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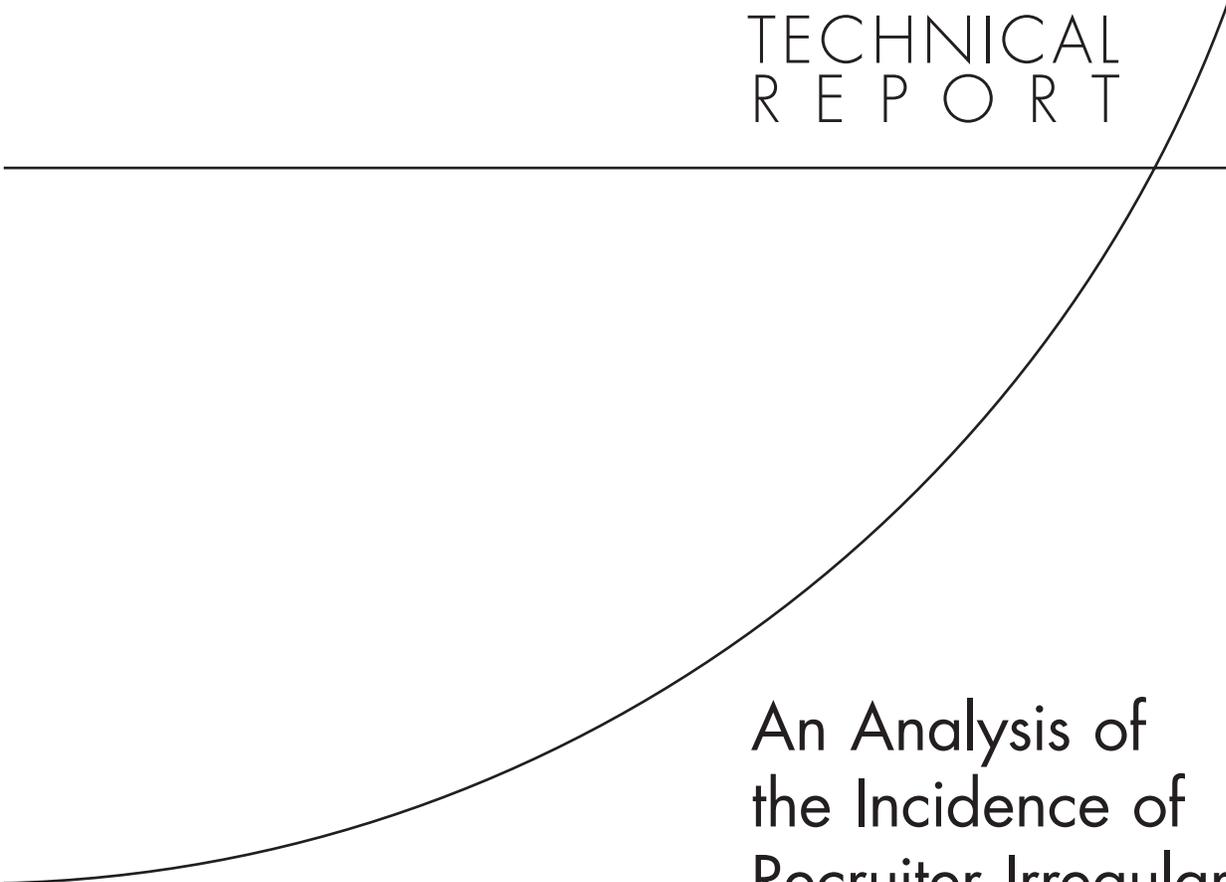Explore the RAND National Defense Research Institute

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An Analysis of the Incidence of Recruiter Irregularities

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Preface

In 2006, the U.S. Government Accountability Office (GAO) examined irregularities among recruiters in each service and concluded that the services lack guidance on how to track and report irregularities,[1] and consequently the available data on irregularities were inadequate to track the incidence and types of irregularities. In December 2006, the U.S. Office of the Under Secretary of Defense (OUSD) provided such guidance, and since that time each service has a data system that tracks and reports incidents of irregularities according to the OUSD guidance. Our report uses data from 2007 through 2009 to tabulate the incidence and prevalence of recruiter irregularities. It supplements that analysis with an exploration of Army contract data. The study compares the characteristics of those signing contracts at the end of the recruiting month—when recruiters are under the greatest pressure to meet their monthly recruiting quotas—with those signed earlier in the month. Under certain assumptions, differences in characteristics by contract timing provide an indication of lax recruiting and recruiter misbehavior. The research reported should be of interest to policymakers concerned with the effectiveness of military recruiting as well as to researchers interested in the outcomes of using an incentive and quota system for personnel management. Comments are welcome and may be sent to Beth Asch at Beth_Asch@rand.org or Paul Heaton at Paul_Heaton@rand.org.

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[1] This report uses both "recruiter improprieties" and "recruiter irregularities" to refer generically to any undesirable behavior by recruiters related to the contracting and processing of military applicants. More-specific terms and definitions used by the Department of Defense and the services are discussed in Appendix A.

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Summary

In December 2006, the Office of the Under Secretary of Defense for Personnel and Readiness provided the services with guidance on how to track and report incidents of recruiter irregularities. The guidance defines eight categories of irregularity that include criminal misconduct, fraternization, concealment or falsification of information, and testing irregularities. Since then the services have developed and improved their data systems to track and report irregularities following this guidance.

Our report provides tabulations of irregularities using these data systems, provided by OUSD and supplemented with data on accessions and recruiters. These data systems provide information on reported allegations of irregularities, on substantiated allegations, and the category of wrongdoing for each substantiated allegation. In addition, using Army contract data, we compare the characteristics of those signing contracts in the final days of the recruiting month with those signing contracts earlier in the recruiting month. Army recruiters are managed by an incentive and quota system that rewards recruiters for meeting their monthly mission. To the extent that the pressure to meet their monthly recruiting mission results in greater irregularities at the end of the month, and that the differences in the contract characteristics we consider reflect these irregularities, then analyses of differences in contract characteristics at the end of the month relative to characteristics of contracts signed earlier in the month provide an indication of irregularities, at worst, and lax recruiting, at best.

Findings

We find that as a fraction of the total recruiter workforce or as a fraction of the total number of active duty and reserve applicants, substantiated allegations and the number of applicants involved in substantiated allegations are small. Across all four services and all years of the study, the share of recruiters involved in substantiated irregularities never exceeds 3 percent and has fallen since 2007 to one substantiated irregularity per 100 recruiters in 2009. The share of applicants involved in substantiated irregularities is about 1 in every 1,000 applicants or 0.1 percent. Furthermore, most substantiated allegations are related to concealment of disqualifying information rather than criminal misconduct. These findings are consistent with the findings of a recent GAO report on recruiter irregularities (GAO, 2010).

