), United States Military Academy, West Point, NY. The 131 officers were out of the total Engineer population of 748 officers who received assignments within Green Pages.

Engineer Certification Data Revealed by Green Pages

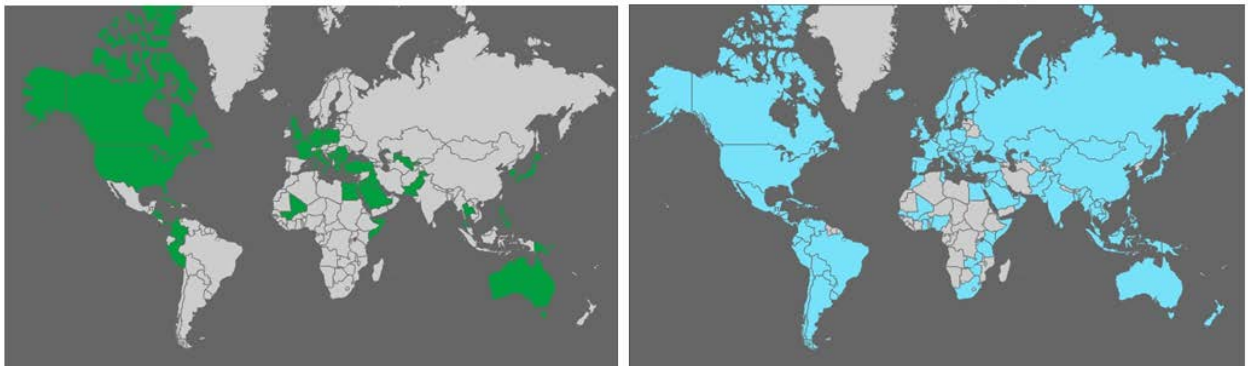
TAPDB Data	Green Pages Data
Certified Professional Engineer	Automotive Service Excellence
Certified Project Manager	Certified Facility Manager
Engineer In Training	Certified Professional Engineer
	Certified Project Manager
	Engineer In Training
	PE Civil
	PE Environmental
	Professional Geologist

As for newly revealed language and cultural fluencies, consider the following chart. As the left-hand map shows, according to official Army records (TAPDB), the collective cultural fluency of all pilot participants spanned roughly 28% of the world. Green Pages revealed, however, that those same officers actually possess cultural fluencies spanning 72% of the world.

Officer Travel Experiences Revealed by Green Pages

TAPDB Data: 28% of Countries

TAPDB + GP Data: 72% of Countries



This information was revealed not only because of the pilot’s powerful incentives, but also because Green Pages actively solicited the information, *teaching* officers that the fullness of their life experiences creates productive talents that can enhance their Army

careers. As the next chart illustrates, those life experiences virtually doubled the known language proficiencies for officers in the pilots.

GP Provides Visibility on Officer Languages

TAPDB Data	TAPDB & Green Pages Data
Arabic (Egyptian, Modern Standard)	Achinese
Chinese (Mandarin, Cantonese)	Akan
Dari (Afghan Persian)	Albanian
French	Arabic (Classical, Egyptian, Gulf-Iraqi, Jordanian, Modern Standard)
German	Bulgarian
Hausa	Chinese (Mandarin, Cantonese)
Hebrew (Modern)	Dari (Afghan Persian)
Hindi	Dutch
Italian	Finnish
Korean	French
Polish	German (Standard, Bavarian)
Portugese (Brazilian)	Hausa
Punjabi	Hebrew (Modern)
Romanian (Includes Moldavian)	Hindi
Russian	Italian
Serbo-Croatian (Includes Croatian and Serbian)	Japanese
Spanish (N American, Castilian)	Khmer (Cambodian)
Tagalog	Korean
Urdu	Latin
Vietnamese (Saigon)	Maltese
	Polish
	Portugese (Standard, Brazilian)
	Punjabi
	Romanian (Includes Moldavian)
	Russian
	Samoan
	Serbo-Croatian (Includes Croatian and Serbian)
	Spanish (N American, Caribbean, Castilian)
	Tagalog
	Turkish
	Ukranian
	Urdu
	Vietnamese (Saigon)
	Yiddish
	Yoruba

The time and cost entailed in gaining such capabilities would be daunting, to say the least, but now the Army has saved those costs. It can instead leverage the investments others have made to create these talents. In a complex and uncertain global operating environment, these fluencies are particularly valuable, and often more powerful than those gained via formal study.¹⁵ For example, a number of officers have traveled to the Philippines not merely for leisure but because they are married to a Filipina, making their cultural connection far more

¹⁵ See Appendix 3 for an example user entry for additional languages and additional travel.

powerful. Green Pages can make these nuanced distinctions in a way no other Army data system can.

ADDITIONAL FINDINGS

In addition to proving that the Army can truly gain visibility over its talent supply and demand, the pilot revealed several supporting findings.

ADDITIONAL FINDING #1: Officers and units have heterogeneous preferences.

Green Pages revealed that individuals and units have widely varying preferences. Had this not been the case, if all units wanted the same few officers and vice versa, then Green Pages would have had little utility. Preference variability ties directly to granular, accurate data – the more there is, the more heterogeneous preferences become.¹⁶

For example, HRC reports that many assignment locations are traditionally a “tough sell” to officers (posts like Bliss, Drum, the CTCs, etc.). This is because officers condition their preferences upon one overriding factor – location. Once other information is known, however (the nature of the job, a unit’s interest in the officer, etc.) preferences shift, often dramatically. As a result, even “tough sell” assignments witnessed increased demand. Actual quotes from participating pilot officers demonstrate the different experiences being sought:

My previous experience has been in the 5th EN BN (C)(M). I was a platoon leader and executive officer in a Maneuver Augmentation Company (MAC). I enjoy being in Engineer Battalions and would prefer this over a BCT. **I enjoy having senior Engineer officers for mentorship and would like to return to that.** Also, this assignment has a 12-18 month command queue and I would like to spend some time on battalion staff, preferably in the S3 shop, before I take command.



CPT John Miller
wants [Schofield](#)

Training Soldiers is what I enjoy doing, and ever since I was a 2LT I wanted to have a bigger influence in the initial **Soldier development process.** I also enjoy a new challenge along with being able to contribute to the team.



CPT Diana Noll
wants [Jackson](#)

¹⁶ See Appendices 2 and 3 for an example breakdown of officer and unit preferences.

Conversely, there is no “one type” of officer being sought by units, which expressed interest in specific officers because of their unique talents.¹⁷ Consider these actual comments from units at various duty stations:

Schofield: “CPT Luke Lyle has an Engineering Degree and operational experience with a Sapper unit. Luke is a good fit for the BN. BN would prefer he attended Ranger School post ECCC in route to this assignment.”

Fort Drum: “CPT Terry Cook’s deployment experience and his International Studies Degree..”

Schofield: CPT Dudley has a great diversity of experience both in jobs and locations and a construction background which will help in a lot of respects.”

For the most part, neither officers nor units were “left on the bench” during piloting – the heterogeneity of talent supply and demand ensured this. In fact, fewer than 23% of units and 18% of officers went unrequested. This normally occurred only when the officer or unit in question failed to provide enough profile information to invite interest. The data show that officers who provided more information were in higher demand:

- On average, officers completing 90-100% of their profiles were selected 25% more frequently than officers who completed 0-60% of their profiles.
- As we discuss in Finding #2, this is a supply-driven market. The average unit participation rate (i.e.: completing any portion of a unit profile) across all pilots was low at only 59%. Higher unit participation rates would have also led to a lower incidence of non-selected units and would have allowed us to make conclusions about the impact of information on unit selection.

