

A Proposed Pilot to Recruit Pretrained Personnel

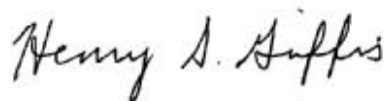
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A handwritten signature in black ink that reads "Henry S. Griffis". The signature is written in a cursive style with a large initial 'H'.

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Executive summary

Early in the 21st century, the United States Navy launched Sea Power 21—a strategy to organize, integrate, and transform the Navy to take advantage of changing technology and to meet emerging challenges and threats. An important part of that vision is a reduced enlisted workforce of more experienced, better educated, more skilled, and higher performing people than ever before. It also means a more flexible manpower system that ensures (a) the right mix of skills for Sailors to meet the Navy’s needs and (b) quick responses to emerging requirements. At the very least, this strategy will involve significant changes in the shape of the force and in recruiting, training, and personnel policies.

In support of these efforts, CNA initiated a project to address several aspects of human capital management, including innovative career paths, alternative military retirement systems, a strategy for Navy civilians, and a proposed pilot in recruiting and training. This paper describes the latter. Specifically, we propose implementing a pilot to recruit pretrained civilians with the following specifications:

- *Whom to recruit:* Recent community college graduates or those in their final semester of an Associate degree program in electronics engineering technology accredited by the Accrediting Board for Engineering and Technology (ABET).
- *To which ratings/programs to assign these recruits:* Those with a significant electronics training component, to include at least the Advanced Electronics/Computer Field (AECF), AE, AT, CTM, EM EW/CTT, FT, GSE, IC, MT, and STS.
- *What training can be eliminated:* Narrowing the pilot to those with little or no work experience, and to those graduating from an accredited program, allows the Navy to minimize the number of different training paths necessary for recruits in the pilot. Creating placement tests that are based on a thorough

understanding and inventory of the knowledge, skills, and abilities (KSAs) necessary for the ratings, as well as the KSAs common in the accredited programs, is fundamental to this process. New Navy training courses for these pretrained recruits may be required, or new recruits may be able to be inserted in preexisting courses. The specifics should be determined as part of the Sea Warrior effort.

Past experience with recruiting pretrained tells us that the best way to ensure a timely, successful pilot is to use civilian recruiters. Paying civilian recruiters only for contracts instead of a salary, regardless of performance, minimizes the recruiting cost of the pilot and reduces the risk of failure to meet the recruiting mission that is inherent in diverting some of the regular recruiting force to a pilot.

When fully implemented, the pilot would include a significant number of Navy occupations and technical fields. This is a concept that could enhance the average skill level of junior Sailors, enabling a different kind of force structure in which fewer Sailors are in initial pipeline training and more are in the fleet as technically trained Petty Officers.

Conducting such a pilot would also allow the Navy to better understand the following:

- How to recruit pretrained personnel, in general, and how to use civilian recruiters to do so
- How to assess pretrained recruits' KSAs and either insert them into a preexisting training pipeline or design alternative ones
- How to retain and put these valuable recruits to the best use—all at minimal risk and expense.

Introduction

Sea Power 21 is the Navy's 21st-century strategy to organize, integrate, and transform the Service to take advantage of changing technology and to meet emerging challenges and threats. Part of that vision is a reduction in the enlisted workforce, with those remaining being more experienced, better educated, more skilled, and higher performers than ever before. Further, according to the former Chief of Naval Operations (CNO), it means getting "people with the right skills to the right place at the right time."¹ This effort will involve significant changes in the shape of the force, which must be accompanied by a substantial rethinking of Navy manpower in general.

To achieve these simultaneous goals of reducing the force while enhancing the skill level of Sailors, the former CNO, Admiral Vernon Clark, made a comprehensive human capital strategy a key component of his 2005 Leadership Guidance. In it, he states that an "optimum Human Capital Strategy will not be possible unless we challenge the assumptions inherent in our current manpower approach, that is, our default strategy."

In support of these efforts, CNA initiated a project to address several aspects of human capital management, including a discussion of innovative career paths (see [1]), alternative military retirement systems (see [2]), and a strategy for Navy civilians (see [3]).

In this paper, we describe a fourth task—to design a pilot program in recruiting and training that will allow the Navy to recruit from a wider variety of people and to tailor the training for nontraditional recruits to their specific needs. We focus our efforts on the recruitment of pre-trained civilians. In the next section, we explain why we consider pre-trained civilians and summarize past experiences with pretrained recruits in the individual Services.

1. Source: CNO's 2005 Leadership Guidance.

Background

The concept of recruiting pretrained² civilians for the enlisted force is not new. For instance, CNA has worked with the Navy for many years on expanding the enlisted recruiting market to community colleges to increase the pool of high-quality recruits, as well as to save training costs. These efforts have included experiments to recruit pretrained, to outsource training to community colleges, and to create Tech Prep partnerships (e.g., see [4, 5, 6]). This body of research, in addition to a recent study [7], concludes that Associate degree graduates (more broadly, recruits with some college experience) are beneficial to the Navy because they are of higher quality and they experience lower training attrition, lower fleet attrition, and higher retention than all other educational categories of recruits, including high-quality high school diploma graduates (HSDGs) with no college experience. Additional returns to these recruits could result from their higher productivity—something that is difficult to measure but is widely held to be true in the civilian workforce.

The Navy, however, does not fully capture the benefits of these pretrained recruits because virtually all recruits, regardless of their civilian education and training, begin their A-school pipeline training at the same place and follow an identical path. Our previous research has shown that, in many technical fields, there is sufficient overlap between Navy and civilian training to significantly reduce, or even eliminate, lengthy occupational training. Eliminating redundant Navy training could considerably reduce recruits' time to train, get them to the fleet faster and more broadly trained because of their college education, and significantly reduce the total billets devoted to

2. For our purposes, we use the term *pretrained* to refer to those who have civilian education and/or training in an occupational field, but little or no work experience. Lateral entrants, in contrast, have both training and significant experience. Thus, pretrained recruits form a subset of lateral entrants.

entry-level paygrades required for initial skills training. Such a strategy could help support a different force structure that has a smaller proportion of unskilled Sailors and fewer E1-E3 billets and that has, on average, more technically trained Sailors. Further, establishing procedures in which civilians can be inserted into the pipeline at the level appropriate to their education and experience across a large spectrum of Navy occupations allows the Navy to quickly meet emerging needs for Sailors with a particular set of skills, either because attrition in those skills is unusually high or because they are new skill requirements.