Since it seems unrealistic to expect zero allegations, the results suggest that in general, irregularities are a minor problem, though we acknowledge that we have no external benchmark by which to assess size. Nonetheless, we note that it is quite possible that only allegations that have a relatively high chance of being substantiated are reported, and over time recruiters

may have become more adept at hiding irregularities from detection. Furthermore, given that recruiting is a relatively independent activity, especially for recruiters assigned to one-person stations, where it is difficult to substantiate an allegation, it is possible that our tabulations of substantiated allegations seriously undercount actual irregularities.

Turning to Army contract data, we find evidence of poorer screening of recruits at the end of the recruiting month. Specifically, we observe a 10-percent higher incidence of obesity, a 30-percent increase in low fitness ratings, and a 49-percent increase in waivers among contracts signed at the end of the recruiting month relative to those signed earlier in the recruiting month. Because of the need to balance the flow of contracts at each Military Entrance Processing Station over the calendar month, the end of the recruiting month for the Army does not coincide with the end of the calendar month. Because applicants likely have no specific reason to sign a contract at the end of the recruiting month and if all applicants are handled equally, applicant characteristics should be randomly distributed across days in the recruiting month. Any pattern that suggests some characteristics are more prevalent at the end of the recruiting month is thus an indication of recruiter, rather than applicant, behavior.

We also find that the incidence of contract cancellation for fraudulent enlistment is low but is, nevertheless, 50 percent higher (2.7 percent) among contracts signed at the end of the month. Furthermore, contracts signed at the end of the recruiting month are more likely to be renegotiated and are less likely to lead to an accession.

We also consider some longer-term outcomes to explore whether those signing contracts at the end of the month have poorer subsequent performance in the Army than those contracting earlier in the recruiting month. We observe minimal differences in persistence across the two groups, using several measures of persistence, including early separation, total days of service, and separation prior to the end of the original term of service. Court-martials and poor performance discharges also occur at similar rates across the two populations, but bad conduct discharges are 4 to 5 percent more common among those signing at the end of the month. Thus, the analyses suggest that recruits signing at the end of the month, when poorer screening is presumably greater, do not necessarily leave sooner than other recruits, but they may adversely affect readiness through poor conduct. We do not know the extent to which poor conduct by these recruits adversely affects the morale and performance of their peers, takes up a disproportionate amount of time by drill sergeants and training instructors for disciplinary action, and generally has a negative effect on unit cohesion.

While GAO suggests that one reason for a higher incidence of irregular contracts at the end of the month is the pressure on recruiters to meet their missions during a time of war, we observe no obvious increase in indicators of possible irregular recruiter behavior or less stringent screening when we compare contracts executed before and after the beginning of the Iraq war. One potential explanation for our result is that the Army's contract goal declined faster than the number of production recruiters during the initial phase of the war, reducing production requirements and thus the incentive for the average recruiter to seek marginal recruits. Because we do not formally investigate factors, other than the recruiting calendar, that influence recruiter behavior, we offer this only as a hypothesis.

Drawing upon our contract analyses, we describe a method for computing a range of estimates of the overall extent of unreported irregularities in the Army. Ultimately we do not know whether the higher incidence of bad conduct discharges for contracts signed at the end of the month represents a large change in recruiter behavior at the end of the month coupled with a small impact of this behavior or whether it represents a small change in recruiter behav-

ior combined with a large impact of lax screening on bad conduct discharges. However, for the most plausible ranges of values for these two variables, the implied overall rate of irregularities in the Army ranges from 1 to 9 percent of contracts. Although this analysis in not fully conclusive, it suggests that even with better data covering unreported irregularities, we would still arrive at the same basic conclusion that irregularities are relatively uncommon. At the same time, the true incidence of irregularities in the Army may be above that which is indicated by tabulations focusing solely on reported or substantiated irregularities.

Recommendations

Because of differences in how the services track and report irregularities, we recommend that OUSD refine the guidance it provides the services. Specifically, it should provide more details about how to report situations in which multiple recruiters are involved in a single allegation and when a given recruiter is involved in multiple categories of allegations at a point in time. Also, the services seem to use different criteria for determining whether an allegation is serious enough to report, because about half of allegations in the Air Force and Marine Corps were substantiated in 2007 and 2008 but far fewer allegations are substantiated in the Navy and Army. OUSD should therefore provide more guidance on how the services should determine whether an allegation is serious enough to report.

OUSD might also define subcategories of "concealment and falsification," the most common category of irregularity. Currently, it is unclear what information is concealed or falsified, and so it is difficult to identify what aspects of the enlistment process require greater oversight or possible reengineering.

We explored merging information from the irregularities databases with data on contracts and recruiters for the Navy and Army. Combining data from the improprieties database with other data sources is likely to provide the Office of the Secretary of Defense and the services with greater insights into the circumstances that lead to improprieties than analyses of the improprieties databases alone. We therefore recommend that the services continue efforts to ensure integrity of the databases used to track irregularities, which would facilitate such linkages.

Finally, our analyses of the quality of applicant screening over the recruiting month provide a provocative but ultimately incomplete view of this feature of the recruiter management system. Although our analyses suggest that the recruiter incentive programs and quota systems may lead to undesirable behavior by recruiters, they also facilitate greater recruiter production of high-quality enlistments. Furthermore, some of the marginal recruits may ultimately be successful soldiers and citizens. Thus, even if the current management system leads to some recruiter misbehavior, the benefits of these systems may outweigh their costs. Further research is needed to illuminate the tradeoffs between effective recruiter production incentives and the potential for inappropriate behavior in response to those incentives.

Acknowledgments

Introduction

In 2006, the U.S. Government Accountability Office published a report (GAO, 2006) on recruiter irregularities. A key finding was that the Department of Defense and the services had limited ability to assess the extent of recruiter irregularities because the Office of the Under Secretary of Defense (OUSD) had not provided criteria for defining irregularities or a framework to guide the maintenance and reporting of data to track irregularities. GAO also argued that existing data were likely to understate the incidence of irregularities because the services did not track all allegations of recruiter wrongdoing.

GAO examined data provided by the services covering allegations of recruiting irregularities that occurred in 2004 and 2005. In these data, irregularities are less than 1 percent of accessions, and about 10 percent of allegations were substantiated. Fewer than 3 percent of recruiters in 2004 and 5 percent in 2005 were involved in substantiated cases of irregularities. However, GAO argued that these figures may inaccurately portray the nature and extent of irregularities because of data quality problems, variation across services in criteria for defining irregularities, and insufficient tracking of all allegations.

GAO also discussed several factors that could explain recruiter irregularities, including the adverse effects of a strong economy on recruiting and the long work hours of recruiters. GAO tabulated data from the Chicago Military Entrance Processing Station (MEPS) and found that at the end of the recruiting month for the Army (which occurs at different points during each calendar month), incidents of irregularities surge. Since recruiters are managed by monthly quotas and an incentive program that gives them credit for contracting qualified applicants, GAO argued that the recruiter management system is also a factor explaining irregularities.

