

WORKING P A P E R

Potential Recruits Seek Information Online for Military Enlistment Decision-Making

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Keywords: recruiting, enlistment, information seeking, online, Internet, decision-making

Abstract

How do potential recruits decide to enlist in the military? What information do they seek on which to base career decisions? The Internet increasingly provides a medium for advertising and communication with recruiters and other potential recruits. We explored the influence of online communication on enlistment decision-making. Analysis of recent Army new recruit surveys showed that a sizeable proportion of recruits have encountered Army advertising or sought recruiting information online. We also examined online discussion forums – in which soldiers and prospective soldiers ask questions, trade insights, and vent frustrations – for postings indicating information seeking for enlistment decision-making. Potential recruits were most interested in recruiting processes and what to expect from a military lifestyle, seeking opinions and details on job functions, duty stations, and benefits. These findings suggest that potential recruits may seek information online when unable or unwilling to find it from military websites or talking to recruiters.

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INTRODUCTION

Where do job seekers look for information to make career decisions? What career information do they find valuable? The growth of the Internet has dramatically increased the amount of information potentially available to job seekers, particularly those interested in joining the military. This greater availability of information may result in more knowledgeable recruits for employers, and may also benefit potential employees by helping them make better-informed decisions about their career. The uniqueness of the armed forces may mean that people require a particularly great deal of information when considering a career in the military. Increasingly, they may be turning to the Internet to find this information. The existing literature on military recruitment and enlistment decision-making, however, contains little to explain how potential recruits gather and use military career information in general, and even less about online media in particular. This paper thus seeks to uncover the types of information potential recruits consider important in their decision-making.

The Internet's Influence on Job Information Seeking

For generations, job seekers relied heavily on classified print advertisements, employment agencies, and networks of personal relationships for information about job opportunities. While traditional employment resources retain varying degrees of importance, much of the process of seeking employment or employees has moved to online channels. This is made possible, first, by reductions in employers' job-advertising costs that have perhaps improved the quality of career information flows in either direction. Most companies have websites, and it costs them comparatively little to post job announcements directly to their own sites. Similarly, it costs little or nothing for interested job seekers to submit resumes and applications on those sites. The result is an increased ability for employers and job seekers alike to target their efforts.

The Internet may also help job seekers decide where to apply, facilitating the process of anticipatory socialization into a new career or position. Career websites such as Craigslist, Careerbuilder, and Monster.com fill many roles formerly played by newspapers and employment

agencies, and career-oriented social networking sites and discussion forums supplement personal relationships by permitting job seekers to obtain information about employment conditions within specific industries and even individual firms. Processes of socialization and information acquisition may take place on these discussion or social networking sites, perhaps to a greater extent than is possible from other sources. In contrast, a recent survey of Fortune 100 companies' websites concluded that lack of available candid information encouraged "favorable, rather than accurate beliefs" about a company,¹ which could lead to poorer anticipatory socialization. This may lead job seekers to place greater importance on sites such as unofficial forum-type sites, rather than official corporate websites.

The combination of large, career-oriented sites along with companies' own websites has dramatically increased the amount of information available to job seekers. Yet online career information is only valuable to the extent that it is widely accessible. Another factor spurring the online shift of the employment-seeking process is rapid growth in the availability of high-speed home Internet.² As a result, use of the Internet to search for job information has surged. A 2002 Pew Internet Project survey found that 52 million Americans had searched online for job information, an increase of more than 60 percent over the previous two years.³ Nielsen//NetRatings, an Internet market researcher, reported that 17 million Internet users had logged on to a career website in just the month of April 2003. In sum, the Internet is becoming increasingly popular for job seekers looking for career information, perhaps because it provides greater and more candid information than was previously available. These increased opportunities for communication and information sharing may serve to facilitate potential employees' socialization into a new company or field.

Enlistment Decision-Making Requires Information Seeking

The Internet may be of particular value to military job seekers, given the institutional context of military service. This owes to the uniqueness of the armed forces as both employer and institution, in both Goffman's⁴ sense that members' public and private lives are inextricably linked, and Moskos's⁵ sense that remunerative policies more strongly reflect a social contract

between member and organization than do market forces. While it has been argued that since the end of conscription in the U.S. the armed forces have become increasingly occupational in character,⁶ military service nonetheless retains many institutional characteristics (e.g., work and home activities frequently occur in the same places, large portions of wages are paid in-kind, and members are expected to yield high degrees of personal autonomy to the collective life). Thus the “fit” between the organization and its member is critical to individual job performance and satisfaction. The importance of the organization/person fit is further enhanced by the fact that members are contractually obligated to a minimum term of service. Finally, as the portion of Americans with military experience shrinks – that is, as the adult population grows and as mortality rates increase among the once-large cohorts of aging veterans, job seekers are likely to have fewer personal contacts from whom they can obtain firsthand knowledge about service in the armed forces.⁷ However, a post-9/11 increase in younger veterans may have offset this trend somewhat, and narrowed the civil-military culture gap.⁸

Information seeking for enlistment decision-making is poorly understood. A key missing piece in understanding enlistment decision-making is how people obtain the information with which to choose a career that will best fit their values, preferences, abilities, and motivations. Although military career information may be highly valuable to job seekers, the way in which people gather information about military employment has yet to be studied in depth. In contrast, a large existing literature debates, with competing theories, the factors that can sway enlistment decisions. Researchers have linked trends in enlistments, for example, to the business cycle and to the relative attractiveness of military pay,⁹ and have developed typologies of enlistment motivations that include not only extrinsic rewards such as pay and benefits, but also intrinsic rewards, such as citizenship and altruistic factors, and personal growth.¹⁰ Pay or working conditions, for instance, are insufficient explanations, as belied by findings that African-American military recruits have characteristics that put them “on par” with their college-attending peers¹¹ and who arguably have relatively strong labor market potential.