While officers exhibited heterogeneous assignment preferences, we did observe some preference determination trends. Across the pilot, *all* officers were mission focused, caring least about unit deployment schedules when seeking their next job. However, as the next chart reveals, field grade officers (a much higher percentage of which have multiple dependents) weighed family considerations more heavily than junior captains:

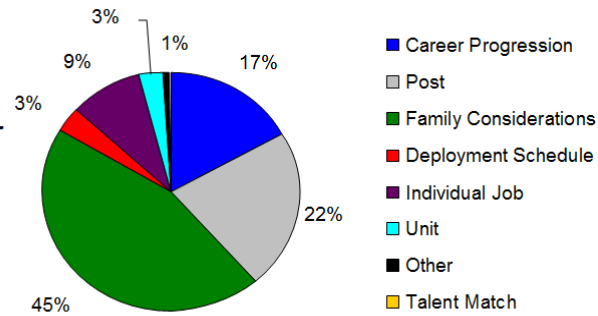
¹⁷ These are actual quotes from units - officer names have been changed.

Officers are Mission Focused

Field Grade Officers

Q: What is ***MOST*** important to you when looking for your next job assignment?

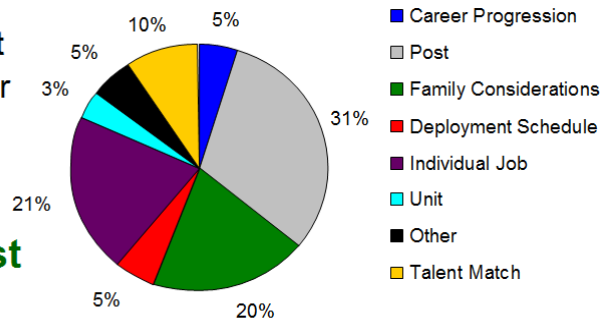
A: Family



Captains

Q: What is ***MOST*** important to you when looking for your next job assignment?

A: The Job or the Post



ADDITIONAL FINDING #2: “Supply” is more responsive to assignment market incentives than “Demand.”

The incentive for units to complete their profiles was less powerful than it was for officers. While officers uniformly began data entry after receiving an instructional email, units required similar notifications *and* a great deal of follow-up encouragement by phone or email. Post-pilot surveys indicate that while units received enough information about officers, at least 50% of officers felt that unit / job information was too sparse. As several officers reported:

- “Units did not have much info and most of the contacts were not correct.”
- “The biggest improvement will need to come from unit buy in. Units must understand more about the program and how it works.”
- “It seemed as if the units were either unaware of Green Pages or did not intend to use it or make an effort with it. I agree that units should have input into the assignments process, but the right emphasis has not been put on their participation.”

While most markets are demand driven, there are several explanations for why this talent market appeared chiefly supply driven. First, the next assignment means everything to an officer. It can affect career progression, job satisfaction, dependent well-being, educational attainment, etc. In contrast, units have much less at stake. If an inbound officer is a poor unit fit, there are dozens of other officers to pick up the slack.

Second, the uncertainty of a piloting environment decreases a unit's incentive to invest organizational energy in profile building and talent management. While an officer participates in the market only when in their personal reassignment window (a relatively rare occurrence), units were continuously in the market for new officers, demanding a sustained level of commitment.

Third, the high degree of personnel churn in Army units makes it difficult to motivate unit representatives to participate – many strength managers were too “short” to invest time in piloting a new management paradigm.

Fourth, a few unit leaders could not grasp the concept of (or need for) talent management. They are frankly the product of industrial era HR practices which promote an “interchangeable” officer paradigm. Their view: “send me any officer, any officer, and I’ll develop him or her appropriately – that’s what leaders do.” Cultural muscle memory makes such thinking difficult to change, particularly as commanders are successful officers and yet a product of industrial HR practices. The thinking: *‘Since the current system produced me, and as I’m a talented and dedicated officer, the current system must be good enough.’*

Lastly, piloting efforts focused almost exclusively on Engineers, often a low density career field in many non-engineer organizations. A unit strength manager in a maneuver BCT was often challenged to articulate Engineer-specific talent requirements.

During piloting, OEMA made continual refinements to redress low demand participation. First, we reached out to first line supervisors – the men or women who would receive officers from the pilot. While more difficult to identify and reach than unit strength managers, these officers were more powerfully motivated to select their next subordinates and worked with strength managers to populate unit and job profiles. Second, we devoted internal resources to evaluating unit participation and actively offered encouragement and support to units requiring it. A preferred solution, however, would be to teach talent management across the Officer Education System (OES). Such instruction, coupled with formal adoption of the

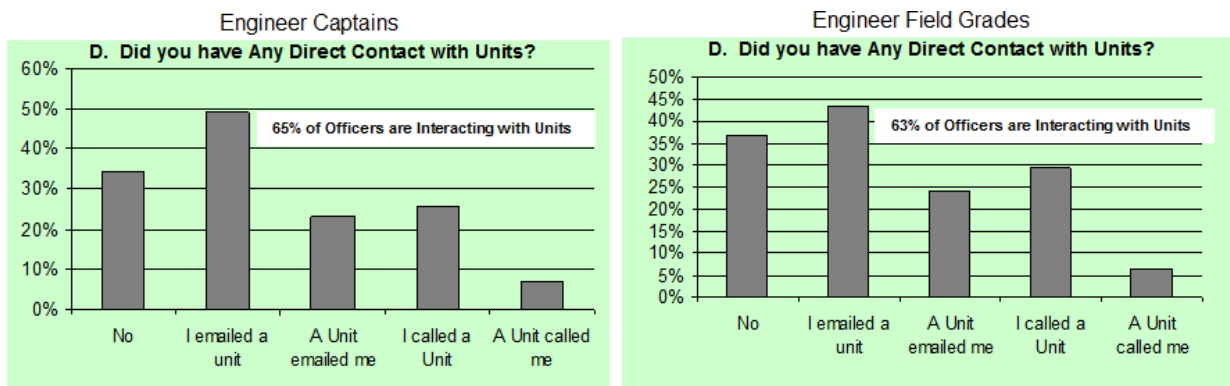
practices piloted via Green Pages, should create the change culture necessary to improve demand participation.¹⁸

ADDITIONAL FINDING #3: Officer and unit preferences changed after entering the market.

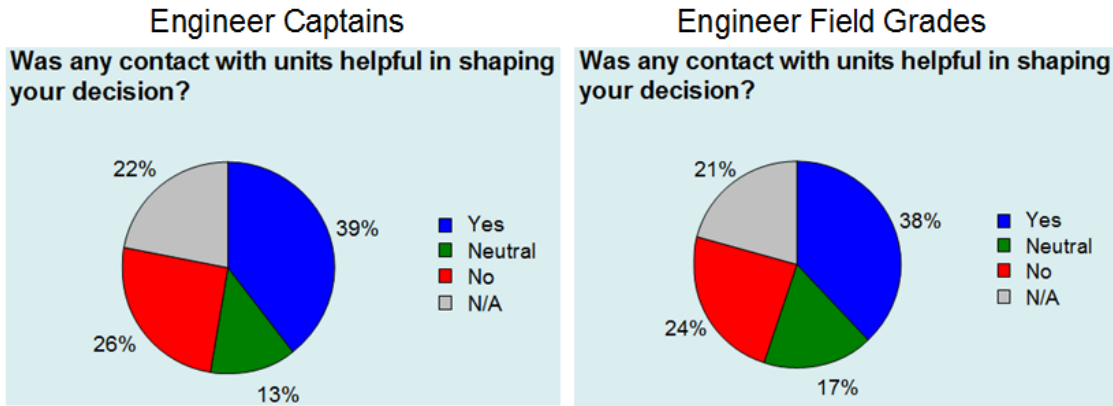
Officers must enter their top five assignment preferences in Green Pages before using its market-based assignment tools to build their profile or search for jobs. This allows us to capture their “pre-Green Pages” preferences. However, once the assignment market “opens” and officers begin interacting with units, preferences on both sides of the market begin to change. Officers are usually the first movers, quickly revising their preferences and contacting units for more information. Units are slower to express their preferences because of the reduced incentive we’ve already discussed. While some units make officer selections early, most do not. Unit activity normally rises within a week of the market closing deadline. This gives officers only a few days to react to unit preferences.