In response to the GAO report, the Department of Defense issued a memorandum to the services in December 2006 to establish policy and provide guidance on tracking and reporting recruiter irregularities. The memorandum defined recruiter "irregularities" as "those willful and unwillful acts of omission and improprieties that are perpetrated by a recruiter or alleged to be perpetrated by a recruiter to facilitate the recruiting process for an applicant." The memorandum provided specific definitions of different irregularities and provided a format for reporting irregularities. The Army, Navy, and Air Force updated their policies, procedures, and instructions with respect to recruiter irregularities, including adding guidance on tracking them to respond to the requirements of the OUSD memorandum.

In light of new procedures and guidance, the services have improved their data for reporting recruiter irregularities. In our report, we revisit the GAO's original findings regarding irregularities, drawing from the new, improved data that have been developed since the publication of the 2006 GAO report. A key question is whether the report's original findings regard-

ing the extent of substantiated allegations and the number of substantiated allegations as a fraction of production[1] recruiters continue to hold with the improved reporting of irregularities. We also reexamine cycles in irregularities related to the Army recruiting calendar—originally demonstrated only for Chicago—at the national level and explore how these cyclic patterns can help provide a range for the extent of *unreported* irregularities within the Army. In the process, we also explore the effects of the recruiter management system on recruiter behavior.

To accomplish these research objectives, RAND gained access to each service's data on recruiter irregularities from 2006 through 2009, including information on the number of production recruiters and applicants over this period. We also obtained micro data on individual Army enlistees and on individual recruiters covering a multiyear period.

In January 2010, when we were concluding the analysis phase of the research reported here, GAO published a report that also revisited its earlier findings regarding irregularities by analyzing the improved data developed by the services for the period 2006 through 2008 (GAO, 2010). GAO found that substantiated cases of recruiter irregularities were a small share of accessions and that substantiated cases were about 23 percent of all reported cases of irregularities. GAO also found that the services have improved their oversight over irregularities but argued that the services could improve information sharing within their commands. GAO concluded that OUSD needs to clarify the reporting requirements and that data on irregularities are incomplete because of incomplete information from the National Guard.

In this report, we present the findings of our analyses of the services' data on irregularities and data from individual-level Army enlistments.[2] As appropriate, we compare our findings with those of GAO's two reports (2006, 2010). To provide context for the analyses that follow, Chapter Two provides a brief overview of the recruiting process and the services' recruiter management systems. Appendix A also provides background information by briefly summarizing the services' policies and procedures with respect to recruiter irregularities. Chapter Three describes our data, while Chapter Four presents tabulations of allegations and substantiated allegations and compares them to the number of applicants and the number of recruiters. Chapter Five presents tabulations related to the question of whether incidents of wrongdoing or lax screening are more prevalent at the end of the recruiting month, when recruiters face more pressure to meet their monthly recruiter quotas. Chapter Six presents our conclusions and recommendations.

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[1] "Production" recruiters have regular contact with potential applicants and can be credited with signing contracts that enlist new recruits. There are some military personnel who hold the job title of recruiters but who are not considered production recruiters because their duties do not involve regular processing of applicants (for example, there are recruiting command personnel and recruiters with administrative responsibilities, such as overseeing advertising programs).

[2] This report uses both recruiter "improprieties" and recruiter "irregularities" to refer generically to any undesirable behavior by recruiters related to the contracting and processing of military applicants. More-specific terms and definitions used by the Department of Defense and the services are discussed in Appendix A.

Background on Recruit Processing and Recruiter Management

The services rely on their recruiter force to seek out and enlist qualified recruits. In fiscal year (FY) 2009, the services had about 21,000 recruiters on production, with about half of them in the Army. Recruiters are assigned to stations in geographic areas throughout the United States and its territories, with recruiting stations ranging in size from one-person stations to stations with six or more recruiters.

Recruiters do not passively wait in recruiting stations to process applicants who walk into the station. While some applicants are walk-ins to recruiting stations, only 30 percent of the target population, young adults ages 16 to 24, meet the military's minimum enlistment standards. Furthermore, survey data show that much of the young adult population does not have a strong propensity to enlist. Consequently, successfully enlisting qualified youth requires considerable effort on the part of recruiters in conjunction with recruiting aids such as advertising and enlistment bonuses. Recruiters must spend time finding and contacting leads, canvassing areas where qualified recruits are likely to be, such as high school job fairs, and then processing and prescreening applicants.

Applicants who meet enlistment qualifications of the service sign an enlistment contract, and the recruiter gets credit for the contract under the recruiter management system. Past studies have shown a connection between enlistment standards, particularly those related to education and aptitude, and subsequent military performance. Buddin (1984, 2005) finds that high school graduates are less likely to attrite, leave before the end of their enlistment term. Kavanagh (2005) reviews the military manpower literature on the determinants of military productivity, concluding that higher-aptitude personnel perform better at military-related tasks. Because enlistment standards are stringent enough to disqualify some applicants that the services would otherwise consider desirable, the services have review processes in place that allow them to enlist applicants who do not meet all of the enlistment standards by granting them waivers. The review process generally involves a reassessment of the applicant's qualifications by a commanding officer within the recruiting chain of command.

To induce and reward recruiter effort for successfully enlisting qualified applicants, each service has a quota system and an incentive program for recruiters that operate on a monthly cycle.[1] Based on the needs of the service and an analysis of the likely supply of potential recruits in a particular area, each month each recruiting station is assigned numeric targets (missions) specifying the number of new contracts its recruiters are expected to complete during that

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[1] USAREC Regulation 672-10 (U.S. Army Recruiting Command, 2002) provides more details on Army recruiter incentives. A review of recruiter incentive plans and their effects on enlistments are discussed in Oken and Asch (1997) and Asch (1990).

month. Separate missions are established for particular types of recruits, such as recruits with high school credentials and above average Armed Forces Qualification Test (AFQT) scores (who are referred to as "high-quality" recruits). Recruiters in stations that meet their targets across all recruit types are awarded points that, upon accumulation, can be converted into recruiting awards. Points and awards can lead to commendations, medals, and other awards that can be considered in promotion decisions.

Dertouzos and Garber (2006) report that over the period 2001 to 2004, the typical Army recruiting station had 2.5 recruiters, signing just over two contracts per month with recruits who either were high school graduates (or seniors) or had high aptitude and 1.9 contracts per month with recruits who had not graduated from high school or had lower aptitude. High-quality recruits are harder to recruit, and as these figures indicate, the average Army recruiter over this period enlisted less than one high-quality recruit per month.

Past research also shows that recruiter effort responds to the recruiter management system. Dertouzos and Garber (2006) find that Army recruiter effort increases with the recruiting goal, although the positive effect diminishes at higher goals. When recruiting goals are too difficult to achieve, their effectiveness is diminished. Asch and Karoly (1993) and Asch (1990) find that the timing of contracts, recruit quality, and contract characteristics (in terms of occupation chosen and benefits chosen) reflect the specific features of recruiter incentive programs and behaviors rewarded by these programs.