The last two functions that pretrained recruits can serve are the most relevant to the vision of Sailor 21—that of a smaller yet more skilled workforce that has enhanced flexibility and the ability to get to the fleet faster. Other options exist for creating a smaller but more skilled workforce, but recruiting pretrained has the potential to be one of the fastest ways, which is particularly important when faced with rapidly changing technology.

It is these last two functions that we address in our proposed pilot to recruit pretrained Sailors. Specifically, we seek to create a pilot in which the Navy can test a strategy to get more technically skilled Sailors to the fleet faster. This will require the Navy to evaluate the knowledge, skills, and abilities (KSAs) of pretrained recruits and, based on this evaluation, eliminate all redundant Navy training modules. For some occupations, this is a simple exercise; for others, it requires a fairly sizable upfront investment to modify both the recruiting and training model. This is not just a theoretical argument; both the Army and the Navy have successfully recruited pretrained civilians in the past and reduced their training based on their civilian education. Yet these efforts are rare and often difficult to implement for a number of reasons, involving both the training and recruiting organizations. We explore these reasons next.

Experiences recruiting pretrained

Recruiting pretrained civilians is relatively prevalent in the officer ranks. In fact, all of the Services rely heavily on civilian training institutions to provide most of the training in a number of communities.

In the Navy, examples include the Chaplain, Medical, Dental, Nurse, Medical Service, Civil Engineer, and Judge Advocate General Corps.

While few in number, most of the experiments involving pretrained enlisted Servicemembers have been conducted by the Army and the Navy. We describe some of them next.

Army experiences

In 1991, the Army conducted an experiment to recruit pretrained civilians into Military Occupational Specialty (MOS) 63B10, Light Wheeled Vehicle Mechanic. Civilians recruited into this program with high school or vocational training attended an abbreviated Advanced Individual Training (AIT) course for the MOS that was reduced by 9 weeks in length [8]. Their performance on the MOS Qualification Test was compared with that of those recruited with no prior experience and who attended the normal, longer training pipeline. The study found that civilian-trained recruits did as well as or better than the other recruits on the MOS test, and that the shortened AIT did not degrade Soldier effectiveness in the field. Even so, the program was never implemented because, according to the authors, recruiters did not have an incentive to target these types of recruits, and no recruiting goals were set. They also argue that the ACASP program (described next) that offered advanced paygrade and accelerated promotions, as well as enlistment bonuses in some cases, decreased the attractiveness of the program.

The Army Civilian Acquired Skills Program (ACASP) provides for the Army to recruit pretrained civilians and offers them advanced paygrade on accession (up to E5), often with accelerated promotion, and with reduced or no additional Army technical training beyond bootcamp. The program includes 98 different MOSs, many of which are either musician or medical assisting specialties. However, at least half include other types of occupations, such as radio operator, land combat electronic missile systems repairer, metal worker, machinist, journalist, laundry and bath specialist, and heavy construction equipment operator. ³ According to Mr. Todd Rohrer at USAREC, in FY04

3. Source: Army Regulation 601-210.

374 civilians were recruited through ACASP into the Regular Army, and 342 were recruited into the Reserves.

While ACASP has been in existence at least a decade, an exhaustive search of the literature yielded no research of the performance of ACASP recruits or its cost-effectiveness. According to reference (8), however, the Army does have plans to review ACASP.

Navy experiences

Lateral Entry Accession Program (LEAP)

In the 1980s, an experiment known as LEAP was conducted. Under the program, civilians could be recruited into a number of different ratings at paygrades E4 to E6. The experiment was a failure because instruments used to test the skills and knowledge of entrants were flawed. In particular, the tests were designed to assess recruits' knowledge of theory that most likely would have been learned in vocational or technical school years earlier, as well as to test the types of skills and knowledge that are normally acquired only through lengthy on-the-job experience. Relatively few could be accessed at a Chief Petty Officer rank because of the requirement to pass both components of the test—something that active duty Chief Petty Officers would have struggled with as well. Accessed instead as Petty Officers, the Navy realized very little in terms of the benefits of recruiting these highly skilled and experienced people. According to reference [9], the experiment produced very few accessions, and the program was never implemented.

Direct Procurement of Enlisted Personnel (DPEP)

The Navy then developed the DPEP program, in which recruits can be accessed at an advanced paygrade in “critically staffed Navy ratings,” with no Navy technical training beyond bootcamp. Recruits with vocational training only and no experience can be accessed up to paygrade E3; recruits with civilian training and/or one or more years of experience can be accessed up to E7.⁴ However, the Navy has never used this program for more than one or two ratings, accessing

4. Source:COMNAVCRUITCOMINST 1130.

fewer than five recruits each year. In particular, this is the only way the Navy recruits morticians, a Navy Enlisted Classification (NEC) within the Hospital Corpsman (HM) rating, because no Navy school exists for this specialty.

The Navy's HM experiment

In FY96, CNA worked with the Commander, Navy Recruiting Command (CNRC) to establish a pilot program to recruit pretrained HMs with civilian certification into the enlisted ranks. We briefly summarize the experiment here; details are found in [5] and [6].

The experiment was created to help recruiters break into the community college recruiting market, as well as to determine whether recruiting pretrained civilians into the enlisted ranks was feasible. It consisted of recruiting graduates from civilian accredited programs comparable to the Navy training in either of two HM NECs: 8452 (Advanced X-ray Technician) and 8506 (Medical Lab Technician, Advanced). The experiment was later expanded to include NEC 8483 (Surgical Technologist), NEC 8482 (Pharmacy Technician), and Dental Hygienists (a DT specialization).