Much of the current literature on joining the military focuses on similar debates of the relative influence of economic vs. non-economic or normative factors. In doing so, this research

collectively assumes that individuals engage in the same self-interested decision-making processes that occur in the civilian marketplace.¹² That is, individuals choose careers according to their own preferences and abilities, which may include either economic or non-economic motivations. Yet people still need information with which to make decisions to account for their preferences and values. Little is actually known about the processes by which individuals develop knowledge about their employment options, and what information is used to evaluate alternatives. The existing enlistment decision-making literature does not address the necessity for such information. For instance, Segal's assertion that military service is generally conceptualized as "pragmatic professionalism"¹³ relies on surveys that ask individuals how they conceptualize their jobs, without exploring why they feel that way or how they came to their perceptions. What needs to be better understood are both the information seeking processes and the types of information generally sought for enlistment decision-making.¹⁴

Information on Military Careers is Increasingly Available Online

In the last several years, online information about both military career opportunities and the institutional aspects of military service has bolstered the resources available to people interested in joining the military. Traditionally, the U.S. military services have relied heavily on mass media advertising and targeted outreach by recruiting personnel,¹⁵ emphasizing self-improvement and material incentives.¹⁶ Comparatively less attention was paid to providing information that would permit military job seekers to assess their career preferences and fit with the military. Fortunately for military job seekers, such information is increasingly available on the Internet.

The U.S. Army in particular appears to have recognized the importance of an online presence to gather and disseminate recruitment information. Television ads point viewers to the official U.S. Army recruiting website (GoArmy.com). Visitors to GoArmy.com can find information about Army careers, chat with and request contact from recruiters, and communicate with other website visitors via a forum section (more about which later). Official military recruiting channels on YouTube feature professionally made videos.¹⁷ The Army has even distributed a popular

online video game (America's Army) that simulates military experiences, allowing players to train for various specialties and engage in combat with other online players. Indeed, according to Army spokespersons, "the Web has become an essential part of what we do' to reach younger Americans,"¹⁸ with a coordinated advertising campaign across blogs, social networking sites, and chat rooms. Much unofficial, non-Army-propagated information is readily available online as well. For example, on personal blogs, soldiers deployed in Iraq post about their daily lives, while others offer opinions and analysis of current events.¹⁹ Thus, along with official websites, a great deal of military job-focused content is available to job seekers.

How Do Potential Recruits Use Internet Resources for Enlistment Decision-Making?

Although a great deal of military career information is available online, it is unclear the extent to which 1) this online information is used – that is, whether job seekers are aware of it, or 2) the information is valuable – that is, whether it addresses what job seekers want to know. The present research explores, broadly, the process of seeking military career information. Given the importance of matching people to organizations, the Internet appears to be a valuable source of information for individuals to learn more about the unique aspects of military service – its culture, duties, and lifestyle. Thus, in particular, this paper examines how potential military recruits use Internet resources in deciding whether or not to join the U.S. military, considering the following questions: 1) to what extent do military recruits use Internet resources in their decisions to enter the military, and 2) what types of information are important to persons considering joining the military?

First, we analyzed survey data on new Army recruits' exposure to information and advertising sources prior to their decision to contact an Army recruiter and begin the formal process of enlisting. Second, we analyzed how potential military recruits use Internet resources to obtain specific information about military life and the process of joining the military. We focused primarily on Internet sites that may augment personal contacts for information about the military experience: public, online discussion forums specifically oriented towards recruitment and enlistment issues. On these forum websites, users post questions about joining or serving in the

military, and receive responses from other users. These forum participants may be prospective recruits, but also frequently self-identify as current servicemembers, recruiting personnel, or military veterans. The content of questions posted on two military recruitment forums was analyzed to determine the types of information sought by forum users. One of these was an official website of a U.S. military service, the other a non-official, privately-run domain.

Because this research is primarily exploratory, the method of online forum analysis is designed to categorize questions posted by users (potential recruits as well as individuals simply interested in the military). The relative frequency of questions in each of these categories should provide insight into the qualitative factors that influence the decision to join the military. The results from both of these analyses (survey and forum data) can also inform military services' information dissemination efforts by indicating areas of concerns that are currently underemphasized or incompletely addressed. And although the present focus is on enlistment in the U.S., the lessons learned may also be applicable to military job seekers in foreign contexts, particularly in advanced, industrialized nations that rely primarily on volunteers to fill their military ranks.

METHOD

Quantitative as well as qualitative approaches were employed to explore the influence of online communication on enlistment decision-making.

Army Survey of New Recruits

Data contained in the U.S. Army Recruiting Command's (USAREC) Survey of New Army Recruits may address the extent to which recruits view the Internet as an important information source. This survey collects information about recruit demographics and marketing/advertising exposure, as well as motivations for joining the Army. It is administered annually to a random stratified sample of individuals who have recently enlisted in the Army or accepted a commission as an officer.²⁰ The response rate in 2005 was 39.7 percent. To ensure that these respondents' data were demographically representative of new Army recruits, the results were weighted using

sex and race/ethnicity information (these weights were provided with the survey).

Previous versions of the survey included questions about recruits' exposure to traditional media (e.g., print, television, radio, etc.) and interpersonal sources of recruiting information (e.g., friends). The most recently available version (2005) of the survey added response options related to online sources. The survey contained two questions specifically relevant to the importance of online information to these recruits:

Exposure to Army advertising. In one question, the survey asked respondents: "Do you remember seeing, hearing, or receiving any advertising or promotional materials before you enlisted? (mark all that apply)" The following response options were provided:

- No
- Yes, on television
- Yes, in a magazine
- Yes, on the radio
- Yes, the help wanted section of the newspaper
- Yes, in other parts of the newspaper
- Yes, in the mail
- Yes, in a recruiting station
- Yes, at school
- Yes, from a friend
- Yes, on the Internet
- Yes, at the movie theater
- Yes, on a military recruiting Web site
- Yes, at an Army-sponsored event
- Yes, but none of the above

Survey respondents' answers to this question served as one of the dependent variables. To indicate the source of advertising exposure, responses other than "no" were coded into fourteen dichotomous variables indicating whether or not a recruit was exposed to each source of information.