Throughout the market phase, communication between units and officers is largely officer-driven. Across the pilots, more than 63% of all officers reached out to units via phone or email. More than half of all officers reported that contact with units helped shape their final preferences.

Officer / Unit Interaction



¹⁸ See Appendix 2 for more information on unit participation and a discussion of the demand side of the talent market.



During the pilot, 49% of all officers changed their number one assignment preference after using Green Pages.¹⁹ Changes occurred for two main reasons. First, officers obtained more detailed information on unit and job requirements; and second, they became interested in units that were interested in them, *even if they had not previously considered that unit*. In other words, knowing where their skills were in demand (and where they were not) shaped officer preferences.

There is evidence that units also changed their officer preferences due to information found in Green Pages. Here’s one example:

Engineer Branch reported an instance where a brigade commander made a by-name-request for CPT Lee. The Engineer Assignment Officer asked the commander to express that preference in Green Pages and assured him that CPT Lee would be assigned to the brigade if possible. The commander entered Green Pages to request CPT Lee and discovered that nine other Engineer captains were interested in his brigade. As he reviewed their files, he found three other officers he thought would be a better match, thus listing CPT Lee as his fourth choice.

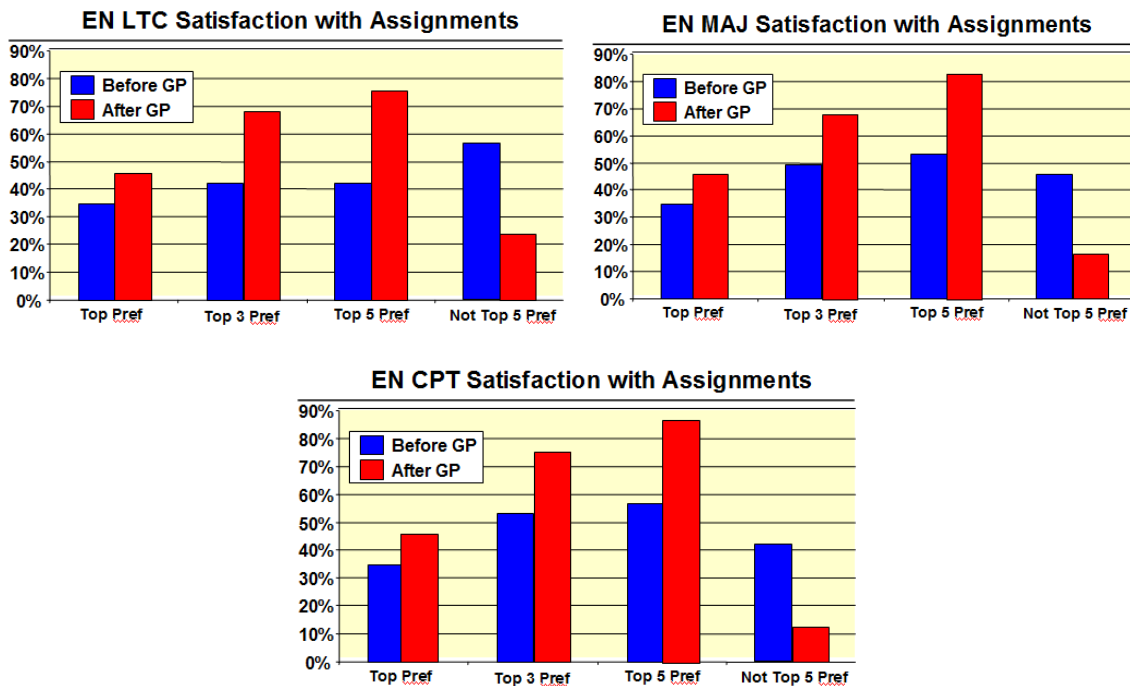
ADDITIONAL FINDING #4: Assignment satisfaction increased, in large part because preferences changed.

Green Pages talent matching increased engineer officer assignment satisfaction. On average, participating officers were about 34% more likely to receive their top assignment

¹⁹ This percentage is contingent upon the availability of an officer’s initial assignment preferences. For example, if an officer’s initial assignment preferences were unavailable in the pilot assignment slate, the officer *had* to change their preferences based on availability. We do NOT count such officers in the population who changed their initial preferences due to Green Pages.

preference via Green Pages versus the legacy assignment process.²⁰ It's important to note that this improvement is *not* due to the availability of more desirable assignments. Rather, it is a result of officers having better information about *existing* assignment opportunities, thus gaining a better sense of where they would fit. This often resulted in officers moving a third or fourth preference up to the top of their list. The charts below indicate the likelihood of officers receiving a top assignment preference after using Green Pages.²¹

Assignment Satisfaction by Rank



We also captured unit preferences and compared those to the actual officer they received. As the next figure indicates, on average roughly 45% of units received one of the top five officers they requested.²² This is a vast improvement over current practices, which give units no voice at all in the selection of their officers:

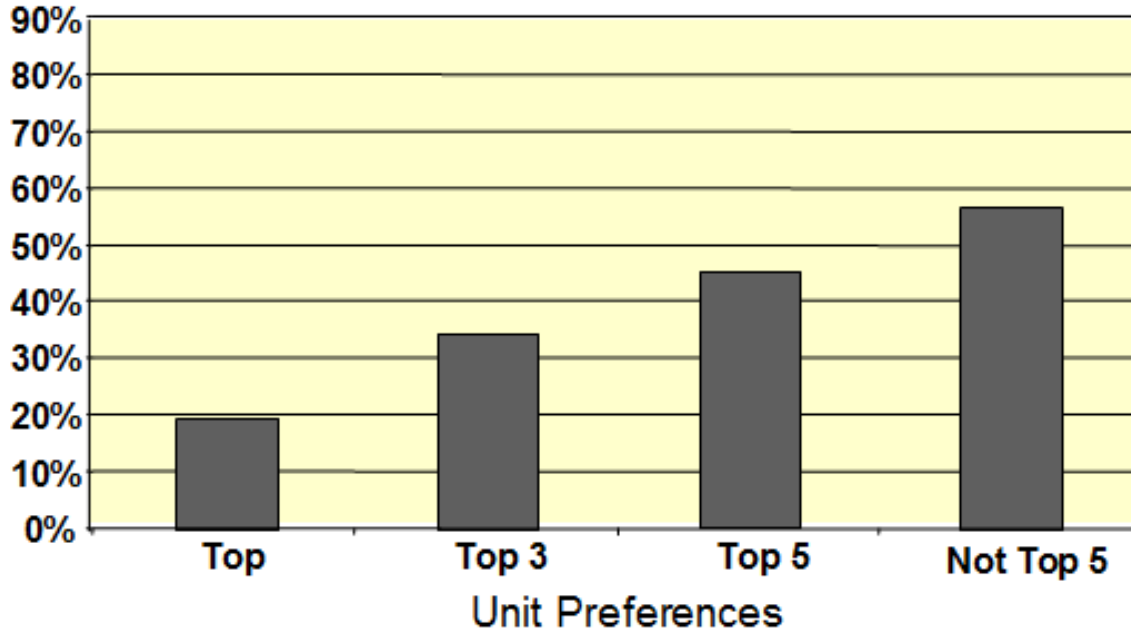
²⁰ This percentage only considers engineer officers who actually received an assignment via Green Pages and who had valid original and final preferences. Additionally, officers were 41% more likely to receive one of their top 3 preferences after using Green Pages.

²¹ “Before GP” shows the percentage of officers that would have received one of their top choices given their *initial* preferences prior to participating in the Green Pages market. “After GP” shows the percentage of officers that actually received one of their top choices given their *final* preferences after participating in the market. This increase in assignment satisfaction demonstrates that officers changed their preferences after participating in the market since the list of assignments did not change.

²² More time is required to assess unit satisfaction with assigned officers.