The HM rating was chosen as a starting point because many of the Navy C-schools are accredited by civilian accrediting bodies, thereby ensuring that both the quality and content of the civilian training can satisfy all of the Navy's requirements for those specialties. The first two NECs were chosen for having significant Billets Authorized (BA) and lengthy C-school training (approximately 52 weeks of instruction for each). Because of the shared accreditation of the programs, the Navy awarded each Sailor the relevant NEC on successful completion of bootcamp and HM A-school, without additional training or testing.

At that time, HMs were neither difficult to recruit nor difficult to retain. In fact, HMs experienced a slow rate of promotion. For those reasons, attempts were unsuccessful to secure an Enlistment Bonus (EB) to attract these recruits, or advanced paygrade beyond E3—the rank that all college recruits are awarded who enter with at least 45 semester hours of college credit. However, because they were able to save about a year of C-school training, they incurred a 4- vice 5-year obligation.

Early in the experiment, CNRC set a goal for 6 of the 31 Navy Recruiting Districts (NRDs) of recruiting 50 X-ray Technicians and 25 Medical Lab Technicians and requested that all NRDs participate in the program. Seven months later, around the time the additional NECs were added, the Navy dropped the “experiment” label and the goals and instead urged all recruiters to recruit qualified people from the community college market, in general, and to recruit pretrained people in the five HM and DT specialties. Finally, at that time, pretrained recruits in these ratings became eligible for the Navy College Fund, and pretrained Dental Hygienists were offered a \$2,000 enlistment bonus or Navy College Fund (but not both).

The removal of goals for these pretrained recruits was perhaps the largest contributing factor to the sharp reduction in pretrained recruits into these NECs. In the first 8 months of the experiment,⁵ while the 6 NRDs were still goaled, the Navy recruited 21 pretrained HMs; only 8 were recruited the following 10 months. CNA stopped tracking the experiment after that time.

While the sample sizes are small, the performance of these recruits is quite impressive. In particular, the following statements can be made of the 25 who shipped to bootcamp (resulting in a 14-percent DEP attrition, slightly lower than the overall 18-percent DEP attrition of all A-cell recruits in FY96):⁶

- None attrited during boot camp.
- None attrited during A-school.
- 90 percent graduated in the top half of their HM A-school class.
- 12 percent attrited within 48 months, significantly lower than the 28-percent 48-month attrition of all HM recruits in FY96.

5. While the goals were lifted after 7 months, we include the first 8 months here because those recruited in the 8th month were most likely first contacted while the NRDs were still goaled.

6. Bootcamp and A-school performance data are from [4]. First-term attrition is derived from CNA extract of the December 2004 Enlisted Master File.

Their low A-school and first-term attrition is consistent with the findings of [7]. The experiment also confirmed that expensive training costs could be avoided by recruiting pretrained civilians; all but 2 of the 25 who graduated from HM A-school reached the fleet without additional NEC training (the remaining 2 attrited before reaching the fleet), saving the Navy about 23 man-years of expensive C-school training. Ignoring the cost of infrastructure, equipment, and other overhead necessary to train these Sailors, and instead simply using a rough estimate of \$30,000 composite rate for an E3 with 1 year of service, this equates to a minimum of \$690,000 in savings.⁷

Estimating the cost to recruit these pretrained recruits is not an easy task. Certainly, in terms of additional financial incentives, the costs were negligible. As described in [4], little was spent in terms of target marketing for this effort either. The greatest cost would have come from the “opportunity cost” of devoting time to recruiting these pretrained recruits, at the expense of the higher propensity high school market—an estimate that was not possible within the scope of the HM experiment. The Navy was still downsizing during the period covered by this experiment, but the next few years were especially difficult for enlisted recruiting. In particular, the Navy missed the enlisted recruiting goal by 7,000, or 12 percent of mission, in 1998. Therefore, the opportunity cost to recruiting these lower propensity recruits was certainly much lower in FY96 than it would have been had the experiment been conducted in FY98 or FY99. In contrast, the cost to recruit pretrained HMs, in terms of recruiter time and effort, would have been reduced as recruiters gained experience in recruiting from this market and established relationships with community college faculty and placement personnel.

7. In the case of pretrained HMs, the savings do not accrue to the Navy because enlisted medical training is paid for by the Defense Health Program.

Summary of lessons learned

After incorporating Army and Navy lessons learned in recruiting pre-trained, we are left with a number of observations and conclusions, which we summarize here.

First, significant returns to recruiting pretrained will be realized only if the Navy takes advantage of their civilian-acquired knowledge and skills. This will require the elimination of redundant Navy training for pretrained recruits. Failure to reduce their training is a waste of Navy resources, and it is counter to the CNO's 2005 guidance in winning the Battle for People. In particular, the CNO's guidance notes that, while the Navy has been increasingly successful in attracting a talented cadre of professionals, the Navy's "ability to challenge them with meaningful, satisfying work that lets them make a difference is fundamental to our covenant with them as leaders." Sitting for weeks in redundant training is not "meaningful, satisfying work" for new recruits who are recent community college graduates or who have extensive civilian experience.⁸

Instead, accessing these pretrained recruits, who enter with a broader education than the Navy provides, and training them to do their job in a shorter period of time is one way to address the CNO's Leadership Guidance of getting "people with the right skills to the right place at the right time."

Unless large numbers of pretrained can be recruited, however, the training community has little incentive to devote a significant amount of time and resources to establishing alternative training paths for these recruits. In other words, to be successful, with full cooperation

8. We recognize that (a) not all community college major fields of study have an overlap with Navy occupational training and (b) some community college graduates will access into fields unrelated to their college majors. In neither case would the Navy be able to reduce the training of these pretrained recruits. We refer here instead only to Navy occupational training that is redundant to the training and/or education that the recruit received while in college.

from both training and recruiting, occupational fields must be chosen for recruiting pretrained that satisfy the following criteria:

- There is a large civilian market from which to recruit.
- The Navy demand for Sailors with these skills is relatively large.
- The Navy training pipeline is long enough to ensure that the savings per recruit exceeds the additional cost of recruiting. This breakeven point is primarily a function of the civilian market for these skills, which in turn influences the amount of financial incentives that are necessary to attract and retain pre-trained recruits.
- There must be significant overlap between the Navy's training and that of civilian institutions, which is the case in the HM, CS, JO, IT and MU ratings, for example. This criterion all but eliminates the option of recruiting pretrained into the Special Warfare communities, such as the SEALs or EOD divers.