Information sources important in enlistment decision. Survey respondents were also asked: "How important was each of the following to your decision to see a recruiter about enlisting in the ARMY?"²¹ The respondents were asked to rate each of the following items as "very important," "somewhat important," "neither important nor unimportant," "somewhat unimportant," or "very unimportant":

- Information from an ARMY ad in a magazine
- Information I received in the mail after I sent in a card or called a toll-free number in response to an ARMY ad
- Information I received in the mail from the ARMY (which I had not requested)
- Information posted at school
- Information from the recruiter who contacted me and sold me on the idea
- Information I received on the Internet
- Information from an ARMY-sponsored event
- Information from an ARMY ad on the radio
- Information from a friend who enlisted
- Information from an ARMY ad on TV
- Information from GoArmy.com

As with the survey question about military advertising, respondents' answers regarding the relative importance of various information sources served as a dependent variable. The order of the responses was retained by assigning numbers to each (e.g., 1 = "very unimportant," 5 = "very important"). These information sources were then ranked according to their mean scores. Additionally, we used ordinal logistic regression analysis to explain demographic variation in advertising exposure and relative importance. Because the amount of time a person spends online may have implications for their exposure to online information, we also included an ordinal measure from the survey of respondents' Internet usage, coded as 1) less than 3 hours per week, 2) 3-6 hours per week, 3) 7-13 hours per week, 4) 15-21 hours per week, 5) more than 21 hours per week.

Media exposure – particularly, exposure to electronic media – and the relative importance of advertising in military recruiting may vary across demographic groups.²² For example, younger recruits may use the Internet more than older recruits,²³ and therefore have more exposure to military recruiting websites. More educated or higher-aptitude recruits may also have more electronic media exposure, but may also be less likely to attribute their enlistment decision to the influence of advertising. To explore the effect of recruit characteristics on both advertising exposure and the importance of various decision factors, the survey responses were analyzed using logistic regressions for each variable across race/ethnic categories (white; black; Hispanic; and other),²⁴ educational attainment (less than a high school diploma; high school graduate; any

college experience), sex, age, and percentile scores on the Armed Forces Qualification Test (AFQT), a standardized reading and math aptitude test that is used to determine eligibility to join the military and to qualify for certain military occupations.²⁵

Military Recruitment Forums

One drawback of using survey data to understand the effectiveness of advertising efforts and information sources is that the survey selects on the dependent variable – the responses indicate nothing about, for example, the types of advertising exposure or information sources for individuals who decided *not* to join the military. We therefore examined online discussion forums – official and unofficial channels through which both prospective recruits ask questions, trade insights, and vent frustrations – which can provide a broader range of opinions about the information that potential recruits consider important. In these forums, people seeking information about a given topic post a message to a new thread, to which others may reply. Respondents may be acting in an official or unofficial recruiting capacity, or may simply be other users merely sharing their insights and participating in the “community” of the website. We focused on initial posts that initiated new discussion threads, as the primary purpose of this research was to investigate information seeking.

The advantages of analyzing information from these forums are twofold. First, computer-mediated communication affords anonymity, which may produce more honest or truthful responses than survey, interview, or focus group data.²⁶ Such forums may be preferred by Internet users who are entirely comfortable with such user-generated content and suspicious of official websites. Indeed, official career information sources, such as current career choice material and guidance counselors, are often distrusted or perceived as useless.²⁷ Second, the open-ended content in these forums is well suited to the exploratory nature of this research. Similar approaches have profitably employed online search behavior to examine job seeking in general. Jansen and colleagues, for example, analyzed job-related web searches and identified a number of popular search terms.²⁸

To ensure a representative sample, we analyzed threads from two forums: one from an

official website of a United States military service (the U.S. Army's GoArmy.com²⁹), and one from a non-official, privately run domain that focuses on military issues (Military.com³⁰).³¹ Army-related websites for active-duty personnel were chosen to ensure that the population was most similar to that from which respondents in the Survey of New Recruits were drawn. Military.com was chosen as the non-official military forum because it was the highest-ranking result of a Google search using the keywords "military" and "forum."

Each of these two forums is organized with discrete sub-forums separating discussion for specific topics (e.g., "Joining the Military," "Military History"). Topical sub-forums in each website were chosen that focused on military careers, joining the military, and general discussion about the military. These sub-forums were then sampled for message threads indicating that individuals were seeking information on which to base enlistment decisions.

One hundred threads from each website were randomly sampled in January 2007. Initial posts – questions or complaints – for each thread were recorded, along with page views and number of responses to each initial post, if available. Each sub-forum displays a certain number of threads (e.g., 25 or 50) on a page, and then displays enough pages as necessary for all threads. Within a sub-forum, the appropriate number of page numbers (in proportion of the sub-forum's posts to the total forum's posts) was randomly selected. Finally, threads within each page were randomly sampled.

Each author independently coded each of the 200 initial forum posts (including both title headings and text) into coherent themes. First, each author read through the entire set of sampled posts and created categories to describe the nature of recruiting information sought (e.g., length of basic training, civilian career opportunities). Each post was then coded as a "recruiting question" to indicate whether or not it fit into each of these categories. A post could be coded as belonging to multiple categories, but was only coded once for any given category. Next, the authors discussed each post one-by-one, reconciling differences where possible. In total, there were 29 types of questions, which were then further grouped into six larger categories (see Table 1). The 200 posts were then recoded according to the different categories about which a forum user sought information (shown under "Categories of Forum Questions" in Table

1)³².

Table 1. Categories of Forum Questions

Categories of Forum Questions	Types of Forum Questions
<i>Qualifications (formal procedures, eligibility, etc.)</i>	1) Legal issues (e.g., DUI) 2) Medical issues (health, physical issues) 3) Education requirements (e.g., GED) 4) Minimum test scores 5) Attending ROTC, West Point, OCS
<i>Difficulties/capabilities/challenge/uncertainty about abilities</i>	6) What to expect (e.g., “What would I be doing?”) 7) How to get in shape
<i>Recruiting processes</i>	8) DEP – including how long until recruit can/must ship 9) Underage at entry/contract 10) Testing procedures 11) Paperwork 12) How to get more information 13) Bonus, loans eligibility 14) Changing services, prior service return 15) Recruiter trustworthiness (validity/reliability of information)
<i>Military lifestyle</i>	16) Career opportunities (civilian and military) 17) Differences in occupational specialties 18) Duty station conditions/locations 19) Housing/benefits/pay 20) Educational opportunities 21) Family issues 22) Training 23) Deployment
<i>Dealing with influencers</i>	24) Convincing parents, spouses, etc.
<i>Non-recruiting</i>	25) “Good Samaritans” (e.g., current soldiers offering advice) 26) “Support the troops” statements 27) Political statements 28) Inquiries about other recruits’ ship dates/destinations 29) Random

RESULTS

Army New Recruits Survey

Recruits’ responses to survey items about 1) exposure to online advertising and 2) importance of various career information sources provide insight into the extent to which online information was influential in enlistment decision-making. First, a sizeable proportion of the respondents had been exposed to Army advertising on the Internet. Table 2 shows, for each information source, the proportion of recruits who reported “seeing, hearing, or receiving any

advertising or promotional materials” before they enlisted. Television advertising was by far the most prevalent information source viewed by respondents, cited by approximately 95 percent of all recruits. Of the twelve information sources, the Internet ranked sixth (47 percent) and military-specific websites ranked ninth (37 percent). Fifty-five percent of the recruits had seen either Army Internet advertising or military-specific websites, and 28 percent reported exposure to both sources of information.