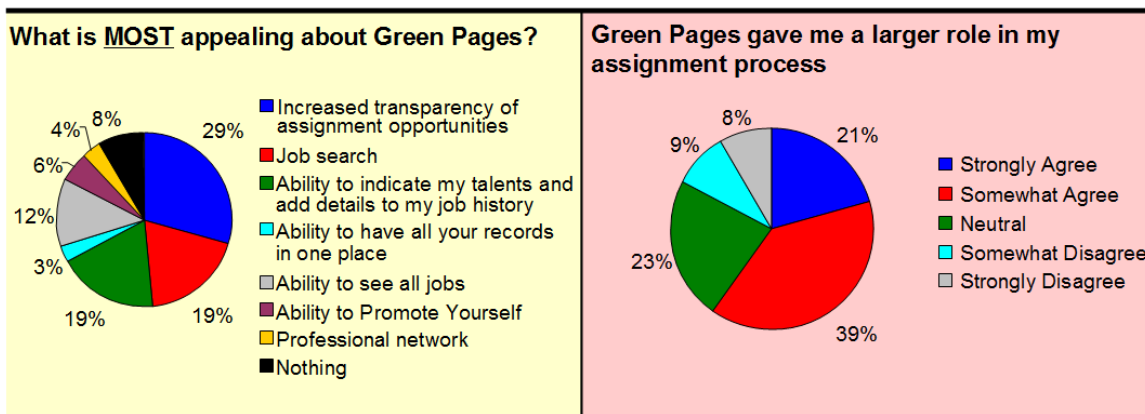
Unit Preference for Officers Assigned

Percentage of units that received one of their top officer choices



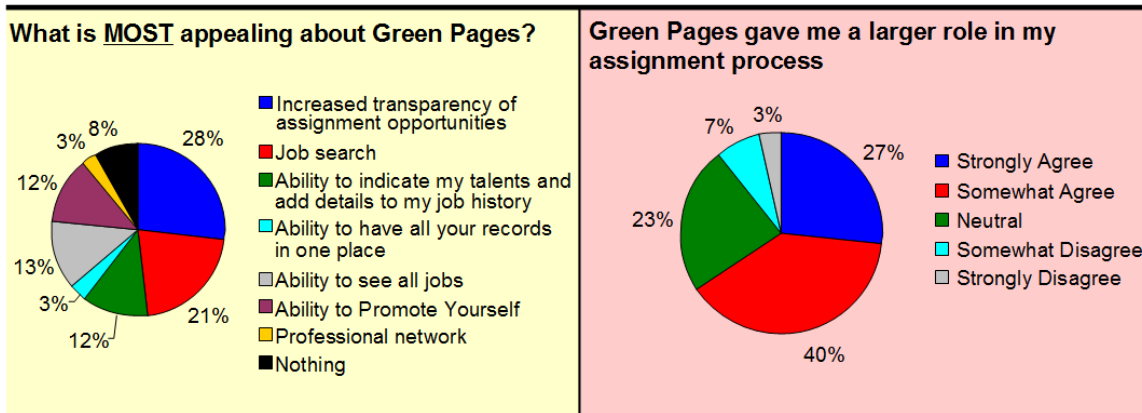
During the pilot, several survey instruments were used, to include a final survey of participating officers. Results indicate that most appreciated the increased transparency inherent in the Green Pages assignment market. Officers also felt that Green Pages gave them a greater voice in their own assignment. The following two figures summarize company and field grade responses from the final survey:

Participating Officer Assessment of Green Pages Engineer Field Grade Survey Results



Participating Officer Assessment of Green Pages

Engineer Captain Survey Results



ADDITIONAL FINDING #5: Officers want a greater say in the assignment process & want to use their talents.

As the above survey results alluded to, officers value individual talent management and more than 3/4s of them believe the Army should treat them as unique individuals. The following survey quotes are representative:

“I feel this is a system with a lot of potential to help officers and units place the right personnel in the right jobs.”

“I absolutely love the idea of the Army going towards ‘Talent Management’ and getting away from making Soldiers feel like they are just another piece in an assembly line.”

The Army should be mindful of these sentiments as it creates future officer development, employment, and retention policies.

As we mentioned earlier, generational factors definitely play a role in how Green Pages and talent management are received, and some final survey comments reflect this:

“I still don't get the point of Green Pages for the officer - I'm not the kind of person to pursue a job, so all I wanted to do was submit a preference sheet. - LTC

“It is obvious that Soldier family considerations and extenuating circumstances affecting assignments take priority over merit, skill sets, and talent and expertise -- altogether contradicting the purpose of Green Pages and a judicious assignment

policy. If you have none of those factors to leverage, then you are at a disadvantage in the negotiation process with the career manager.” - Post-ILE MAJ

We also received feedback on how well officers understood the purpose of Green Pages and how to use the Green Pages system. 90% of officers understood that the purpose of Green Pages was to provide better information, not make assignments. Two-thirds of officers felt the job search process was easy and intuitive, and 80% of officers thought the assignment preference selection process was easy and intuitive.

ADDITIONAL FINDING #6: Assignments officers had more time & information to improve talent matches.

Information dominance and the talent matching matrix discussed earlier helped assignments officers make better talent matches in several ways.²³ For hard-to-fill assignments, they could intervene in the market by calling officers who showed some interest. They could also contact officers who had expressed no interest in a unit to reinforce the unit’s interest in them: *“Have you considered that unit at Fort Drum? They really want you on their team...”* This “benevolent” rather than “directed” market intervention sometimes caused officers to add such an assignment to their preference list.

Assignments officers also encouraged “tough fill” units to build more robust unit/job profiles and to indicate their officer preferences as early as possible, increasing their odds of affecting officer preferences for them in return. As preferences aligned in the market between units and officers, assignments officers noticed a number of “1 to 1” matches where both the unit and the officer requested each other. For officers and units who entered preferences, the 1 to 1 match rate was 24%. For the most part, these assignments were the easiest to finalize.²⁴

Before Green Pages, assignments officers had limited information when making assignment decisions. They had open requisitions, officer initial preferences (from officers who didn’t even know the full extent of available assignments), some by-name-requests from

²³ A sample talent matching matrix is included in Appendix 4.

²⁴ See Appendix 4 for an example chart of “1 to 1” matches that an assignment officer might use to finalize assignments.

general officers and officer manning guidance. Within Green Pages, however, assignments officers managed more than faces and spaces. They brokered assignments between *informed* customers (officers and units), augmented by their own judgment and yet still conforming to manning guidance and Army requirements.

While engineer assignments officers felt the Green Pages learning curve was initially steep, after a few pilot iterations they became comfortable with the system. Among those who used it, a clear majority agreed that while the system needed refinements, the outcomes justify future investment in a comparable capability. As one assignments officer said, “Using Green Pages is definitely more work than the old way of making assignments, but it’s *better* work.”

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IV. DESIGNING A FUTURE TALENT MANAGEMENT PARADIGM

Talent management requires the *differentiation* of people into diverse talent pools. In a knowledge economy, where work is more interconnected, technical, specialized, and complex, differentiation is increasingly critical, and the best employers recognize this. To differentiate people, an organization must clearly articulate the diverse range of talents needed in its workforce. Differentiation is one of several change imperatives that in our view must inform any future officer talent management paradigm:

- 1. Differentiate people – seek and employ a diverse range of talents.***
- 2. Develop relevant and specialized expertise via individual career paths.***
- 3. Invest in higher and specialized education.***
- 4. Improve succession planning.***
- 5. Provide sufficient assignment tenure.***

We've written extensively about these imperatives, each of which can be achieved via thoughtful policies and programs. Successfully creating and administering those programs, however, requires data that the Army currently lacks. That data can be collected by a thoughtfully designed and configured talent management information system.