Recruiting issues

From the recruiting perspective, it seems likely that it costs more to recruit pretrained, in terms of both financial incentives and recruiter time and effort.⁹ Stovepipe funding makes it difficult for the training savings that accrue from recruiting pretrained to help finance the increased recruiting costs. Navy recruiting has little incentive to spend significant resources to train recruiters, develop strategies, and commit recruiters and other recruiting resources to tap into the pre-trained market. Recruiters already have goals for high-quality recruits; without specific goals to recruit pretrained, very few will ever be recruited. In general, the more difficult the recruiting market (e.g., due to a low unemployment rate), the more difficult it will be to recruit pretrained, and the fewer resources CNRC will devote to

9. No research exists to confirm this, but studies have shown that it costs more to recruit A-cell recruits (HSDGs who score in the upper 50th percentile on the Armed Forces Qualification Test (AFQT)) than B-cell recruits (Non-HSDGs (NHSDGs) who, by law, must score in the upper 50th percentile on the AFQT).

the effort. This is especially true now as Navy recruiting undergoes significant changes in terms of the consolidation of NRDs and the merging of active duty and reserve recruiting.

Finally, our experiences lead us to the conclusion that, as recruiters attempt to break into the pretrained market, there should be no competing goals for personnel recruiting pretrained to also recruit for the general enlisted ranks. The 2-year college graduate market, which is the largest single source of pretrained youth, is one of the most difficult for recruiting; people in this market have a fairly low propensity to enlist, and most recruiters have no experience recruiting in this market. Further, it has been our experience in the HM experiment and in developing Tech Prep recruiting strategies that most enlisted recruiters are intimidated by the college market, especially those who have no personal college experience. As a result, recruiters will tend to spend less time in this market than on any other, if given the option. One solution is dedicated recruiters with exclusive goals for recruiting pretrained.

Under current practice, there are two options for satisfying this criterion: (a) reduce the regular recruiting force by the number of dedicated pretrained market recruiters, or (b) supplement the regular force with recruiters dedicated to the pretrained market. Both options are problematic for a number of reasons. First, the number of recruiters authorized is a function of the average number of recruits possible per recruiter per year given prevailing unemployment conditions and other factors that affect the overall recruiting market. This number is based on the current quality mix that does not include these lower propensity college market recruits. Therefore, a reduction in the number of recruiters devoted to recruiting the average recruit (option (a)) could result in a reduction in the total number of recruits for the Navy and a failure to meet mission. Given their lower attrition, an increased mission of pretrained recruits could justify a reduction in the total number of recruits, but not in the early stages of a pilot since so little is known about the incentives necessary to attract and retain pretrained in sufficient numbers. Based on these reasons, option (a) is not practical.

While that makes option (b) preferable, both options have additional costs and risks. For instance, if the Navy found that it was not making the mission for regular recruits, it is likely that some or all pretrained-dedicated recruiters would abandon those efforts and instead recruit from the regular market, eliminating the potential to establish a recruiting presence and to understand how to recruit in the pretrained market.

An additional drawback to both options is that the cost of recruiting pretrained recruits would be rather high at first because almost all active duty enlisted recruiters are inexperienced in recruiting from this market. Inexperienced recruiters will tend to be “less successful” in a new market. Under current practice, all recruiters are paid the same amount; therefore, regardless of how many people they recruit, the cost per pretrained recruit will be higher with less experienced recruiters. Thus, while option (b) does not increase the risk of failing to meet the overall recruiting mission, while also satisfying the requirement of no competing goals for personnel involved in recruiting pretrained, it is still not optimal.

Proposed pilot

Significant progress in recruiting pretrained, in support of the CNO's vision of a smaller, more experienced, better educated, higher performing Navy, could be realized if the Navy conducts pilots that have relatively few risks and that require relatively few resources. Small-scale pilots are necessary to understand (a) what recruiting and marketing techniques work best in the pretrained market, (b) what types of incentives are necessary to attract and retain pretrained recruits, (c) how their civilian training can be optimized by the Navy, and (d) what type of career progression is appropriate for pretrained recruits.

To that end, we recommend a pilot that satisfies the simultaneous recruiting constraints and training requirements. The recommendation has the following major components:

- *Who to recruit:* Recent community college graduates or those in their final semester of an ABET-accredited electronics engineering technology Associate degree program.
- *Which ratings/programs:* Those with a significant electronics training component, to include at least the Advanced Electronics/Computer Field (AECF), AE, AT, CTM, EM EW/CTT, FT, GSE, IC, MT, and STS.
- *What training can be eliminated:* To be determined as part of the Sea Warrior effort.
- *Which recruiters:* Civilian contracted recruiters who are paid on a commission basis only.

We address these components in turn.

Who to recruit and into which ratings/programs

First, our previous research on recruiting pretrained indicated that recruits in the AECF and a number of other ratings had significant

training in electronics and related areas consistent with community college programs in electronics engineering technology [4, 5, and 6]. For instance, under the Navy College Program, the American Council on Education (ACE) recommends a substantial number of college credits for Sailors completing training in the ratings listed earlier in such subjects as AC circuits, DC circuits, solid-state electronics, and technical math.