Several features of the Army's recruiter management system are particularly salient from the point of view of understanding irregularities and to the approach we use to analyze Army irregularities in Chapter Five. As discussed in more detail in that chapter, we compare the characteristics of recruits signing Army contracts in the final days of the recruiting month to those signing earlier in the month—as a potential metric of irregularities.

First, only Army recruiters who sign at least one contract during the recruiting month are eligible to receive points for their station's performance. Thus, although there are always incentives to sign additional contracts (because each additional contract contributes to the accomplishment of the collective mission), incentives to move from zero to one contract in a month are particularly strong, since doing so potentially qualifies an individual for additional award points. Once a recruiter has achieved the first contract, the incentive program provides further incentives to sign additional contracts. The incentive programs also reward overproduction relative to the monthly goal, although recruiters may opt to forgo these incentives and process applicants in the following month to help achieve the monthly goal in the subsequent month. Strategically timing enlistments is likely to be a serious problem only when meeting the monthly mission is easy and there are weak incentives to continue production once the monthly mission is achieved.

The second feature is that to balance the flow of applicants to each MEPS over the calendar month, the timing of the recruiting month for the Army does not follow the calendar month but, instead, varies over the course of the year, occurring every four or five weeks.[2] Consequently, the number of contracts signed and characteristics of those signing contracts in the final days of the recruiting month relative to earlier in the recruiting month likely reflect changes in recruiter effort in response to the incentive to meet the station's monthly goal rather than changes in the types of people who are applying to the Army. As noted above, the

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[2] For example, in 2003, the recruiting months began on 1/28, 2/25, 4/1, 4/29, 5/27, 7/1, 7/29, 8/26, 9/16, 10/14, 11/12, and 12/9.

observed number and quality of contracts during a month reflect the recruiting market potential of the area, as influenced by youth attitudes; recruiter effort; and other factors. However, because there is no reason to suspect that youth are themselves more inclined to enlist on the specific days that define the end of each recruiting month, any difference in characteristics of recruits at the end of the month most likely reflects recruiter effort.

Asch (1990) provides evidence that recruiter productivity is influenced by the time horizon over which recruiting rewards are based. Specifically, when Navy recruiters were rewarded based on the cumulative number of contracts produced by the end of a 12-month cycle, their productivity peaked in the 12th month of the cycle, then dropped markedly once a reward was won, and then rose again at the end of the next cycle.[3] While the specific details of the Army and Navy recruiter incentive programs differ, they both involve rewarding contract production over specific time periods. This evidence suggests that Army recruiters who face strong incentives to meet monthly missions are also likely to time their productivity based on the monthly contract cycle. In Chapter Five, we show that this is indeed the case. We also document differences in the characteristics of Army contracts signed at the end of the recruiting month, and discuss how these differences provide evidence of possible recruiter irregularities in response to the recruiter management plan.

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[3] One explanation for this result is that the observed timing of Navy contracts reflects the optimal effort allocation of recruiters as they approach the end of the cycle. Recruiters may allocate more effort to investment activities at the beginning of the cycle, like contacting leads and attending job fairs, and may allocate more effort to finalizing the deal and getting contracts signed at the end of the cycle. Another explanation is that recruiters concentrate their efforts at the end of the cycle, when the deadline for determining success approaches. The data did not permit an analysis of these alternatives.

Data

Our analyses rely on several data sources. For our tabulations on incidence of irregularities presented in Chapter Four, we requested and received from each service a database of incidents of recruiter irregularities. With the exception of the Air Force data, which covers the period 2007 to 2009, the data for each service cover 2006 through 2009. Thus, the data reflect guidance given by OUSD to the services on defining and reporting recruiter irregularities, and they are not directly comparable to the data drawn upon by GAO in its 2006 report. These definitions, as well as background information on the services' policies and procedures for reporting and tracking irregularities, are briefly summarized in Appendix A.

The services differed somewhat in the data they provided. The Army provided micro data on each allegation that give details regarding the number of recruiters involved, the number of applicants, and some of the applicant characteristics. The Navy also provided micro data on each allegation. Because the Navy began restructuring their data in May 2007 and informed us that data prior to that date were suspect, we do not report tabulations of irregularities in the Navy for 2006. The Air Force provided a spreadsheet with a more limited set of information for each case. The Marine Corps provided a spreadsheet with case-level violation and disposition data for FY 2009 and tabulations with aggregate counts of incidents and their disposition for prior years.

To analyze the timing of contracts with respect to the Army's recruiting calendar, as shown in Chapter Five, we used individual-level Army enlistment data from 2000 through 2008 that provide detailed information on each Army contract and accession. We attempted to match the recruiter impropriety data with enlistment contract data for both the Army and Navy. The Army also made available to RAND individual-level Army recruiter data from 2006 through 2008 that provide detailed information on the job and demographic characteristics of production recruiters, which we attempted to match with entries in the improprieties database. However, because some recruiters involved in improprieties are guidance counselors or other nonproduction personnel such as supervisors, we were unable to find matches for many recruiters in the improprieties databases in the enlistment or production recruiter data. As a general matter, combining data from the improprieties database with other data sources, such as data tracking the whole of the recruiter force, is likely to provide the Office of the Secretary of Defense (OSD) and the services with greater insights into the circumstances that lead to improprieties than analysis of the improprieties databases alone. This suggests the need for continued attention to data quality verification in order to ensure that databases can be properly linked and analyzed.

Data on the total number of recruiters was provided to us by the Office of the Director of Accession Policy. Data on total applicants are from Military Entrance Processing Command

(MEPCOM) data, provided by the Defense Manpower Data Center, while data on total accessions were obtained from the OSD interactive Recruiting Management Information System.

Results on Allegations

This chapter describes our tabulations of the incidence of recruiter irregularities based on the data provided by each service. A key finding of this chapter is that substantiated allegations of recruiter irregularities, as tabulated from each service's database, are uncommon, consistent with the 2010 GAO report, although we acknowledge that we have no benchmark by which to compare these tabulations.

Table 4.1 shows tabulations of total, substantiated, and unsubstantiated allegations of irregularities by service for 2006 through 2009.[1] Where available data exist, we also report the numbers of applicants and recruiters involved in potential and substantiated irregularities. Tabulations are based on the services' reports of irregularities, which incorporate OUSD 2006 guidance for defining and reporting these irregularities. Table 4.2 computes percentages based on the numbers in Table 4.1. Blank cells in both tables mean that we do not have data for those cells. Except for the Air Force, the tabulations in these tables are for the active and reserve components (but not the National Guard). In the case of the Air Force, we report tabulations for only the active component.