Green Pages is not such a system, and it will never scale across the Officer Corps.²⁵ An experimental environment only, it lacks the full functionality any future Army talent management solution should possess. Via multiple piloting iterations, however, Green Pages *has* provided the Army with a deep understanding of how officers and organizations behave in an assignment market and which incentives drive that behavior. In our view, this proof-of-concept test-bed has validated the feasibility and desirability of rapidly moving the Army

²⁵ At the time we write this, the Army's talent management Defense Business System is slated to be IPPS-A, with a talent management module fielded sometime in mid-decade.

towards a talent-based Officer Corps management strategy supported by information technology.

Frankly, there's little original in such an approach. America's highly regarded people managers (General Electric, Proctor & Gamble, Goodyear, IBM and others) have been using talent management IT systems for years. Much like Green Pages, the overriding purpose of those systems is to capture accurate, granular talent information on every employee and every position, facilitating the future management of each. Organizations making best use of this technology are truly transformational in nature, liberating their HR staffs from labor intensive personnel management and freeing up financial and human capital for true *talent management*. A Green Pages-like IT capability is an obvious first step in creating that type of management environment.

That said, the Army must exercise caution. Employers who successfully manage talent use technology *in support of* effective policies and practices, *not as a replacement* for them. Troweling powerful information technology over an outmoded personnel management edifice may reinforce rather than eliminate outmoded legacy practices, making their demolition harder rather than easier. It can also create a false sense that the Army has modernized or "fixed" its HR practices, causing leaders to lose focus on the challenge. Technology is a means to an end, not an end in itself.

Any future officer talent management paradigm must be built around the interrelated activities of the Army Officer Human Capital Model, but a Green Pages-like capability can certainly help integrate those activities across the Officer Corps. Here are just a few examples:

- **Development:** With well-defined talent demand requirements and talent supply inventories, the Army can better resource training to fill talent gaps.
- **Accessions:** A Green Pages-like capability can improve talent matching of cadets with basic branches.
- **Retention:** Managing officers by their unique talent improves career satisfaction, which is apt to have positive impacts on retention behavior.
- **Employment:** The market incentive of officer assignments provides an opportunity to improve productivity through better job matches.

Equally important, a Green Pages-like IT system can serve as the powerful centerpiece of a comprehensive officer evaluation system, critical to talent differentiation. Comprised of more than one-size-fits-all evaluation reports, that system would include deep periodic assessments of each officer, with a focus upon *individual development* and *employment* rather than promotion. These comprehensive assessments will require dynamic information technologies to capture results and render them truly useful to individual officers, commanders and HR managers alike. They will reveal the talents and capabilities of each officer at any particular moment, freeing the Army from lock-step career planning and giving it the ability to find the best person for any job, regardless of year group or time-in-service.

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APPENDIX 1:

A THEORETICAL TALENT MANAGEMENT FRAMEWORK

THEORETICAL FRAMEWORK - ECONOMIC AND BEHAVIORAL THEORY

Early in the development of Green Pages, OEMA examined the behavioral economic theory underlying the construction of a talent management information system. Any such system must proceed from an understanding of **how markets work, why they fail**, and what can be done to **prevent these failures** and generate desired outcomes. Behavioral economic theory helps explain **how people behave in a market** and **which incentives will move them to action**. As part of this analysis, OEMA identified several challenges of current officer management practices that a talent management information system can help redress including: a missing market for talent, principal-agent problems, information asymmetry, and externalities.

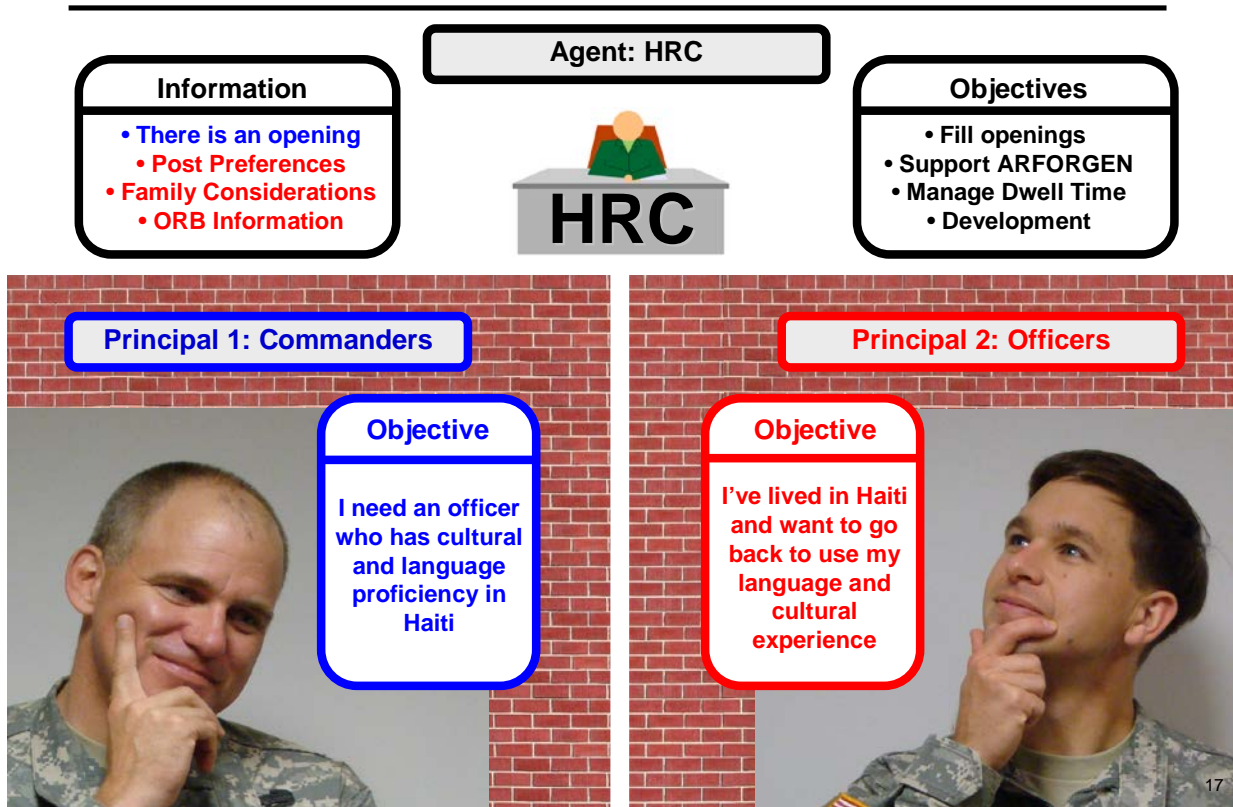
- a. **Missing Market for Talent**. Currently, there is a **missing market** for officer talent in the Army. This represents a **market failure**, meaning that an inefficient use of resources exists and a better outcome (faster, more accurate and less expensive) is possible. Right now, there is no talent matching mechanism in the Army, no way for organizational strength managers and individual officers to make efficient talent transactions. As a result, the officer talent market fails to clear optimally – in other words, assignment transactions still occur but there is a significant misalignment of talent supply and demand. Conceptually, a talent management information system can fill this missing market.

- b. **Principal-Agent Problem**. Currently, HRC serves as the “agent” (performs a service) for both officers seeking an assignment and organizations seeking talent. This construct, however, **misaligns incentives and information**. Commanders each have unique talent requirements and junior officers each have unique talent inventories. The problem is that the current paradigm does not allow the two principles to talk to the agent. Per the figure below, the

agent only knows that the commander has an opening, and only knows basic ORB information and maybe a few uninformed preferences of the officers.

Officer, Commander, and HRC Assignment Process Objectives

Overcoming Principal-Agent Problems Requires Aligning Information and Objectives



Moreover, HRC has objectives that are given by Senior Leaders that focus on filling openings, supporting ARFORGEN, managing dwell time, and doing development whenever they can. The Green Pages market concept is designed to break down these walls and give HRC the information and objectives necessary to manage officer talent.