Table 2: New Recruits’ Sources of Exposure to U.S. Army Advertising

	Mean	SE
TV	0.95	0.006
Recruiting station flyer	0.66	0.012
School flyer	0.62	0.013
Direct mail	0.58	0.013
Internet	0.46	0.013
Friend	0.43	0.012
Radio	0.39	0.012
Website	0.36	0.012
Event	0.19	0.010
Movie theater	0.193	0.011
Newspaper	0.163	0.011
<i>N</i>	2,325	

Note: Data weighted by race/ethnicity and sex.

Recruits were also asked to rank the information sources they used in their enlistment decision-making. Table 3 shows the relative importance of various sources in the decision to see an Army recruiter, a key step in the enlistment process. Personal contact with a recruiter ranked highest, while the official Army website, GoArmy.com, ranked second highest. Other Internet advertising ranked as the fourth most important in recruits’ enlistment decision-making.

Table 3: Importance of Information Sources to Enlistment Decision

	Mean	SE
Recruiter	3.93	.038
GoArmy.com	3.05	.035
Friend who enlisted	3.05	.039
Internet	2.88	.035
TV ads	2.64	.033
Flyer	2.50	.032
Brochure	2.44	.031
Direct mail	2.42	.031

Sponsored event	2.33	.031
Magazine ads	2.31	.029
Radio ads	2.21	.028
<i>N</i>	2,576	

Note: Data weighted by race/ethnicity and sex.

Although the rankings of information sources were of primary interest, we also examined the demographic variation in the rated importance of Internet sources. Data on respondent demographics and other characteristics (appended to the survey responses) were modeled as predictors of the information source rankings. Table 4 provides regression outcomes (expressed as odds-ratios) for four models: two binary logit models predicting exposure to Internet advertising and recruiting websites, and two ordered logit models predicting the importance of Internet advertising and GoArmy website to the decision to see a recruiter.

Table 4: Logistic Regression Odds Ratios: Recruits' Exposure to Online Information, Importance of Online Information in Recruiting Decision

	Exposed to Internet advertising	Exposed to military recruiting websites	Importance of Internet advertising	Importance of GoArmy website
Black				
Hispanic			.786* (0.09)	
Other race				1.435* (0.23)
Female				
No high school diploma				0.694* (0.13)
Some college	1.434** (0.19)			
College degree or higher	1.546* (0.27)			
Age	0.939*** (0.01)	0.957** (0.01)		1.032** (0.01)
AFQT percentile			0.995* (0.00)	0.994** (0.00)
Online 3-6 hours per week	1.933*** (0.19)	1.651*** (0.17)	1.786*** (0.16)	1.863*** (0.16)
Online 7-14 hours per week	2.015*** (0.24)	1.747*** (0.21)	1.819*** (0.19)	1.888*** (0.19)
Online 15-21 hours per week	3.014*** (0.52)	2.241*** (0.37)	2.581*** (0.38)	1.812*** (0.27)
Online 21+ hours per week	1.670*** (0.31)		2.063*** (0.34)	1.616** (0.27)
Intercept	2.311** (0.71)		--	--
Cut 1	--	--	0.434** (0.12)	0.479** (0.13)
Cut 2	--	--		
Cut 3	--	--	2.680*** (0.72)	2.389*** (0.63)
Cut 4	--	--	8.403*** (2.29)	8.636*** (2.31)

	Exposed to Internet advertising	Exposed to military recruiting websites	Importance of Internet advertising	Importance of GoArmy website
Method	Logit	Logit	Ordered logit	Ordered logit
Log-likelihood	-1813.1	-1747.8	-3918.9	-4066.8
Chi-squared	124.0	64.1	110.4	111.1
df	13	13	13	13
N	2,711	2,711	2,668	2,727

* $p < .05$, ** $p < .01$, *** $p < .001$

Note: Standard errors in parentheses; non-significant coefficients not shown.

Unsurprisingly, recruits who spent more time online were more likely to report exposure to Internet advertising and military websites, and more likely to rate these sources of information as important to their enlistment decisions than were recruits who spent less time online. However, the relationship between online time and exposure to military information was not necessarily linear. Recruits who spent 15-21 hours online were the most likely to view military information and generally rated the importance of such information highly. Yet they were statistically no more or less likely to place a high importance on the GoArmy website than were recruits who spent between 7 and 14 hours online, or more than 21 hours online.

These results indicate some potentially important demographic differences in recruits' exposure to and perceptions of Internet information sources, even when controlling for time spent online. First, recruits with a bachelor's degree or at least some college were more likely than were less-educated recruits to have been exposed to military advertising. For example, 55 percent of recruits with a bachelor's degree reported seeing Internet advertising, compared to 45 percent of recruits with a high-school diploma or less (results for recruits with some college were statistically similar to those with college degrees).

However, more highly-educated recruits attributed no more importance to Internet advertising in their enlistment decision than did recruits with a high-school diploma. Of all educational groups, recruits with less than a high-school diploma placed the least importance on the GoArmy website. On average, only 33 percent reported that the GoArmy site was "important" or "very important," compared to 42 percent of recruits with at least a high school diploma.

Recruits with higher AFQT scores placed less importance on military advertising and the GoArmy website in their enlistment decision. This finding held even when education level was excluded from the model, and was generally observed for all sources of information, including friends. Nonetheless, the difference was small – for example, 32 percent of recruits in the 90th AFQT percentile would be expected to cite Internet advertising as "important" or "very important," compared to 35 percent of recruits at the 50th AFQT percentile.

Older recruits were less likely to have been exposed to military Internet advertising and websites. There were, however, no differences in exposure to Internet advertising or recruiting websites by race or sex, and sex was not a factor in the importance of Internet advertising or the GoArmy website.