Thus, these electronics ratings satisfy the criteria of having significant civilian overlap. They also satisfy the other criteria that we specified. Since we have conducted more research concerning the AECF program specifically, we will focus most of the discussion on that program for illustration purposes. Specifically, the remaining criteria are satisfied as follows:

- *A large civilian market from which to recruit.* There are 125 ABET-accredited Associate degree programs in electronics engineering technology in 2- or 4-year colleges across the nation.
- *A relatively large Navy demand for Sailors with these skills.* In FY04, the Navy recruited over 6,000 people for all of the ratings we noted; the largest of these are AECF and AV (comprising the AE and AT ratings).
- *A Navy training pipeline long enough to ensure that the savings per recruit exceeds the additional cost of recruiting.* The AECF Technical Core, which is the first segment of training for the AECF pipeline and one component that pretrained recruits would likely be able to reduce or eliminate, is about 12 weeks in length.¹⁰ There is potential for much more savings; the entire AECF pipeline training can take as long as 18 months.

We also specify that pretrained recruits should either be recent graduates or students in their final semester. We do so for a number of reasons. First, students in college are a large concentrated market, as opposed to recruiting electronics engineering technicians who are currently in the workforce and dispersed over a much larger geographic area. A concentrated market generally reduces the cost of

10. Source: www.nsgreatlakes.navy.mil/techcore.html.

recruiting. Further, encouraging college students to enlist before they complete their degrees is counter to both their professional goals as well as the mission of the community college. Recruiting college graduates from a community college fosters a mutually beneficial relationship between the Navy and the college; encouraging students to drop out creates an adversarial one.

What training can be eliminated

Our second reason for recommending that recruits be recent, or soon-to-be, graduates is the need to simplify the pilot. Narrowing the pilot to those with little or no work experience allows the Navy to minimize the number of different training paths necessary for recruits in the pilot. In addition, by confining the pilot to accredited programs exclusively, similar in spirit to the HM experiment, the Navy can be relatively assured of a consistent body of knowledge and skills of these graduates, thereby minimizing the need for multiple tests of KSAs. Those who pass the placement test would begin training at the same place in an accelerated pipeline. For those who fail, the Navy may want to identify specific weaknesses and attempt to remediate them before administering the test a second time.

A thorough understanding and inventory of the KSAs necessary for the ratings, as well as the KSAs common in the accredited programs, is fundamental to this process. It also may require new Navy training courses for these pretrained recruits, or new recruits may be able to be inserted in preexisting courses.

These are not easy tasks, and in large measure this is why the Navy has done little to recruit pretrained in the past. The Sea Warrior effort is already working on similar types of efforts, however. In August 2004, for instance, the Navy began phasing out the A-schools for several nonnuclear and nonsubmarine engineering ratings. Instead, these ratings, which include MM, EM, EN, GSM, DC, MR, HT, and GSE, will attend a Basic Engineering Common Core (BECC) school. On completion, some ratings will have short follow-on training, while others will go to the fleet with no additional training.¹¹ Similar to the AECF

11. Source: NAVADMIN 128/04.

Technical Core Fundamentals, this is a recognition of the fact that these ratings have a significant amount of overlap in components of their training.

More relevant to our proposed pilot is the one begun in October 2003 by the Center for Surface Combat Systems that includes several of the ratings we recommend here: FC, ET, GSE, STS, EN, IC, AE, and AT. This was a pilot with 90 Sailors using a computer-based training program called Electricity, Electronic, Communications and Radar (EEC&R) that will eventually be used by all ratings with significant EEC&R-related competencies. According to an article in the *Navy Newsstand* [10], in the near future, this type of “self-paced interactive courseware will be just a click away.” It may be possible to build on these efforts in designing the pilot we propose here.

So far, all of our recommendations for a pilot have been fairly restrictive. We feel these are necessary restrictions to maximize the probability of a successful pilot—one in which the Navy can fine-tune strategies for a more widespread implementation, with the fewest risks and costs. However, these restrictions do not necessarily have to remain in place after a pilot has been conducted and a wider implementation of the strategies is deemed desirable. For instance, with enhanced procedures to test the KSAs of recruits and more modular training, more electronics-related ratings could be added, and the recruitment of pretrained individuals in electronics engineering could expand to include all Associate degree programs, regardless of accreditation, and college graduates with significant work experience. An expansion of the market increases the pool of eligible recruits significantly; according to the 2000 Census, there were more than 8,500 citizens under the age of 25 with an Associate degree in electronics engineering technology and related fields.

In considering any expansion to include those with significant experience, the tradeoff between the costs and benefits of recruiting pretrained remains a fundamental consideration. The recruitment of pretrained civilians with increasingly more experience will be more costly. We will address some compensation issues later.

Which recruiters

As we noted earlier, Navy recruiting is undergoing some significant changes. Any pilot that adds to the burden placed on recruiting during this time of transition will have little chance of success. Our goal is to ensure that enough pretrained can be recruited to test the key components of the strategy—that is, how to assess the KSAs of pretrained recruits, create alternative training pathways for them, and get them to the fleet faster. We believe that using civilian recruiters for the purpose of the pilot maximizes the chance of recruiting a sufficient number; it is not necessarily a permanent strategy, but it may yield some useful lessons learned.

We propose civilian recruiters for the pilot for a number of reasons. In particular, Navy recruiters are inexperienced when it comes to recruiting pretrained, and as we noted earlier, most recruiters are uncomfortable recruiting from community college campuses. Using Navy recruiters for the pilot, therefore, would not include recruiters with experience or expertise in recruiting pretrained in general, or electronics technicians specifically.

Using Navy recruiters would also require a significant investment on the part of CNRC to develop training, advertising, establish relationships and networks with civilian Centers of Influence in the selected colleges, and so on. It would take a considerable amount of upfront time and resources, causing significant delays in the pilot. Further, depending on the number ultimately recruited, the costs of using military recruiters could prove to be very high.

In contrast, the civilian recruiting model typically involves specialization in one professional field, such as engineers, medical professionals, and actuaries, so that expertise and networks are firmly established. Such specialization helps to ensure that a recruiter understands the qualifications and personal characteristics that both the employer and the employee are seeking. This helps to optimize a match and to improve the outcome for all three parties: satisfied employer, satisfied employee, and a well-compensated recruiter. Only recruiters who are good at what they do will remain in the profession. This is reinforced further by their compensation; recruiting in the

civilian sector is largely a commission-based salary structure, with recruiters being paid only for successful recruits, which typically includes a requirement that the new employee remain with the company for a specified period of time.