While it is tempting to compare figures across services, differences in service policies with respect to reporting make such comparisons difficult. For example, the Army's database permits multiple applicants and recruiters to be associated with one allegation, while the other services permit only one recruiter to be associated with a given allegation (although in the Navy, a recruiter can be associated with multiple allegations). Furthermore, on top of OUSD guidance, as described previously, the services themselves have policies and procedures for defining and reporting allegations that affect the figures in Tables 4.1 and 4.2. Over time, the services have refined their measures and reporting systems, so even comparisons between 2007—the first year after the OUSD guidance—and later years can be difficult to interpret. Thus, while we discuss differences across services and over time, we also note that caution is required in interpreting these differences.

Table 4.1 shows that the total number of allegations rose from 1,458 to 1,897 between 2007 and 2008 and receded in 2009. These figures represent the number of incidents in each year that require an investigation. Part of the increment between 2007 and 2008 can be attrib-

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[1] We discuss later in this chapter how and why the tabulations in Tables 4.1 and 4.2 differ from those reported in GAO (2010).

Table 4.1
Number of Allegations, Applicants, and Recruiters by Fiscal Year, in the Active and Reserve Components

Service	Background Information		Irregularities			
	Total Number of Applicants	Total Number of Recruiters[c]	Allegations[d]	Substantiated Allegations[e]	Applicants Involved in Substantiated Allegations	Recruiters Involved in Substantiated Allegations
2006						
Army	204,436	10,381	913	211	269	313
Air Force						
Marine Corps	54,292	3,388	183	93		
Navy[b]	80,857	4,796				
Total	297,659	13,769	1,096	304		
2007						
Army	133,240	10,281	950	214	265	297
Air Force[a]	49,681	1,580	38	22		
Marine Corps	58,048	3,633	211	118		
Navy[b]	82,399	5,027	259	66		64
Total	323,368	20,521	1,458	420		
2008						
Army	142,220	11,190	1,003	213	248	273
Air Force[a]	52,902	1,320	27	22		
Marine Corps	63,973	4,033	119	75		
Navy[b]	95,260	5,321	748	125		123
Total	354,355	21,864	1,897	435		
2009						
Army	162,888	10,283	842	115	235	187
Air Force[a]	63,066	1,346	12	8		
Marine Corps	58,646	4,033	129	43		
Navy[b]	89,768	5,348	541	72		70
Total	374,368	21,010	1,524	238		

NOTES: Tabulations are based on data sources provided by each service. Blank cells mean that we do not have data for those cells.

[a] Figures for the Air Force are for active component recruiting only. With the exception of applications, numbers for the other services are for both active and reserve component recruiting.

[b] The Navy developed a new data system for tracking irregularities in May 2007, so information provided for 2006 and some of the data prior to May 2007 are unreliable. 2009 data are preliminary.

Table 4.1—Continued

[c] The recruiter numbers include all recruiters who might have contact with an applicant and are at risk of an irregularity. It is the total number of recruiters assigned to the recruiting command over the course of each year, whether "on production" or not, and whether or not they are assigned a recruiting goal. These numbers exceed the standard reporting of recruiter strength, which is usually the average strength over the year.

[d] For the most common types of irregularities (concealment or falsification, testing irregularities, false promise/coercion, and quality control errors), the Army allows multiple recruiters and applicants to be associated with a single allegation. For the other services, each allegation has exactly one recruiter, although a recruiter can be involved in multiple allegations. Also for the Navy, as for the other services, the table shows tabulations for only the eight categories defined as an irregularity by OUSD 2006 guidance. The Navy tracks other allegations in addition to the eight categories, but these others are not shown in the table.

[e] With the exception of the Navy, the difference between substantiated and total allegations is the number of unsubstantiated cases. For the Navy, some of these cases have an "unknown" disposition. According to the Navy, these cases were closed without a disposition and include cases where an allegation was made but, after a preliminary inquiry, a decision was made that insufficient evidence was available to warrant a full investigation.

uted to the Navy's introduction of a data structure for tracking allegations in May 2007, as part of its response to OUSD guidance for reporting irregularities, and the lack of reliable Navy data prior to that date. In 2007 and 2008, 29 percent and 23 percent of all allegations were substantiated, respectively. This figure fell to 16 percent in 2009, as shown in Table 4.2. The percentage of allegations substantiated varies by service, with the Marine Corps and Air Force having the highest percentages since 2007 and the Navy and Army having the lowest percentages.

Because a given applicant or a given recruiter can be associated with multiple allegations, and similarly, a given allegation can involve multiple applicants or recruiters,[2] and because we are not able to link allegation data with individual applicant or recruiter data, we cannot directly estimate the fraction of applicants or of recruiters with a substantiated allegation of irregularity. We can get a rough estimate by computing the ratio of applicants involved with a substantiated allegation to the total number of applicants. These figures provide a rough estimate of the percentage of applicants with a substantiated allegation and can only be computed for the Army because of data availability. For the Army and Navy, we can also report the number of recruiters involved in a substantiated allegation relative to the total number of recruiters in each year. These figures provide a rough estimate of the percentage of recruiters involved in substantiated allegations. We also compute for each service the ratio of substantiated allegations to the total number of applicants and to the total number of recruiters. All of these ratios are shown in Table 4.2. We reiterate that caution must be exercised in interpreting these ratios because of the issue of multiple applicants associated with an allegation.

The ratio of the number of Army active and reserve applicants involved in a substantiated irregularity to the total number of applicants is on the order of about 1 per 1,000 applicants. Similarly, compared to the total number of active duty and reserve applicants, the number of substantiated allegations is also about 1 per 1,000 applicants. As a fraction of total recruiters at risk of an irregularity, both production and nonproduction recruiters, the number of Army (active and reserve) recruiters involved in a substantiated irregularity is 3.0 percent in 2006, falling to 1.8 percent in 2009. For the Navy, the figure falls from 2.3 percent in 2008 to 1.3 percent in 2009. The count of substantiated allegations per 100 recruiters varies by service, but

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[2]   This statement is true except for the Navy, whose reporting system allows only one recruiter to be assigned to each allegation. Thus, in the Navy's system, an allegation will not be assigned to multiple recruiters.

Table 4.2
Percentages of Allegations, Applicants, and Recruiters by Fiscal Year, in the Active and Reserve Components

Service	Substantiated Allegations per 100 Recruiters	Substantiated Allegations per 1,000 Applicants	% of Total Allegations Substantiated	Substantiated Applicants Involved per 1,000 Applicants	Substantiated Recruiters Involved as % of Total Recruiters
2006					
Army	2.0	1.0	23.1%	1.3	3.0%
Air Force					
Marine Corps	2.7	1.5	50.8%		
Navy					
Total (Army + Marine)	2.2	1.3	27.7%		
2007					
Army	2.1	1.3	22.5%	1.6	2.9%
Air Force	1.4	0.4	57.9%		
Marine Corps	3.2	1.8	55.9%		
Navy	1.3	0.7	25.5%		1.3%
Total	2.0	1.1	28.8%		
2008					
Army	1.9	1.1	21.2%	1.3	2.4%
Air Force	1.7	0.4	81.5%		
Marine Corps	1.9	1.1	63.0%		
Navy	2.3	1.2	16.7%		2.3%
Total	2.0	1.1	22.9%		
2009					
Army	1.1	0.6	13.7%	1.1	1.8%
Air Force	0.6	0.1	66.7%		
Marine Corps	1.1	0.7	33.3%		
Navy	1.3	0.8	13.3%		1.3%
Total	1.1	0.6	15.6%		

NOTES: Tabulations are based on data in Table 4.1. Blank cells mean that we do not have data for those cells.

in general is quite small, on the order of about 1 per 100 recruiters in 2009, down from about 2 per 100 in 2007.