- c. **Information Asymmetry.** Markets can also fail from **asymmetric information challenges**, where one party has more or better information than the other. This is true of the officer talent market. Each officer has more

information than the Army regarding both their own opportunity cost and their expectations of military service. Because the Army really knows relatively little about each officer's particular desires and capabilities, it must treat individuals as interchangeable parts, an increasingly ineffectual industrial era practice. Conceptually, a talent management information system can help eliminate information asymmetries by gathering full information on the individual talents of every officer and in return providing each officer with a much more transparent job market, one in which they can see all positions in the Army and gather information on each.

- d. **Externalities**. 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. Conceptually, a talent management information system can help reduce negative externalities and increase positive ones by assigning the right person to the right job at the right time, allowing them to perform optimally.

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APPENDIX 2: TALENT DEMAND (COMMANDERS, ORGANIZATIONS)

This appendix further details the development of the “demand” side of the Green Pages talent market.

UNIT NOTIFICATIONS

During initial piloting, HRC assignments officers informed unit strength managers about Green Pages at the beginning of the profile-building phase. Ordinarily, assignments officers would email the available unit contact and refer the unit to the Green Pages website where the unit could find additional information providing context about the process of talent management. OEMA assisted with limited phone follow-up as units entered the market phase and as the market closed. With these contact techniques, unit participation proved to be late and somewhat disappointing.

Further investigation revealed two problems: first line supervisors were better notification targets and the testing environment required robust contact techniques. In the regular assignment process, unit strength managers help requisition and position incoming officers. While their role gives them regular contact with HRC, and provides them a broad view of the unit commander’s priority of fill, strength managers simply provide commanders with an officer to fill a position; they do not supervise the details of all positions individually. Thus, strength managers had to reach out to supervisors in order to screen available talent and gather sufficient detail to build good job descriptions. The unit strength manager had little incentive to complete this “extra” work. However, supervisors had a stronger motivation to engage in job “marketing” and talent screening as they possessed more detailed knowledge of the position (they knew what they needed), and were interested in the prospect of building their team (they knew what they were looking for).

The second problem involved the reality of piloting this new talent management approach to assignments. In this environment, all units were familiar with the old manning procedures. Given the multiple requirements on both supervisor’s and strength manager’s time, it is easy to imagine that many of our initial emails were either lost in the shuffle or deleted. We found that individual phone calls were the best method to ensure that a unit had been notified.

Identifying and calling unit supervisors significantly increased the administrative support required of Green Pages. Units have discretion over individual positions, so there was no automated method to identify the individual supervisors for each specific job. In the case of this pilot, we contacted the senior engineer at each UIC, and the strength manager for this information. Given the difficulties in finding phone numbers and waiting for responses, it took, on average, almost two weeks to identify 80% of the supervisors for a given pilot.

We identified and tested three resourcing solutions. First, we attempted to have assignments officers identify and track down supervisors. This technique has an appeal given the assignment officer's individual authority as a representative of the pilot batch, but the time requirement was too onerous given an assignment officer's other responsibilities. The second solution involved an analogous attempt with the proponent's office. Again, this proved to be too onerous given the proponent's other requirements. Finally, OEMA dedicated an employee to the process. This solution proved effective as she was both resourced and motivated to contact units. In its final evolution, she reached out to units via email at the beginning of the pre-market phase. While she compiled the complete list of supervisors, she would follow-up on the phone. She would then monitor market behavior and start calling all units who had not submitted officer preferences at least a week and a half before market close. With her assistance, unit participation rates rose above 95%. If units knew about the system ahead of time, contact requirements fell dramatically and, in most cases, email notifications sufficed.

UNIT PREFERENCES

The figure below provides an example breakdown of unit preferences for individual officers. In this example from Pilot 3, every officer was selected at least once by a unit. This demonstrates that units had heterogeneous preferences for the available officers. While not all officers were selected in every pilot, we continued to observe heterogeneous preferences across all pilots.

Units Have Heterogeneous Preferences for Officer Talent

Pilot 3 – Every Single Officer in Batch was Selected at Least Once by a Participating Unit

Unit Name	Location	# of Slots	1st	2nd	3rd
18 th EN BDE	Germany	2			
11 th EN BN	Benning	2	McCullum	Atella	Anderson
20 th EN BDE	Bragg	3	McClelland	Atella	Holland
2 nd Stryker BCT	Germany	1			
4 th ID	Carson	1			
52 nd EN BN	Carson	2	Scheidt	Garrison	MacPhail
326 EN BN	Campbell	2	Hougnon	Welch	Anderson
19 th EN BN	Knox	2	Mackey	Schnee	Garrison
1 st MEB	Polk	2	Schnee	McCullum	Keesling
4 th MEB	Leonard Wood	3			
2 nd EN BN	White Sand MSL RG	1	Scheidt	Lowery	Leeper
2nd BCT, 1st CAV	Hood	2	McClelland	McCullum	Gronenthal
1 st CAV	Hood	1	Hammond	Warren	Burnham
3 rd MEB	Richardson	2	Scott	O'Sullivan	MacPhail
130 th EN BDE	Schofield BRKS	2	Welch	O'Sullivan	Mackey
MANSCEN	Leonard Wood	2	Johnson	Ulibarri	
DLI	Presidio, CA	1			
1 st AR DIV, 2 nd BCT	Bliss	1	Farrar	Khoj	Haynes
911 th EN CO**	Belvoir	1	Turner		
BCT	Jackson	2	Welch	Atella	Johnson
36 th EN BDE	Hood	1	Scheidt	Gronenthal	Crimaldi
1 st EN BN	Riley	1	Leeper	Keesling	Lowery

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APPENDIX 3: TALENT SUPPLY (OFFICERS)

OFFICER PREFERENCES

As previously discussed, 49% of engineer officers who received an assignment via a Green Pages pilot **changed their top assignment preference** after participating in the market. Officers viewed more detailed information on unit and job requirements and also gave greater consideration to units that selected them, even if they had not previously considered that unit.

Engineer Pilots by the Numbers

Pilot #	Pilot Name/Population	Assigned via Pilot	Change Top Pref.	Possible Changes	Percent
1	LTC 12-02	55	26	44	59%
2	LTC 12-01	8	0	2	0%
3	MAJ Winter 2013	7	4	6	67%
4	MAJ Summer 2012	61	35	52	67%
5	MAJ Spring 2012	24	12	18	67%
6	MAJ ILE Feb 2013	8	1	6	17%
7	MAJ ILE Aug 2012	64	26	57	46%
8	MAJ ILE Aug 2011	61	22	47	47%
9	MAJ ILE Feb 2011	10	0	0	0%
10	CPT Senior Winter 2013	30	9	15	60%
11	CPT Senior 12-02	31	13	20	65%
12	CPT ECCC 02-12	78	30	72	42%
13	CPT ECCC 01-12	105	0	0	0%
14	CPT ECCC 04-11	41	13	39	33%
15	CPT ECCC 03-11	40	17	36	47%
16	CPT ECCC 02-11	15	9	15	60%
17	CPT ECCC 01-11	51	19	39	49%
18	CPT ECCC 04-10	36	9	20	45%
19	CPT ECCC 03-10	23	11	22	50%
	Totals	748	230	466	49%

* MAJ ILE Pilot Feb 11 had no initial survey data
* CPT ECCC 01-11 had no initial survey data

The figure above provides the preference change rates for each individual pilot, demonstrating that the average rate of 49% across all pilots was also consistent within pilots. “Assigned via Pilot” shows the number of officers from that pilot who received an assignment through Green pages. “Changed Top Pref” shows the number of assigned officers who changed their top assignment preference after using Green Pages. “Possible Changes” shows the number of officers whose initial preferences were actually available to select as final preferences. For example, if an officer had initial preferences for Fort Dix and Fort Belvoir, but neither of these assignments were available on the slate; this officer would *not*

be counted as having changed their initial preferences as a result of Green Pages. Therefore, this officer would also not be counted in the “Possible Changes” column.