Although there were no race or sex differences in exposure to online information, Internet advertising appeared to be important for Hispanic recruits. "Other race" recruits were more likely to attribute higher importance to the GoArmy website than were whites, blacks, or Hispanics. For example, on average, 51 percent of "other race" recruits cited the GoArmy website as "important" or "very important," compared to only 42 percent of white, black, and Hispanic recruits combined.

Military Recruitment Forums

Content from the sampled forum posts was analyzed to establish categories of questions being asked in military recruitment forums. These categories were expected to provide insight into the important factors when deciding whether to enlist in the Army. Recruiting questions were placed into a given category only when both coders marked a question as belonging to a particular type. These recruiting questions were further grouped to serve as the main measure in determining the type of information that was sought. Table 5 describes these six categories, and lists the number of recruiting questions within each category as well as the proportion of total recruiting posts. Forty-nine of the 200 sampled posts were unrelated to recruiting issues. Frequencies of recruiting questions in each category were therefore calculated using the remaining recruiting posts ($n = 151$).

Table 5. Frequencies of Categories of Recruiting Questions

Categories	Number of Recruiting Questions	Proportion of Total Questions (n = 151)
Qualifications	35	23%
Basic training	39	26%
Processes	59	39%
Lifestyle	52	34%
Other recruiting	2	1%
Non-recruiting	49	n/a

Recruiting processes. Posts that asked questions related to the process of joining the military were most frequent (39 percent of total). These tended to be requests for practical information about the procedures involved in joining the military or obtaining specific skills or training. Typical process posts asked questions such as:³³

- *“Tomorrow I am going to a recruiter and am very nervous. I have met him before because my [best friend] is in the army. I was wondering what I have to bring to my first meeting and what I should have or know before I go. If you can help that would be great. Thanks.”*
- *“Switching from the guard to regular army ... I was wondering what I would need to do if I chose to go regular Army?”*
- *“Anyone know what ADA/DT means on the ERB?”*

Military lifestyle. Questions about military lifestyle formed the second largest block of posts (34 percent of total). These were primarily concerned with career, educational, or training opportunities, particular duty stations or military specialties, and family issues. Typical lifestyle posts asked questions such as:

- *“What kind of responsibilities and training does this MOS [96B] require? What kind jobs specialty work will I do?”*
- *I am a Navy brat, I know the Navy life. I wanted to know what is like to be an Army wife? What do you go through? Is there as much separation as the Navy?”*
- *“Do MP's get the same respect as infantymen, or are they looked down upon?”*

Basic training. More than a quarter of the posts (26 percent) had specific questions about basic training. Many of these were concerned with what to expect and how to prepare, but some forum users were interested in obtaining information about how long a recruit would expect to wait before shipping out for training. Typical basic training posts were as follows:

- *“Hello, I was wondering if someone could give me an idea of the schedule you'd have in Basic, I'd like to know how many hours of sleep you get, and what exercises you do, stuff like that, so I can be more used to it before I join. Thanks. (I'm looking to be 11B, if that helps.)”*
- *“I am trying to lose weight as well of increase the length of time/distance I can run before I enlist. To do this, should I be running daily, or every other day?”*
- *“Does anyone know how long Basic Training+ Jump School for the 82nd Airborne will last?”*

Recruiting qualifications. A slightly smaller number of posts (23 percent) were concerned with the qualifications for joining the military or obtaining specific training. Many of these requested information about physical standards and aptitude test scores, but a non-trivial number (seven out of 43) asked about obstacles imposed by prior legal problems, particularly arrests and convictions for driving under the influence of alcohol. Typical qualifications posts asked questions such as:

- *“Is a waiver available for MP if I had a DUI about four years ago?”*
- *“I have a green card, but am not a citizen. How does this affect my ability to join/contribute? I am disheartened to learn that I might be only able to enlist not join as an officer.”*
- *I got my [aptitude] test scores back and I made a 48 overall. Is that good or not?*
- *“My older brother wants to enlist in the Army, but tore a ligament in his ring finger and pinky of his right hand and has no movement in them. Is he still eligible to enlist or can he get a waiver?”*

Other recruiting concerns and non-recruiting posts. Other recruiting considerations included questions about patriotism/duty, and how to deal with parents or other family members.

Finally, non-recruiting posts offered messages of support for troops as well as various political statements.

DISCUSSION

People interested in joining the military may derive particular advantages from the expansion of the Internet as a career information resource. This study explored 1) the importance of online information sources in enlistment decision-making, and 2) the types of online information that are sought. First, results from an Army survey of new recruits showed that a large proportion of new recruits saw or heard military advertising through the Internet, although not nearly as many that saw or heard military advertising through more traditional channels. Exposure to Internet advertising was stratified by education level, age, and AFQT score. In general, recruits reported that information from the Army's official recruiting website, GoArmy.com, was as important to their decision to contact a recruiter as encouragement from friends who had already enlisted, and almost as important as recruiter-initiated outreach efforts. Second, analysis of posts in recruiting forums revealed a wide range of requests for information. Military forum users were most concerned about the processes of joining the military itself (e.g., necessary steps, incentives available for specific jobs). Questions about the military lifestyle (e.g., what it would be like to work in a specific job or to be stationed overseas) were also prevalent.

Several themes emerge from these findings. First, the Internet is a relatively important source of information for people who were successfully recruited into the Army. Not only was there broad exposure to Internet advertising – about half of the surveyed personnel reported seeing Internet advertising, a figure that rose with greater Internet use – but recruits also tended to weigh information obtained from the official Army website heavily in their decision to take the first practical steps towards joining the Army. The finding that the GoArmy.com website was at least as important as information from friends who joined the Army suggests that Internet resources may act as extended personal information networks. Thus Internet resources may be particularly important for military job seekers (and for the military services themselves) as the

proportion of veterans in the adult population continues to decline in the coming years, and interested applicants have fewer firsthand sources of information on which to base their enlistment decisions.

More broadly, these findings support growing evidence that job seekers benefit from using the Internet as a career information resource.³⁴ In particular, websites that offer interaction and communication – such as discussion forums – may allow for greater anticipatory socialization than larger, official, “corporate” websites currently provide. For example, a recent examination of corporate websites³⁵ concluded that these sites did not allow prospective employees to get a realistic sense of day-to-day life within the organization. In combination with its other outreach efforts, the Army may be doing a better than average job of this – GoArmy.com allows visitors to chat live with recruiters and also hosts the discussion forums analyzed in the second part of this study. Other employers may also benefit from offering similar opportunities for interaction on their sites.