Overall, the figures in Table 4.2 suggest that substantiated allegations as a fraction of applicants and recruiters are few in number, although we do not have a specific benchmark by which to judge these figures. The percentages shown in Table 4.2 suggest that only about 1 to 3 percent of total recruiters are involved in a substantiated allegation and about 0.1 percent

of applicants are involved. Because of the caveats noted above, these exact figures need to be interpreted with caution, but they suggest that the general magnitude of the problem of irregularities is relatively small. That said, it is possible that the nature of the substantiated allegations are particularly egregious, and any egregious substantiated allegation should be avoided. It is useful to ascertain the frequency of the different types of substantiated allegations. Table 4.3 provides a frequency distribution of the different categories of substantiated allegations, defined by OUSD guidance, in aggregate for the period FY 2007 through FY 2009.

Table 4.3 suggests that in the Air Force, the most common categories of substantiated allegations are fraternization and concealment or falsification. Concealment or falsification is the main category of irregularity for the Army, accounting for 53 percent of substantiated allegations between 2007 and 2009. Substantiated allegations are less concentrated in specific categories for the Marine Corps and Navy, although sexual misconduct and concealment or falsification are the more prevalent (17.6 percent and 32.5 percent, respectively) for the Marine Corps, while fraternization and concealment or falsification (19.0 percent and 45.6 percent, respectively) are more prevalent for the Navy. In general, the figures in Table 4.3 suggest that the most common irregularity is related to concealment of disqualifying characteristics and falsification of applicant information. While such dishonesty is of course a cause for concern, it is notable that one of the most egregious categories, criminal misconduct, is rare. On the other hand, sexual misconduct for the Marine Corps is the third most common allegation. Concealment or falsification would be less cause for concern if these applicants "wash out" in

Table 4.3
Breakdown by Category of the Number (and Percentage) of Substantiated Allegations, FYs 2007–2009

Category	Army	Air Force	Marine Corps	Navy
Criminal misconduct	4 (0.7%)	0 (0%)	17 (7.3%)	4 (1.5%)
Sexual misconduct	25 (4.4%)	1 (2.0%)	39 (16.7%)	4 (1.5%)
Sexual harassment	9 (1.6%)	0 (0%)	4 (1.7%)	12 (4.6%)
Fraternization or unauthorized relationship with an applicant	120 (21.0%)	24 (48.0%)	64 (27.4%)	50 (19.0%)
Concealment or falsification	305 (53.3%)	24 (48.0%)	76 (32.5%)	120 (45.6%)
Testing irregularity	10 (1.7%)	0 (0%)	19 (8.1%)	4 (1.5%)
False promise/coercion	9 (1.6%)	1 (2.0%)	5 (2.1%)	21 (8.0%)
Quality control error	90 (15.7%)	0 (0%)	10 (4.3%)	48 (18.3%)
Total	572	50	234	263

NOTES: Tabulations are based on data sources provided by each service. See notes to Table 4.1.

the Delayed Entry Program (DEP) and do not actually enter the military.[3] In other words, processing further downstream during enlistment might catch these bad apples and prevent their ultimate accession. Among other issues, we explore this possibility in the next subsection. As discussed below, we find evidence to suggest that Army contracts that are more likely to be irregular are also more likely to fail to access. That is, these applicants are more likely to wash out in DEP and not enter the military.

Tables 3 and 4 of GAO (2010) focus on the incidence of irregularities across each service. Unlike the present report, GAO (2010) included information from the Air Force Reserve, which maintains a separate recruiting command from the active Air Force. Also, because of its publication date, GAO (2010) did not include data from FY 2009.

GAO (2010) also focused on reports of irregularities as captured through the OSD reporting process. For our report, the Army and Navy provided RAND with the underlying databases used to generate the OSD report, permitting us to create additional tabulations of the data. One of the conceptual difficulties highlighted by our Army and Navy tabulations in Table 4.1 is how to properly account for cases involving multiple applicants, multiple recruiters, or multiple violations of recruiting regulations that fall into different categories of wrongdoing. As an example, if two recruiters in a recruiting station engaged a third party to provide false documentation for a group of five recruits to facilitate their enlistment, reasonable arguments could be made for counting this hypothetical incident as a single irregularity (because there was a single systematic effort to conceal), two irregularities (because two recruiters were involved), five irregularities (because five applicants were involved in the irregularity) or ten irregularities (because two recruiters were involved with five applicants).

The values reported in GAO (2010) reflect some additional guidance given by OUSD to the services following the promulgation of its original reporting requirement. For example, OUSD directed the services to tabulate allegations so that there is one recruiter associated with each allegation and to tabulate the most severe allegation in cases involving a single recruiter and incident but violations spanning multiple categories. Thus, in the example in the previous paragraph, two irregularities would be counted in the service's report to OUSD because two recruiters were involved. However, in our tabulations in Table 4.1, we only count a single irregularity because it reflects a single incident.

Because of these differences in how we count irregularities, Table 4 of GAO (2010) indicates that the Army reported 1,681 irregularities to OSD in FY 2008 while in Table 4.1, we report 1,003 allegations of irregularities. However, we note that when we recalculate the number of irregularities applying the Army's OSD reporting rules, we obtain counts very similar to those reported in GAO (2010). In summary, our results in Table 4.1 highlight the fact that alternative logical methods for tabulating irregularities, such as counting the total number of recruiters or applicants involved versus counting incidents of irregularities (where multiple recruiters or applicants can be involved), will yield different numbers of irregularities. That said, both approaches yield the same overall finding, namely that the number of irregularities relative to recruiters or accessions remains small.

We note that there is no obviously optimal approach for counting irregularities when a given incident involves multiple recruiters, applicants, or violations. An approach that groups incidents that are related into a single irregularity appears sensible from the perspective of

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[3]   Through DEP applicants may sign an enlistment contract to enter the military, i.e., access, at a later date, as much as one year later. In the Army, the term DEP is being replaced by the "Future Soldiers Program."

minimizing overcounts of irregularities. For example, if a recruiter is in an inappropriate relationship with an applicant, an accounting scheme that defined each time the recruiter had an inappropriate contact with the applicant as a separate irregularity would lead to a large count of irregularities, when most people would probably consider this situation a single irregularity. At the same time, there may be some loss of information from the current procedures. For example, some might view a case in which a recruiter both engaged in an inappropriate relationship with an applicant and falsified the applicant's documents as different from the more common case of only falsifying documents, but current OUSD reporting guidance would be likely to view both cases as a single irregularity.