The figure below provides an example breakdown of individual officer preferences for units. In this example from Pilot 3, every unit was selected at least once by an officer. This demonstrates that officers had heterogeneous preferences for the available units. While not all units were selected in every pilot, we continued to observe heterogeneous preferences across all pilots.

Officers Have Heterogeneous Preferences for Units
Pilot 3 – Every Single Unit in the Batch was Selected At Least Once by an Officer

Officers	Preference 1	Preference 2	Preference 3
CPT Kulian	Presidio, CA	Schofield BRKS	Germany
CPT Atella	Benning	Jackson	Campbell
CPT Elliott	Schofield BRKS	Carson	Germany
CPT Kinsey	Jackson	Presidio, CA	Knox
CPT Mackey	Belvoir	Carson	Knox
CPT Warren	Leonard Wood	Schofield BRKS	Campbell
CPT Colman			
CPT MacPhail	Carson	Richardson	Bragg
CPT McCullum	Belvoir	Benning	Campbell
CPT Farrar	Germany	Germany	Richardson
CPT Scott	Bragg	Richardson	Campbell
CPT Schnee	Campbell	Benning	Bragg
CPT Johnson	Jackson	Presidio, VA	Germany
CPT Anderson	Bragg	Campbell	Benning
CPT O'Sullivan	Richardson	Bragg	Schofield BRKS
CPT Garrison	Carson	Carson	Knox
CPT Hougnon	Campbell	Riley	Carson
CPT Makar	Carson	Schofield BRKS	Germany
CPT Ulibarri	Presidio, CA	Leonard Wood	Jackson
CPT Casey	Carson	Carson	Drum
CPT Goffin	Belvoir	Presidio, CA	Germany
CPT Cook	Bragg	Schofield BRKS	Carson
CPT Turner	Belvoir		Germany
CPT Hammond	Belvoir	Carson	Germany
CPT Rivers	Schofield BRKS	Presidio, VA	Jackson
CPT Cimaldi	Germany	Carson	Germany
CPT Welch	Campbell	Riley	Carson
CPT Myers	Knox	White Sands	Hood
CPT Keesling	Riley		
CPT Leeper	Riley		
CPT Khoi	Presidio, CA	Schofield BRKS	Bliss
CPT Darroux	Germany	Germany	Presidio, CA
CPT Burnham	Benning		
CPT Scheidt	Carson	Carson	Hood
CPT Gronenthal	Schofield BRKS	Presidio, CA	Richardson
CPT Holland	Bragg	Belvoir	Campbell

**APPENDIX 4:
TOOLS FOR TALENT AGENTS
(HRC, Branch Proponents & Schools)**

BRIEFING TOOLS

To inaugurate the profile-building phase, assignments officers – talent agents – provided the below email and slide combination to each officer. In addition, the assignment officer briefed Captain's Career Course officers about the system in person. For populations that are geographically dispersed, like most majors and lieutenant colonels, email was the only method of communication. During the initial pilots, OEMA provided additional personnel to contribute to officer briefings at the Captain's Career Course.

Initial Email to Officers

ALCON,

If you are receiving this message then you have been identified as needing an assignment this winter (NOV-JAN) or have not communicated your available assignment date (ECCC 03-11 MS&T). Attached you will find a short green pages introduction. Go into green pages and navigate to the "my profile" tab. Most of the information is automatically pulled. You can add a BIO, picture and other significant information. I have seen in past cycles that officers taking the time to project a good profile are more desired by the units so take your time and put some thought into it.

On 08JUN the green pages window will open. This is when the assignments will be available to view under the "my assignments" tab. Your profile (my profile tab) has to be updated to a certain percentage IOT view the assignments. I will be at FLW to conduct interviews and a branch brief next week. Once the assignments are available to view, you can list your preferences and reason. Your preferences are not locked in and will likely change from the beginning until 10JUL when the window closes. The units have been requested to fill in the information about the assignment that's most important to you as well. The command queue, deployment timeline and type of unit to command. As preferences are made by both the officers and units, communication between the two is encouraged. Do not wait until you have everything to list your preferences. You will be highlighted to the units (UIC) as wishing to go there when they view the officers available. You are not limited to how often you can change your preference listing as more information becomes available.

If you have any issues logging on or with the data please let me know.

Thanks,
"Assignment Officer"

Slide 1: Problem Statement

- The Army is confronted with an operating environment that changes more rapidly than its doctrine or organizations.
- In the Information / Conceptual Age, work is increasingly characterized by high levels of task interdependence, skill specificity, and uncertainty.
- Therefore, rapid workforce development and realignment is key to building high performance relationships.
- To do this well, the Army must know what talents its people possess and what talents its organizations need.
- Currently, the Army has a limited ability to achieve this because it **lacks a talent market**.

Slide 2: Motivation for Green Pages

The Army Can Know More About the Officer Talent it Possesses

Cadet	Lieutenant	Captain	Major	LTC
Assignment Information				
<ul style="list-style-type: none"> • Cadet, USMA 	<ul style="list-style-type: none"> • BOLC III Student • 1st ENG Bn, 3ID 	<ul style="list-style-type: none"> • 1st ENG Bn, 3ID • HQ, 1ID, ADE 	<ul style="list-style-type: none"> • Princeton University • USMA Staff & Faculty • CGSC Student • 1st ENG Bn, 3ID XO • 3ID, G3 Trng 	
Promotion Potential Information				
<div style="border: 1px solid black; padding: 2px; font-size: small;"> Text in Red – Captured in HRC Systems (but NOT searchable) </div> <div style="border: 1px solid black; padding: 2px; font-size: small; margin-top: 5px;"> Text in Black – Competency Information NOT Captured in HRC Systems </div>	<ul style="list-style-type: none"> • BOLC III AER • PLT Leader OER • CO XO OER 	<ul style="list-style-type: none"> • Staff OERs • CO CDR OERs • Staff OERs 	<ul style="list-style-type: none"> • Grad School AER • Instructor OERs • CGSC AER • BN XO/S3 OERs • Staff OERs 	
Competency Information (Human Capital)				
<ul style="list-style-type: none"> • BS Engineering • Program of Study Details to include Comments from Professors and copies of major products • Airborne School • Arabic – 2 Years • Minor Middle East Area Studies • Semester Abroad - Jordan • Crossroads to Africa • Varsity Lacrosse • Model UN Delegate • FE Certification • Lived in Iraq as Child of FAO 	<ul style="list-style-type: none"> • SAPPER School • Horizontal Construction Mosul • Established Local Water Authority, Mosul • Interagency Experiences with DOS, CIA, USDA, NGOs 	<ul style="list-style-type: none"> • Established Search Dog Program for Iraqi Army • Repair of Roads and Bridges, Mosul, Iraq • Established River Security Program, Mosul, Iraq • Worked Closely with Senior Iraqi Regional Officials 	<ul style="list-style-type: none"> • Program of Study Details to Include Copies of Major Products • Published Papers on Reconstruction • Presentations at Professional Conferences • Networks of Colleagues and Faculty 	<ul style="list-style-type: none"> • Instructor Information <ul style="list-style-type: none"> – Engineering Econ – Reconstruction Mgmt • COE Experience <ul style="list-style-type: none"> – Support to ACE – Projects for CENTCOM • Trip Leader – Africa • Published Papers • Interagency Experience with FBI • PE Certification