Demographic differences in the survey results may also suggest the continued importance of the Internet in reaching a broader audience. Although it is not surprising that people who spend more time online rate online information sources as more important (even when controlling for sex, race, age, and test scores), this result validates a growing shift towards making more information available online. The importance of online information should only increase in the future, as Internet access expands in schools, homes, and on mobile devices. Furthermore, today’s adolescents – who tend to spend more time online and to socialize over the Internet³⁶ – will soon become tomorrow’s job seekers.

In some instances, demographic differences appeared among the results that cannot be explained simply by the different amounts of time spent online. For instance, recruits with greater education or higher AFQT scores were more likely to be exposed to military advertising online. Recruits with greater education or aptitude are considered more desirable, as they exhibit better job performance and are more likely to complete their first term of service.³⁷ Yet these recruits seemed not to attribute more importance to this information, which may represent missed recruiting opportunities for targeting this desirable group. The most-requested information

categories of recruiting questions from the forum analysis (e.g., recruiting processes, military lifestyle) suggest topics that may deserve more prominence in outreach to these recruits. Finally, when compared with either black or white recruits, Hispanic recruits and those who self-identified as “other race” attributed greater importance to online military advertising and the GoArmy site in particular, respectively. Cross-cultural military research suggests that social and cultural contexts indeed influence such perceptions of value.³⁸ It is reasonable to believe that, if people in different social or ethnic groups value different aspects of their careers, they also value and seek out different categories of information when making career decisions.

Another significant finding that emerges from this analysis is that individuals, including potential recruits, are seeking a wide range of military career information, indicating a greater need for available information than is currently met by official sources. People are using the Internet to inform their assessments about what it takes to join the military and what they can expect as a member of the armed forces. The present analysis of recruiting forums has identified types of sought-after information that job seekers perceive as important yet unavailable from official sources. Furthermore, information categories such as recruitment processes and uncertainty about abilities are not necessarily anticipated by the existing social science literature on who enlists and why – most of which deals with socioeconomic and normative factors. These additional dimensions illustrate how complex the enlistment process – and consequently, the enlistment decision – has become.

The findings from this study thus broaden the picture of enlistment decision-making by indicating the types of information individuals use to develop more complete assessments of the burdens involved in joining the military. These may include, for example, costs in time and effort to complete the recruiting process, the relative attractiveness of various career options given an individual’s aptitudes and circumstances, and the qualitative aspects of life both in the basic training period – during which individuals transition from “outside” the military institution – and in day-to-day life as a soldier and member of the institution. In contrast to these, some categories of information may be readily available, such as specific benefits of joining the military. For instance, we found relatively few questions (16 out of 200) that directly addressed the financial

aspects of joining the military, perhaps because official materials already cover this information fairly completely. Thus, rather than contradicting the dominant intrinsic/extrinsic paradigms of enlistment decision-making, knowledge of what specific information is sought extends these theories, challenging existing perspectives to more closely examine how prospective applicants develop their own sense of the relative merits of different career opportunities.

The relative frequencies of recruiting questions in these information categories can also inform the armed forces about where recruitment information efforts fall short of what applicants feel they need to make an informed decision. This may be because either this information addressed inadequately or is not addressed at all. Analysis of the recruiting forums suggests that potential military recruits are unable or unwilling to find the information necessary to make their enlistment decisions simply from military websites or talking to recruiters. In fact, some forum participants explicitly stated that they were seeking confirmation or verification of information they had received from recruiters. The fact that job seekers may be apprehensive about “official” career information is relevant not only for understanding military recruiting, but also for understanding job-seeking in general. Adolescents cite lack of information or even trustworthy sources as barriers to information seeking about career decision-making.³⁹ For example, students may be uncomfortable or have difficulty with navigating career guidance centers or libraries. Consequently, people who are more familiar and comfortable with searching for specific information on the Internet may be turning to online forums, as indicated by the present results.

Finally, this research represents a novel methodological contribution to military recruitment research. Existing studies on enlistment propensities and motivations rely in large part on self-report as the basis of their decision-making models.⁴⁰ By contrast, use of the Internet, an increasingly rich and nearly ubiquitous communication medium, constitutes a behavioral, naturalistic approach. Analyzing actual requests for military career information provides a direct look at the issues people find important when making enlistment decisions. Similar investigations of online behavior in other contexts are ongoing. *The New York Times*, for example, reported on the growing use of data collected from Facebook, one of the most popular social networking sites on the Internet, to explore topics ranging from social isolation to the

formation of romantic relationships.⁴¹ Such online research into information-seeking behavior may help to validate existing models of enlistment decision-making by confirming the types of information, including values and motivations, that potential recruits consider important.

Study Limitations

This study has provided an initial, exploratory step towards understanding information seeking processes for military careers. The novel use of online forum data, however, may involve several potential limitations, particularly of generalizability.

Anonymous online forum responses. The anonymity inherent to online forums may cause issues with veracity. Some individuals may have privacy concerns – for example, that their comments will be traceable,⁴² or fear silent disapproval from the online majority.⁴³ These individuals may be reticent to freely discuss sensitive topics. Conversely, anonymity may lead to loss of personal responsibility,⁴⁴ resulting in more critical or even untruthful responses and potentially altering the direction of discussion.⁴⁵ Either of these factors would muddy the waters of determining what people actually want to know. A larger problem is that the anonymous nature of online interactions makes it impossible to discern demographic attributes, personal values, or even identity. Forum respondents may be potential recruits seeking information, military family members, or current military personnel offering information. Thus such data cannot be used to establish any relationships between population segments and their occupational preferences or values.

It is nevertheless possible to identify important information for enlistment decision-making from online forums, which provides a useful anecdotal counterpoint to more typical survey research. Furthermore, the similarity between these findings, which emphasize interest in career advancement opportunities, and previous research supporting economic motivations for enlistment decisions, suggests that online forums can clarify the significant factors in desired information about careers and life in the military. The simple fact that such topics are discussed indicates that they are issues of concern among members of the military community.