Our recommendation to use civilian recruiters exclusively to recruit pre-trained addresses both the recruiting difficulties in recruiting pre-trained and the risks involved in the pilot we propose. In particular, civilian recruiters with experience in this target market would require only minimal training from the Navy, to cover specifics of the pilot and of military recruiting in general, allowing for a faster implementation. And by only paying civilian recruiters for each recruit, rather than paying them a salary, the cost to recruit for the pilot is reduced. Finally, not using Navy recruiters eliminates the risk of failure to meet the recruiting mission that could result from diverting Navy resources to the effort.

Next we discuss the use of civilian recruiters—an approach that the Army has been actively testing for several years now.

Army's experience with civilian recruiters

The FY99 DoD Authorization Act urged the Secretary of Defense to conduct a 2-year test to determine the feasibility of outsourcing military recruiting and the cost-effectiveness of civilian recruiters versus the current way of doing business. That year, the Secretary of the Army began to contract with civilian guidance counselors and later expanded to include college recruiters and cyber recruiters.

The next phase began in 2001. The National Defense Authorization Act of FY01, Public Law 106-398, mandated that the Army conduct a 5-year experiment that replaced Regular Army and Army Reserve recruiters with contract recruiters in 10 recruiting companies to test their effectiveness; the companies would revert back to military recruiters after the 5-year test was complete. In the experiment, the civilian contracted recruiters were to replace company leadership as well as recruiters, and they were to have access to the same offices, facilities, and equipment as regular recruiters, but they were also subject to the same rules and chain of command as all other recruiters.

Little information is available on the progress to date of these experiments. However, according to a brief presented in January 2002 to the Joint Accessions Group (JAG), the Army found that reserve contract recruiting had been very successful up to that point; two contract recruiters would have been Recruiters of the Year in FY01 had civilian recruiters been eligible. Their conclusion for reserve recruiting was that performance-based contracts were the best method [11].

In January 2002, civilian recruiting for active duty Army had not yet begun. That experiment was to proceed in two phases. The first, to be initiated that month, was to include four of the ten companies chosen for the experiment, which would be in full production by May 2002; the second phase would add the remaining six companies, in July of that year, and go into full production in November 2002. In a May 2002 article in *Soldiers* [12], the Army noted that two companies—Military Professional Resources, Inc., and Resource Consultants, Inc.—had been recruiting for the reserve components since 1999 but that civilians were now going to recruit for both the active and reserve components in a number of places around the country.

Recruiting specifics

Building on the Army model, we recommend that the Navy contract with a civilian recruiting organization, such as the two noted above, to conduct a pilot to recruit pretrained electronics engineering technicians. In developing the policies and procedures, the Army should be consulted very closely, drawing heavily on its lessons learned. We discuss a number of additional options for consideration next, some of which draw on the officer and/or reserve recruiting model. In each case, the goal is to simplify the pilot to reduce the number of additional policies or procedures necessary for implementation. Our experience with Navy recruiting experiments is that increasing the complexity tends to reduce the probability of its acceptance and potential for success.

We make a number of recommendations about processing recruits. First, recruits with the qualifications specified for the pilot should not be required to take the ASVAB before accessing. If they are recent or soon-to-be community college graduates, it is virtually guaranteed that they satisfy minimum AFQT requirements for accession.

The other major recruiting purpose that the Navy has for the ASVAB is to screen out recruits who do not have a satisfactory probability of successfully completing the training in a particular pipeline. The fact that these recruits have been successful in an accredited electronics engineering technology Associate degree program is sufficient evidence of their ability to successfully complete training in that field. In addition, their perseverance through 2 years of postsecondary education is a good indication of their desire to be in that field, something the ASVAB cannot test. However, it should be a fairly easy task to have these recruits take the ASVAB while they are in bootcamp.¹²

Rather than the ASVAB, the recruiters should administer the test of KSAs for these recruits to determine whether they can be placed in an accelerated training pipeline. These tests could be administered online, similar to tests given in distance-learning college courses. If the potential recruit does not pass, remediation of certain components could be arranged by the civilian recruiter through a local community college, or through the Navy Knowledge Online, with retesting once remediation has been completed.

Processing a recruit through a Military Entrance Processing Station (MEPS) is a fairly time-consuming process. It involves medical pre-screening, classification, a reservation for bootcamp and A-school, signing of contracts, and swearing in. For recruits who have not already done so, it also includes ASVAB testing. We addressed administration of the ASVAB earlier, but the remaining procedures could also be modified so that pretrained recruits, and their civilian recruiters, do not need to go to MEPS for processing. In particular, civilian recruiters could use local (to the recruit) civilian doctors for medical screening,¹³ and conduct their own background checks on potential recruits. Fundamental to this streamlining is the recruiter's complete access to all of the necessary paperwork and personnel necessary to

12. The ASVAB serves a variety of purposes other than recruiting. We do not advocate that these recruits should not have to take the ASVAB once they are on active duty.

13. Recruits are screened by a doctor when they are first recruited, as well as on the day they ship to bootcamp. Civilian doctors could be contracted to do both.

fully process recruits. For instance, waivers would still have to be obtained at the proper level, but civilian recruiters should have access to the NRD CO or Enlisted Community Manager (whoever is necessary for that level of approval). In addition, educational credentials could continue to be verified by NRD Education Specialists (EdSpecs). However, these recruiters should be vested with the right to sign contracts, administer oaths, and so on.

To streamline the process further, and to save costs of recruiting, civilian recruiters should be able to book the recruits for a ship date and a seat in the accelerated A-school pipeline. This could be accomplished by giving these recruiters separate access to PRIDE, allowing them to call classifiers to have them book the recruit, setting aside a certain number of seats each week for these recruits, and so on.

If the preceding recommendations are adopted, neither recruiter nor new recruit would need to go to MEPS, either when the recruit signs a contract or at the time he or she ships to bootcamp. Instead, the recruiter should be given funds to secure the recruit's transportation to bootcamp.