Perhaps less important than the precise choice of accounting rules, both the 2010 GAO report and our analyses above indicate that adopting clearer guidelines for the handling of cases involving multiple violations, recruiters, and applicants would improve the comparability of the irregularity data across services and over time. We conclude, in accordance with GAO, that OUSD should provide more-detailed guidance to the services on how to report these more-complex cases.

Analyses of Contract Data

The analyses in Chapter Four demonstrate that data on reported irregularities collected by the services and OSD indicate that in all four services only a small fraction of applicants and recruiters are involved in irregularities. Although informative, official data on irregularities may provide an incomplete picture of irregularities if a substantial fraction of irregularities are unreported. Moreover, capturing only data on the disposition of recruiters accused of irregularities may obscure other effects of irregularities, or more broadly, recruiter behavior, on the readiness of the military. One potential concern is that applicants who enlist due to irregularities and remain undetected may be more likely to perform poorly than typical recruits, reducing military effectiveness. Additionally, widely publicized individual incidents of irregularities might negatively affect public perceptions of the military and adversely affect the willingness of individuals to enlist.[1]

In this chapter, we use information from military contract and personnel records to better understand the overall incidence of irregularities, both reported and unreported, along with the effects of irregularities on some metrics of readiness. For this analysis, we focus on the Army, both because the Army accounts for a considerable fraction of substantiated irregularities, as demonstrated previously, and because the Army possesses the institutional arrangements and availability of detailed data best suited for this analysis.

The 2006 GAO report provides evidence that suggests that recruiters have the strongest incentives to engage in questionable conduct near the end of the recruiting month, when they are on the hook to meet their monthly recruiting goals. GAO uses data for the Chicago MEPS to show that irregularities are much more likely to occur near the end of the monthly recruiting cycle. In the case of the Army, the end of the contract month differs from the end of the calendar month. GAO's approach suggests that one potential method for measuring the incidence and consequences of recruiter behavior is to compare the characteristics of those enlisting near the end of the contract month to those enlisting at other times. If potential applicants are randomly distributed throughout the recruiting month, then differences in characteristics that we observe between these two populations reflect recruiters' responses to their incentives, including irregular behavior.

We caution that there is little guidance as to the precise nature of the recruiter behavior that may lead unqualified individuals to sign contracts under certain circumstances. Some of the findings we present below may reflect unconscious decisions of recruiters and not will-

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[1] We had originally intended to conduct an analysis examining whether local-area enlistments were responsive to occurrences of irregularities. Such an analysis would involve linking the location of recruiters involved in irregularities with the number of enlistments in those recruiters' local areas. However, because we did not have access to location information for guidance counselors and other nonproduction recruiters, we did not pursue this analysis.

ful actions to enlist applicants who are unqualified to enlist. In other words, the behavior we tabulate does not necessarily reflect recruiter malpractice or misconduct. For example, recruiters may unknowingly reduce the amount of verbal questioning of potential recruits near the end of the recruiting cycle, diminishing their ability to detect disqualifying factors. Recruiters may unconsciously fail to pay adequate attention in the final days of the recruiting month to disqualifying applicant characteristics or behavior because they want to ensure that contracts are processed by the end of the recruiting month and counted toward meeting monthly missions. Alternatively, these findings could arise as the result of overt decisions and, therefore, signify recruiter malpractice. For example, the behavior we tabulate may reflect attempts to convince individuals to conceal disqualifying information from MEPCOM. Or recruiters may purposely hide information they know will disqualify an applicant.

Although the precise extent to which the patterns shown below reflect misconduct or malpractice remains unclear, if questionable behavior is concentrated at the end of the recruiting month, as is suggested by GAO, and these characteristics are more prevalent when behavior is questionable, our comparison of outcomes by contract dates is likely to inform our understanding of how much such behavior affects Army readiness. Even if the behavior we observe is not misconduct, but simply poor screening induced by the incentives embedded in the quota and the incentive programs that recruiters face, our analyses provide an indication of the extent of this behavior and the implications for readiness. Below, we use "irregularity" and "questionable behavior," but we note that we use these terms with the foregoing assumptions and caveats in mind.

A key finding of this chapter based on evidence from Army contract data is that, under some assumptions, questionable recruiter behavior may be more common than the data on substantiated allegations presented in the previous chapter suggest. Furthermore, because we find evidence that recruits who signed contracts at the end of the recruiting month are more likely to separate for bad conduct, our analyses suggest that recruiter behavior has some adverse implications for readiness.

This chapter begins with a discussion of our overall approach in comparing contract characteristics by timing during the month when the contract was signed. We then present our findings on how contract characteristics vary with timing. At the end of the chapter, we provide tabulations that allow us to draw inferences about the incidence of detected and undetected irregularities in the Army and the assumptions required to make these inferences.

Overview of Approach

Our approach involves comparing applicants signing contracts at the end of the month with applicants signing contracts earlier in the month. Before describing this approach in more detail, we first provide information on the extent to which Army contracts are signed at the end of the month. Table 5.1 shows the frequency of Army contracts signed at the end of the month for two samples we use below, contracts signed between FYs 2005 and 2008, and contracts signed between FYs 2000 and 2008. We show different definitions of "end of the month," including the last five days of the contract month, the last two days, and the last day. We focus most of our discussion on the sample of contracts signed between FY 2005 and FY 2008. This approach allows us consider a recent period roughly comparable to the period analyzed

Table 5.1
Share of Army Contracts Executed in the Final Days of the Recruiting Month

	FYs 2005–2008		FYs 2000–2008	
	Number	Share	Number	Share
Total contracts	286,909	100%	676,869	100%
Signed on last five days of recruiting month	111,521	39%	252,704	37%
Signed on last two days of recruiting month	61,086	21%	141,857	21%
Signed the last day of recruiting month	37,021	13%	86,159	13%

NOTE: The source of the data is the U.S. Army Recruiting Command Enlistment Master File.

in Chapter Four and, in particular, excludes the FY 2002–2004 period when Army recruiting goals and the number of recruiters dropped substantially and temporarily (Asch, Heaton, and Savych, 2009). However, for some outcomes that are observed for only a subset of our contracts, such as separations, we also report results using all available years of contract data from 2000 through 2008.

Over a third of Army contracts are signed in the last five days of the recruiting month, and one in five are signed in the last two days of the month. Thus, a large fraction of contracts are executed in the final days of the recruiting month. The tables in the remainder of this chapter show the differences in the characteristics of contracts signed at the end of the month relative to earlier in the month.