“Snapshot” of recruiting concerns. The forum posts were sampled at a single point in

time (early 2007). It is possible that the concerns of potential recruits may have changed over time, or that they are unique to a time when the U.S. was engaged in simultaneous, extended conflicts, and when the civilian employment outlook was relatively strong. These results should thus be generalized to different geopolitical or economic contexts with caution.

Recruiting questions do not necessarily reflect motivations or values. It may appear that these categories of recruiting questions constitute a typology of recruit values or motivations,⁴⁶ and further, that the relative frequency with which questions are posted is suggestive of the relative importance of recruits' values or motivations. However, these categories may just as easily reflect the relative availability of information, or that asking questions about "stigmatized" personal qualifications (e.g., drug use) is more easily done online. To create a typology of recruit values from the present findings, it might be necessary to control for either perceived stigma or relative availability of the specific information, neither of which was available from the forum data. It is, however, valuable in itself to learn that certain types of important information are insufficiently available.

Future Research Directions

To achieve a greater understanding of information seeking for enlistment decision-making, it will be necessary to draw a connection between information seeking and actual enlistment behavior. The most important questions for future research will therefore involve the relationship between what people want to know and what kinds of decisions they make. Further research on this topic could thus continue to examine online forum activity, but extend beyond recruiting questions to also consider responses – their accuracy, contradictions, and the potential biases or motivations of respondents. This research will, in other words, examine the value of answers given in response to requests for military career information. A single posted question may generate subsequent responses, advice, and a large number of answers or page views, any of which may provide further evidence of important considerations in enlistment decision-making.

Differences between additional subgroups may also appear. The present study used the Army's Survey of New Recruits, which was comprised of active component Army soldiers. Even

within this population, differences were found by race and education, for example. Other differences may be found between these soldiers in the active component and reservists – thus forums that focus on reservists could also be examined for reserves-specific decision-making factors. Similarly, there may be differences between Army soldiers and those in the other military services, or between enlisted soldiers and commissioned officers, given the present variation by education level. Finally, further investigation could support evidence for varying enlistment motivations by demographic factors.⁴⁷ Future versions of the Survey of New Army Recruits may be particularly important to this effort, to the extent that the magnitude of a “digital divide”⁴⁸ changes over time.

ENDNOTES

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- ¹ Stephen B. Castleberry, "The Web as an Information Source for Sales Recruits: Its Effectiveness in Aiding Anticipatory Socialization of Salespeople," *Industrial Marketing Management* 31 (2002): 573-79.
- ² See Susannah Fox, *Digital Divisions* (Washington, DC: Pew Internet and American Life Project, 2005), http://www.pewInternet.org/report_display.asp?r=165 (accessed December 17, 2006); John B. Horrigan, *Home Broadband Adoption 2006* (Washington, DC: Pew Internet and American Life Project, 2006), http://www.pewInternet.org/PPF/r/184/report_display.asp (accessed December 17, 2006).
- ³ Angie Boyce and Lee Rainie, *Online Job Hunting* (Washington, DC: Pew Internet and American Life Project, 2006), http://www.pewInternet.org/PPF/r/65/report_display.asp (accessed December 17, 2006).
- ⁴ Erving Goffman, "On the Character of Total Institutions," in *The Prison: Studies in Institutional Organization and Change*, ed. Donald R. Cressey (New York: Holt, Rinehart and Winston, Inc., 1961), 15-67.
- ⁵ Charles C. Moskos, "From Institution to Occupation: Trends in Military Organization," *Armed Forces & Society* 4 (1977): 41-50.
- ⁶ See Charles C. Moskos, "From Institution to Occupation: Trends in Military Organization," *Armed Forces & Society* 4 (1977): 41-50.
- ⁷ Elwood Carlson and Joel Address, "Military Service by Twentieth-century Generations of American Men," *Armed Forces & Society* 35 (2008): 385-400.
- ⁸ David E. Rohall, Morten G. Ender, and Michael D. Matthews, "The Effects of Military Affiliation, Gender, and Political Ideology on Attitudes toward the Wars in Afghanistan and Iraq," *Armed Forces and Society* 33 (2006): 59-77.
- ⁹ See Charles Dale and Curtis Gilroy, "The Effects of the Business Cycle on the Size and Composition of the U.S. Army," *Atlantic Economic Journal* 11 (1983): 42-53; Charles Dale and Curtis Gilroy, "Determinants of Enlistments: A Macroeconomic Time-Series View," *Armed Forces*

& *Society* 10 (1984): 192-210; David Segal and Naomi Verdugo, "Demographic Trends and Personnel Policies as Determinants of the Racial Composition of the Volunteer Army," *Armed Forces & Society* 20 (1994): 619-32; Charles Brown, "Military Enlistments: What Can We Learn From Geographic Variation?" *The American Economic Review* 75 (1985): 228-34; Cyril E. Kearn and Abraham Nelson, "The Army's Delayed Entry Program," *Armed Forces & Society* 18 (1992): 253-68.

¹⁰ See John Eighmey, "Why Do Youth Enlist?" *Armed Forces & Society* 32 (2006): 307-28; James Griffith and Shelley Perry, "Wanting to Soldier: Enlistment Motivations of Army Reserve Recruits Before and After Operation Desert Storm," *Military Psychology* 5 (1993): 127-39; Hyder Lakhani and Stephen S. Fugita, "Reserve/Guard Retention: Moonlighting or Patriotism?" *Military Psychology* 5 (1993): 113-25; Brenda L. Moore, "The Propensity of Junior Enlisted Personnel to Remain in Today's Military," *Armed Forces & Society* 28 (2002): 257-78; Todd Woodruff, Ryan Kelty, and David Segal, "Propensity to Serve and Motivation to Enlist Among American Combat Soldiers," *Armed Forces & Society* 32 (2006): 353-66.

¹¹ See, for example, Jay Teachman, Vaughn Call, and Mady Wechsler, "The Selectivity of Military Enlistment," *Journal of Political and Military Sociology* 21 (1993): 287-309.

¹² Charles C. Moskos, "The American Enlisted Man in the All-Volunteer Army," in *Life in the Rank and File: Enlisted Men and Women in the Armed Forces of the United States, Australia, Canada, and the United Kingdom*, ed. David Segal and H. Wallace Sinaiko (Washington, DC: Pergamon-Brassey's, 1986).

¹³ David R. Segal, "Measuring the Institutional/Occupational Change Thesis," *Armed Forces & Society* 12 (1986): 351-75.