This modified recruiting procedure might prove to be more cost-effective than the current way of doing business. For instance, recruiters now spend most of a day driving a recruit to the local MEPS, and standing around while the recruit takes the ASVAB, is given a physical exam, and is classified. In addition to their time, the process involves the cost of travel, meals, and sometimes lodging, depending on how far away the recruit lives from the local MEPS. While this modified approach is not practical for all recruits, it might be more efficient for other categories of recruits besides pretrained.

Finally, as we noted earlier, the Army concluded that performance-based contracts were the most cost-effective method for civilian recruiters. Therefore, these civilian recruiters should be paid for each successful recruit, with incremental amounts paid when specific milestones are reached. These milestones could include signing a contract, shipping to bootcamp, completing bootcamp, completing training, and completion of initial obligation. The sum of these payments should be based on the total cost to the Navy to recruit one high-quality recruit.

A compensation strategy that is based on successful attainment of milestones may have an additional benefit. In particular, with this type of financial incentive, recruiters may devote more time and effort to ensuring that the recruit ships and is adequately prepared, both mentally and physically, for bootcamp and additional training. This provides another mutually beneficial outcome; the Navy reduces costly attrition, the recruiter receives higher pay, and the recruit is more satisfied with his or her initial Navy experience.

Additional issues with the pilot

A number of issues would need to be addressed concerning a pilot; here we note two.

Civilian recruiter issues

First, we have discussed only the benefits of civilian recruiters and not the potential drawbacks. For instance, civilian recruiters may not be able to answer all of the recruit's questions. Career progression and compensation issues can be researched and answered by civilians; questions concerning military life cannot. Again, the Army may be able to provide valuable lessons learned to help address these issues. Solutions may include using retired military or reservists as the recruiters, or using active duty Sailors to answer these types of questions. For instance, CNRC uses recruiters assigned to cyber recruiting to answer questions posted to the Navy's recruiting Web site or to online job sites.

Compensation

A second issue concerns what incentives and compensation schemes are necessary to attract and retain pretrained recruits. The answer to these questions is largely a function of the alternative employment options available to pretrained recruits. Since all recruits with 45 semester hours of college credit access as E3s, regardless of their program of entry, these recruits receive higher pay from the beginning. This may or may not be enough, and we recommend additional research to estimate what compensation may be required. As a benchmark, according to the 2000 Census, the average salary of electronics

engineering technology Associate degree graduates under the age of 25, working full-time, was approximately \$32,000 in 2004 dollars. In comparison, the FY05 Regular Military Compensation of an E3 without dependents and with 1 year of service is virtually the same at \$31,800. Additional incentives may be necessary, however, if military service is considered to be less desirable than civilian employment for people in these occupations, or if military pay increases associated with experience and promotion do not parallel those in the civilian sector.

We discuss some additional compensation issues next, especially as they pertain to alternative schemes to compensate civilians with college degrees and/or significant experience.

Differentials in compensation are possible in a variety of ways, and they can be differentiated by whether they are in the form of a lump sum or a stream of payments. Lump-sum recruiting incentives include enlistment bonuses (EB) and the College Loan Repayment (LRP). EBs are offered to recruits in a variety of critical ratings, as well as in the form of a “kicker” for those with college degrees. The congressional limit on EBs is \$20,000, and all pretrained recruits would be eligible at least for the college kicker EB, currently at \$4,000 for accessions with an Associate degree. Certainly, if it were deemed necessary to attract a sufficient number, these pretrained recruits could be offered the maximum of \$20,000 in EB.

Under the LRP, the Navy repays federally funded student loans, one-third of the total being paid at the 12-, 24-, and 36-month anniversaries of the date the Sailor went on active duty. The legislation prohibits recruits who accept LRP from also receiving the Montgomery GI Bill (MGIB) in their first enlistment. The Navy has budgeted very little for LRP, but each recipient is eligible for repayment of up to \$65,000 in loans, although the median indebtedness for Associate degree graduates in 1999-2000 was less than \$6,000 [13]. For most pretrained recruits, then, a \$20,000 EB would be far preferable, especially since they could also take advantage of the MGIB in their first enlistment if they took the EB vice the LRP.

Two other enlistment incentives that may be appropriate for this market offer a stream of benefits rather than a lump-sum payment.

The Navy College Fund is a supplement to the MGIB program that is paid monthly while Sailors are enrolled in qualifying postsecondary institutions. Pretrained recruits with Associate degrees in an engineering technician programs may find this an attractive option if they want to pursue a Bachelor's degree, which in engineering can often require more than the typical 4 years of undergraduate study.

The second enlistment incentive that is in the form of a stream of benefits is the Navy College Assistance/Student Headstart (CASH) program. CASH is a recruiting program that is used for high-tech fields, particularly the Nuclear Field and several of the ratings we propose in this pilot. Recruits in this program are on active duty, receiving pay and allowances, while attending accredited colleges or universities for up to 12 months. This could be an attractive option for a pretrained recruit who is in the last semester of an Associate degree program.

Precisely which of these incentives, or combination thereof, would be required to attract a sufficient number of pretrained recruits would require analysis, as well as perhaps a trial-and-error approach similar to what the Navy has used in setting the level of Assignment Incentive Pay (AIP).

A number of nonrecruiting compensation tools are also at the disposal of the Navy. For instance, in addition to basic pay that varies by paygrade, Sailors are paid varying amounts based on their geographic location, number of dependents, and by special duties or skill level. Examples of the latter, called Special Duty Assignment (SDA) pay, are Sailors on recruiting duty, in the Nuclear Field, and on submarine duty.

Other than the college kicker EB, the Navy has traditionally considered compensating pretrained or lateral entrants at a higher level only by accessing them at higher paygrades. This is the only option under both the Lateral Entry Accession Program and the Direct Procurement of Enlisted Personnel, and the only option considered in the HM experiment. While accession at higher paygrades provides higher compensation, it is generally viewed unfavorably by Navy personnel for a number of reasons, which we address next.