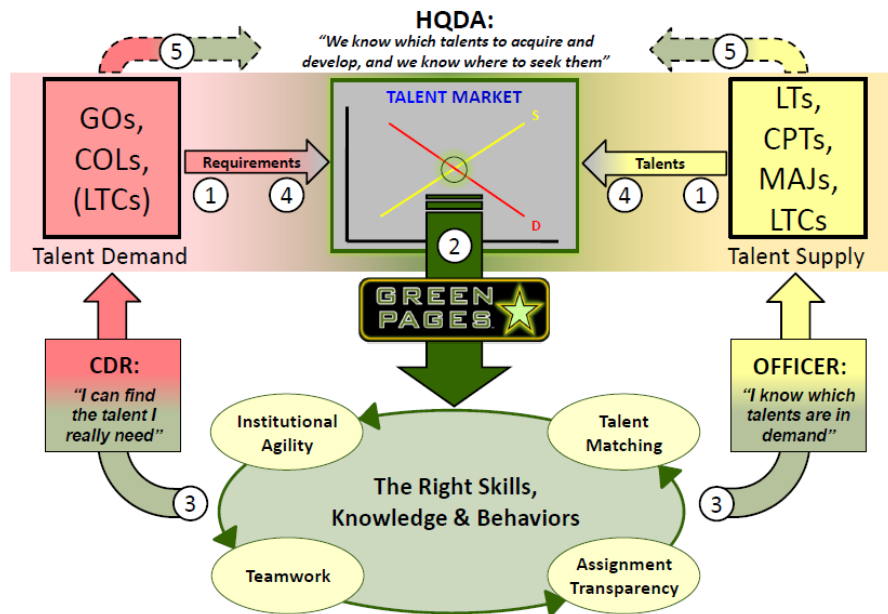
Slide 3: Motivation for Green Pages

Commercial Applications Know the Most About Our Officers

SEARCHABLE Talent Information		Commercial
Current work		✓
Current career goals and interests		✓
Size, type and activity of current organization		✓
Last several positions held and specific accomplishments		✓
Publications, websites or other professional networks		✓
Specific areas of higher education inquiry and study		✓
Preferred (most effective) ways to be contacted		✓
Talent acquired via personal interests and experiences		✓
Non-military awards, honors, licenses or certifications		✓
Talent acquired through work		✓
Trusted associates and connections		✓
Professional associations and groups		✓
Questions posed or answered in professional forums		✓

Slide 4: The Green Pages Talent Market

Green Pages Moves the Army Forward by Revealing Both the Talent it Possesses and the Talent it Needs



Slide 5: Pilot Information

The Pilot is Split into 3 Phases

Phase 1:

Create the Demand – Units Provide Information about their Unit and Individual Jobs available to EN CPT's within their Unit

Create the Supply – Officers enhance their profiles to provide additional information about their background and experience to potential commanders and strength managers

Phase 2:

Assignment Window Open - The assignment window will be open on June 8th, 2011 and remain open until July 10th, 2011.

Officer: Once the Assignment Window opens, you will be able to see what unit/posts are available, available jobs within each unit, and contact information for that assignment. You are encouraged to contact that unit's strength manager.

Unit: As strength managers, you will also have the ability to search from the available pool of officers and recruit individuals with the background, experience, and talents that are best fit for your unit. The ultimate goal is for both the officers and the units to make a well informed decision in matching talents to assignments. During this time, you may receive direct requests for additional information from individual officers as well as an increase in the number of letters of introduction from interested officers.

Phase 3:

Matching – Assignments Finalized

At this time, CPT Nix (Assignments Officer) is able to see both the Officer and Unit Preference within the Green Pages Tool and confirm that the assignment can happen. All RFO's will be completed NLT 14JUL11 and provided with both the Officer and Unit.

Slide 6: Pilot Directions

What I Do Now?

- Log into Green Pages at www.greenpages.army.mil with your AKO Username and Password. You will also have the ability to CAC log in.
- You will be asked to **take a short survey** in order to gain access into the site. Please be honest and frank in your responses, as we are still in the pilot phase and want to ensure Green Pages fits all of your needs.
- Feel free to look around within Green Pages, but ensure you **begin enhancing your profile!** Your assignment window opens Friday, August 13th.
- If you have any questions or require technical support, please contact the Green Pages Support Team at support.greenpages@us.army.mil.

ASSIGNMENT TOOLS

The Green Pages market both generates information, in terms of preferences and preference changes, and reveals new information about officers. The table below is an excerpt from a matching matrix tool that we created to assist assignments officers with visualizing the talent market as it developed. We updated this matrix throughout each pilot as preferences changed and sent it to the assignment officer. This sample, with fictionalized names, represents actual preferences from a manning cycle with Engineer Majors in Spring 2012. The top of the matrix shows two unit UICs participating in that pilot, WAB5AA and WAB1AA. Beneath each unit are the officer preferences for that unit in the “O” column and the unit preferences for that officer in the “U” column. For example, Francis Childress selected WAB1AA as his first choice assignment, and the unit also selected Francis as their first choice officer to fill that assignment. Michael Teague, however, has WAB5AA as his second choice and they have not selected him.

Officer and Unit Preference Matrix

	WAB5AA		WAB1AA	
	0101 IN HHC 02 HQS BDE CBT TM		0101 AR DIV DIV HQ & HQ BN	
	O	U	O	U
john.lyle				
david.vigna			3	4
francis.childress			1	1
john.murphy				
luke.wojtasczek				
erik.gallagher	1	3		
john.dean				
mittell.smith				
michael.teague	2		1	3
anibal.colon				
anthony.cole1				

Officers and units also provided justifications for their preferences. The text box below shows an example of officer free text entries that were available to both units and assignment officers. This information enabled the assignment officer to make decisions during both the market and the post-market phase. During the market phase, the assignment officer could anticipate preferences and provide information, or guidance, to help shape preferences. The assignment officer was the only person who could see both sides of the market in full detail. Recall that the officer was only able to tell that he or she had been selected, and could not view where they fell in the unit’s list of ranked preferences. The same was true for units. See below for an example of both officer and unit reasons for their preferences visible to the assignment officer. This information along with ranked preferences on both sides assisted assignments officers in identifying “market clearing” matches.

Officer Reasons for Preferences

WAB1AA	david.vigna	3	I am an engineer. However, I have spent the vast majority of my service in a combat role. I would like the opportunity to apply my engineering skills in both the United States and abroad. I think that the 7th SF Group would offer a unique opportunity to coordinate construction and maintenance schedules in CONUS and provide critical services and engineering support to warfighters abroad.
WAB1AA	francis.childress	1	This Billet looks like an exciting and challenging job where I can combine my professional engineer background with my combat engineer training, in the Pacific Theater protecting against the emerging threat.
WAB5AA	erik.gallagher	1	Broadening position. Like the location. Would challenge me to develop as an Engineer Officer.
WAB5AA	michael.teague	2	KD Assignment for S3/XO.

Market Clearing Matches

Potential Matches where Supply and Demand Clear “Easily”

CPT Kyle Wagner wants Ft. Leonard Wood:

Stability- I purchased a house in Waynesville with my wife and we will have a new baby in late July. Of particular interest to me is the OSUT command of A/554. It is also important to me to help train America's next generation of Combat Engineers and strengthen the Regiment. What better way to fulfill this desire than to facilitate their first experience with the Army. I have previous experience as a Platoon Leader and Executive Officer in a Combat Engineer Company in a Combined Arms Battalion.

FT. Leonard Wood wants CPT Wagner: Unit says Previous combat experience and duty positions are desirable for this position.

CPT Robert Snipes wants FT. Jackson: I am from South Carolina. I began my military career at Ft. Jackson, SC back in 1995 and I would like to command a basic training company at Fort Jackson, SC. Currently I am attending the EN CCC and set to graduate in October 2010. Fort Jackson, SC is my first choice of duty stations. I am just returning to active duty and my ORB is currently being updated but on my profile you will be able to see some of my military and civilian experiences.

FT. Jackson wants CPT Snipes: Selected him first, but did not list a reason for their selection.

CPT Travis Toole Wants Schofield: says I would be honored to serve in the 8th TSC and continue the excellence of the units within the 8th TSC. The units that I have served next to from the 8th TSC have always been of the highest caliber and I would be proud to be in the formation.

Schofield wants CPT Toole: Unit says Ranger and Sapper Qualified. Perfect fit for the BN with operational experience and qualifications. Would be slated for the 34th Sapper Company.