¹⁴ E.L. Herr and E. Johnson, "General Employability Skills for Youth and Adults: Goals for Guidance and Counseling Programs," *Guidance and Counseling* 4 (1989): 5-14; Heidi Julien, "Barriers to Adolescents' Information Seeking for Career Decision Making," *Journal of the American Society for Information Science* 50 (1999): 38-48.

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- ¹⁵ Bernard D. Rostker, *I Want you! The Evolution of the All-Volunteer Force* (Santa Monica: RAND, 2006).
- ¹⁶ Peter A. Padilla and Mary R. Laner, "Trends in Military Influences on Army Recruitment: 1915-1953," *Sociological Inquiry* 71 (2001): 421-36.
- ¹⁷ Alexandra Zavis, "Military Taps YouTube to Promote Its View of Iraq," *San Francisco Chronicle*, May 2, 2007.
- ¹⁸ Stuart Elliott, "Army's New Battle Cry Aims at Potential Recruits," *New York Times*, November 9, 2006.
- ¹⁹ John Hockenberry, "The Blogs of War," *Wired* 13.08 (2005).
- ²⁰ This survey was administered to active-duty personnel only. Army reservists are surveyed separately and their responses are not reported here.
- ²¹ Note that the decision to see a recruiter is a key step in initiating the formal enlistment process, but is not the actual enlistment decision itself.
- ²² James N. Dertouzos, *The Cost-Effectiveness of Military Advertising: Evidence from 2002-2004* (Santa Monica: RAND, 2009).
- ²³ See Patti M. Valkenburg and Jochen Peter, "Social Consequences of the Internet for Adolescents: A Decade of Research," *Current Directions in Psychological Science* 18 (2009): 1-5.
- ²⁴ This information was provided by the Army, and does not differentiate between white and non-white Hispanics.
- ²⁵ Recruits' AFQT scores were appended to their survey responses prior to the Army's distribution of the data.
- ²⁶ Paul Lowry and Jay Nunamaker, Jr., "Synchronous, Distributed Collaborative Writing for Policy Agenda Setting Using Collaboratus, an Internet-Based Collaboration Tool," *Proceedings of the 35th Hawaii International Conference on System Sciences*.
- ²⁷ Heidi Julien, "Barriers to Adolescents' Information Seeking for Career Decision Making," *Journal of the American Society for Information Science* 50 (1999): 38-48.

²⁸ Bernard J. Jansen, Karen J. Jansen, and Amanda Spink, "Using the Web to Look for Work: Implications for Online Job Seeking and Recruiting," *Internet Research* 15 (2005): 49-66.

²⁹ <https://forums.goarmy.com/forums/index.jspa>.

³⁰ <http://forums.military.com/eve>.

³¹ Because such forums are public and anonymous, there should not be differences due to, for instance, privacy concerns of posting on an official website. For this reason, as well as to ensure a representative sample, their data were not analyzed separately.

³² Forum posts were categorized only when both coders agreed on a common category for a particular question. Coders agreed about questions concerning qualifications more than any other category of recruiting questions, while basic training had the proportionally fewest agreements (excepting a trivial number of questions in the "other recruiting" category). Partial agreement (coding a question with at least one common category) between coders was obtained on 94 percent of the 200 forum posts, further indicating inter-coder reliability.

³³ The text of the quoted posts is presented exactly as on the websites.

³⁴ David G. Allen, Raj V. Mahto, and Robert F. Otondo, "Web-Based Recruitment: Effects of Information, Organizational Brand, and Attitudes Toward a Web Site on Applicant Attraction," *Journal of Applied Psychology* 92 (2007): 1696-708; Brian R. Dineen, Steven R. Ash, and Raymond A. Noe, "A Web of Applicant Attraction: Person-Organization Fit in the Context of Web-Based Recruitment," *Journal of Applied Psychology* 87 (2002): 723-34.

³⁵ Castleberry, "The Web as an Information Source for Sales Recruits: Its Effectiveness in Aiding Anticipatory Socialization of Salespeople," 573-79.

³⁶ Valkenburg and Peter, "Social Consequences of the Internet for Adolescents: A Decade of Research," 1-5.

³⁷ Congressional Budget Office (CBO), *Recruiting, retention, and future levels of military personnel* (2006).

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- ³⁸ Eloise F. Malone and Chie M. Paik, "Value Priorities of Japanese and American Service Academy Students," *Armed Forces & Society* 33 (2007): 169-85.
- ³⁹ Heidi Julien, "Barriers to Adolescents' Information Seeking for Career Decision Making," *Journal of the American Society for Information Science* 50 (1999): 38-48.
- ⁴⁰ See, for example, Segal, "Measuring the Institutional/Occupational Change Thesis," 351-75.
- ⁴¹ Stephanie Rosenbloom, "On Facebook, Scholars Link Up With Data," *New York Times*, December 17, 2007, Style section.
- ⁴² Mary Madden and Lee Rainie, *America's Online Pursuits* (Washington, DC: Pew Internet and American Life Project, 2003), http://www.pewInternet.org/PPF/r/106/report_display.asp (accessed December 17, 2006).
- ⁴³ See Douglas C. Yeung and John D. Lowrance, "Computer Mediated Collaborative Reasoning and Intelligence Analysis," *Lecture Notes in Computer Science* 3975 (2006): 1-13.
- ⁴⁴ Leon Festinger, Albert Pepitone, and Theodore Newcomb, "Some Consequences of Deindividuation in a Group," *Journal of Abnormal and Social Psychology* 47 (1952): 382-89; Philip Zimbardo, "The Human Choice: Individuation, Reason, and Order Vs. Deindividuation, Impulse, and Chaos," in *Nebraska Symposium on Motivation* 17, ed. W. J. Arnold and D. Levine (Lincoln, NE: University of Nebraska Press, 1969), 237-307.
- ⁴⁵ Katelyn McKenna and Amie Green, "Virtual Group Dynamics," *Group Dynamics: Theory, Research and Practice* 6 (2002): 116-27.
- ⁴⁶ For an example of such a typology, see Eighmey, "Why Do Youth Enlist?" 307-328.
- ⁴⁷ Charles Dale and Curtis Gilroy, "Determinants of Enlistments: A Macroeconomic Time-Series View," *Armed Forces & Society* 10 (1984): 192-210.
- ⁴⁸ See Fox, *Digital Divisions*.