In civilian businesses, lateral entry is common and is based largely on occupation-specific experience or, in some cases, in combination with industry-specific experience. On one hand, engineers can typically transition in and out of manufacturing, construction, or transportation industries with little or no loss of seniority. Those in law enforcement and firefighting, on the other hand, would tend to require both occupation- and industry-specific experience to change jobs at a lateral, or even higher level.

The military is unique in that occupation-specific experience is almost entirely discounted. Instead, lateral entry depends not on industry-specific but on firm-specific experience. To illustrate, consider the Navy's policy on recruiting Navy veterans (NAVETs) or other Service veterans (OSVETs). First, relatively low caps are put on the number of prior-service accessions allowed each year, even in difficult recruiting climates, such as FY98 when the Navy missed its recruiting goal by 7,000.¹⁴

The requirement for firm-specific (Navy) experience vice industry (any branch of the military) experience is evidenced by the fact that the Navy has different policies concerning paygrade at accession depending on the branch of the Service in which the veteran served. According to the recruiting manual (COMNAVCRUITCOMINST 1130.8F), to be eligible to enlist in the Navy, OSVETs must qualify for one of a limited number of undermanned ratings or programs that are specified by the Enlisted Community Managers (ECMs), and have no more than 5 of 6 years of broken service (depending on paygrade at time of separation). Discounting both other Service and civilian work experience, OSVETs who separated at a paygrade of E3 and above are accessed into the Navy at one paygrade lower than that held

14. In 2004, for instance, there were 305 prior-service accessions—less than 1 percent of enlisted accessions. In contrast, 14 percent of FY82 accessions, representing 13,000 recruits, were prior service. And in FY99, to address the recruiting shortfall of the previous year, the Navy increased the cap on NHSDGs from 5 to 10 percent of accessions, yet the percentage of prior-service accessions increased only from 2 percent to 3.5 percent in FY99 (source: <http://www.dod.mil/prhome/docs/nps05.pdf> accessed March 2, 2005).

at last discharge, but not lower than E3. Any OSVET wishing to reenlist who separated at a paygrade of E5 or higher needs approval by the cognizant ECM.

NAVETs have their prior Navy and civilian experience discounted only slightly less than OSVETs. First, similar to OSVETs, NAVETs may only reenlist in undermanned ratings. While we do not have access to this information, restrictions on paygrades for each rating are also maintained by the ECMs. However, the recruiting manual does specify that, if a NAVET was frocked at the time of discharge, he or she may request reenlistment in the frocked paygrade only if reenlisting within 6 months of discharge and in the previously held rating. For instance, a NAVET who had been frocked to an E5 at the time of separating, and who had spent 4 years in the civilian sector in the same occupation that he or she had in the Navy, would not be able to reenlist at the same paygrade; if the experience were only 3 or 4 months, however, he or she could do so.

Additional evidence of the Navy's discounting of occupation-specific experience in favor of Navy-specific experience is its policy concerning the paygrade of Sailors who crossrate. For instance, Navy Counselors (NC) and, until recently, Master-at-Arms (MA) were two ratings that only Sailors in advanced paygrades could qualify for; they were not accession programs. Regardless of whether the Sailor had been a CTM, ET, SK, or YN, Sailors crossrating to either of these ratings retained the same paygrade. To put this in perspective, this would be comparable in the civilian sector to an administrative assistant, on receiving training in a police academy, being hired by a police department at the level of a Police Lieutenant. Such a scenario is highly unlikely.

We have found strong opposition from senior leadership to access recruits with no military experience at paygrades higher than E3, or to accelerate their promotion. For instance, in addition to restricting accession at higher paygrades to ensure that leaders have a thorough understanding of Navy culture that comes with experience, Navy personnel involved in setting policy for the HM experiment told us that accessing pretrained HMs at higher paygrades was out of the question because it would be demoralizing to Sailors with comparable skills

who, because of the very slow promotion of HMs, could not advance to a higher paygrade.

This policy of requiring firm-specific recent experience to climb the ranks in the Navy should be given careful consideration as part of a comprehensive Human Capital Strategy. In particular, what role does this policy serve in terms of the overall Navy mission? Does it support and enhance warranting capabilities, and what effect would an alternative rank structure have on such capabilities? What impact does this policy have in terms of recruiting and retaining high-quality, civilian-educated and experienced civilians, and the Navy's ability to significantly change the force structure? Would alternative career paths be preferable, in which Sailors are offered different entry and exit points in their careers (and perhaps even reentry) or different compensation options, including different retirement benefits?

Some of these issues are being addressed in a CNA study of lateral entrants, but there is no question that rank and promotion policies must be a cornerstone of a comprehensive Navy Human Capital Strategy.

We do not believe that a pilot should be delayed while waiting for a comprehensive Human Capital Strategy to settle the issue of rank for pretrained recruits. Given current Navy culture, it may not be possible to access pretrained recruits at a rank higher than E3. If so, current caps on enlistment incentives may not be high enough to attract these civilians. Or enlistment incentives, because they are paid early in the first enlistment, might not be adequate. If so, we suggest that the Navy consider something comparable to SDA pay to differentially compensate pretrained Sailors in this pilot.

Conclusion

Navy personnel are tasked with challenging default manpower strategies in order to realize a future Navy manned by fewer Sailors who have a broader base of knowledge and who are more technically trained and skilled. Deeply entrenched in the Navy culture is the notion that only Navy-trained, Navy-experienced personnel can do Navy jobs—including the job of recruiting—and past experiments to recruit pretrained people have met with little enthusiasm. The vision of a comprehensive Human Capital Strategy, coupled with the revolution that is already occurring in training, makes this an optimal time to design some small-scale pilots that challenge these long-held notions. The pilot described in this paper would allow the Navy to better understand the following:

- How to recruit pretrained personnel, in general, and how to use civilian recruiters to do so
- How to assess pretrained recruits' KSAs and either insert them into a preexisting training pipeline or design alternative ones
- How to retain and put these valuable recruits to the best use—all at minimal risk and expense.

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