We aim to compare the characteristics of contracts signed at the end of the month, when lax screening and/or irregularities are presumably higher given the recruiter incentive and quota systems, with the characteristics of those signed earlier in the month to quantify the extent and effects of recruiter behavior. The intuition behind this analytic approach is illustrated in Figures 5.1–5.4. Because applicants are unaware of the timing of the recruiter contract month, they have no reason to appear at recruiting stations on particular dates within the contract month. Rather, we expect that characteristics of potential applicants are roughly randomly distributed across the different days of the recruiting month. To illustrate this, Figures 5.1–5.4 plot the likelihood that individuals who signed a contract on a particular day of the recruiting month exhibit a particular characteristic relative to those signing contracts prior to the final week of the recruiting month. For this analysis, we focus on a sample of 278,424 Army non-prior service enlisted contracts that were signed during FYs 2005 to 2008. For example, the far right bar of 2.1 percent in Figure 5.2 indicates that those who signed contracts on the last day of a recruiting month were 2.1 percent more likely than those who signed contracts during the first several weeks of a recruiting month to report no religious affiliation. The bars thus indicate the extent to which individuals joining at a particular time during the recruiting month are anomalous relative to the broader population of Army recruits.

Figures 5.1 and 5.2 demonstrate that for two characteristics that are unlikely to be affected by recruiter behavior—whether an individual had a birthday in the latter half of the calendar year and whether an individual reported a religious affiliation at the time of enlistment—there is little evidence of important difference by recruiting calendar day of enlistment. Figure 5.3, however, demonstrates that those signing contacts on the day before the final day of the recruiting month and on the last day of the recruiting month were substantially more likely to attrite prior to accession than other recruits. In particular, rates of failure to access were 27 percent

Figure 5.1
Enlistees Who Were Born Between July 1 and December 31, by Contract Timing During the Army's Recruiting Month
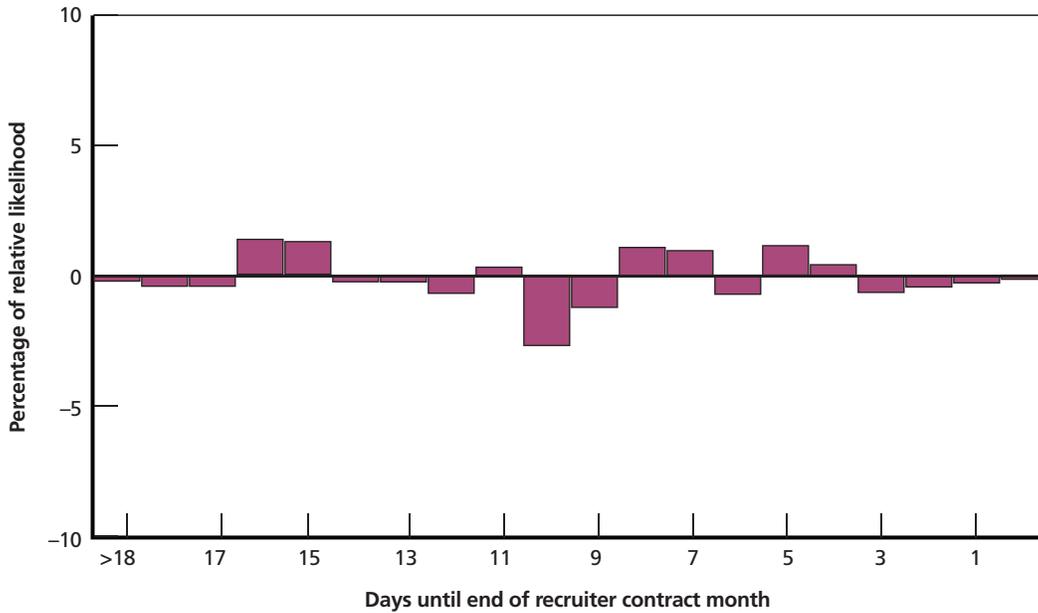
NOTE: This figure plots the incidence of a particular characteristic among recruits contracting on a particular day of the contract month relative to all recruits contracting prior to the final week of the month.
RAND *TR827-5.1*

higher among those signing contracts on the final day of the month than among recruits signing contracts earlier in the month. Similarly, Figure 5.4 indicates that those signing contracts on the final day of the month were 60 percent more likely to separate before their accession date because of a failed drug test or fraudulent enlistment than those singing contracts in earlier periods. Note that Figures 5.1–5.4 plot the incidence of a particular characteristic among recruits contracting on a particular day of the contract month relative to all recruits contracting prior to the final week of the month. For example, the reported value of 60 percent for zero days in Figure 5.4 means that recruits who sign up on the last day of the contract month are 60 percent more likely than recruits who sign up prior to the last week of the contract month to be separated because of fraudulent enlistment or a failed drug test.

One hypothesis, consistent with the patterns in Figures 5.1–5.4, is that recruiters fail to fully screen potential applicants when doing so may result in failure to achieve their monthly objectives. However, as discussed earlier, these patterns cannot conclusively demonstrate recruiter misbehavior, because we do not know whether the behavior involved willful intention on the part of the recruiter to enlist an applicant he or she knew to be unqualified or whether it involved unintentional actions.

To formalize the intuitive results from Figures 5.1–5.4, we next compare the mean characteristics of individuals who signed contracts prior to the final two days of the contract month with characteristics of those who signed during the final two days of the month. We conduct these comparisons by estimating simple regression models of each characteristic as a function of a variable that indicates whether the contract was signed at the end of the recruiting month or prior to the end of the month.

Figure 5.2
Enlistees with No Religious Affiliation, by Contract Timing During the Army's
Recruiting Month

NOTE: This figure plots the incidence of a particular characteristic among recruits contracting on a particular day of the contract month relative to all recruits contracting prior to the final week of the month.
RAND *TR827-5.2*

Comparisons of Army Contract Characteristics by Contract Timing

Results of our regression analysis are reported in Table 5.2. Note that these comparisons do not have controls for demographic or other characteristics of enlistees; if our assumption that potential applicants appear randomly with respect to date of the contract month is accurate, we would not expect to observe large demographic differences between the two groups. The table shows the mean characteristic among those who execute a contract during the final two days of the contract month and the mean among those who execute a contract prior to those two days. It also shows the estimated raw difference in means, the standard errors of the estimated absolute difference (computed two different ways),[2] the percentage difference, and the p-value. The p-value reflects a statistical test of the null hypothesis that means across the two populations are equal. The two different p-values in the table correspond to the two different methods used to compute the standard errors.

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[2]   We report standard errors and p-values that cluster at the day of the contract month, which allows for arbitrary error correlation between contracts signed at a particular point in the contract cycle. As an alternative test, we also conducted a simulation by reestimating our model 153 times, taking two-day combinations of other days in the contract month as the "treatment" observations. This test generates a distribution of effect estimates under the null hypothesis of no effect; we can use the location of the true effect estimate within this distribution to test whether it differs significantly from zero and from standard errors. This approach is likely to be preferred if the data exhibit other more complicated forms of clustering.

Figure 5.3
Enlistees Who Never Accessed, by Contract Timing During the Army's Recruiting Month

NOTE: This figure plots the incidence of a particular characteristic among recruits contracting on a particular day of the contract month relative to all recruits contracting prior to the final week of the month.
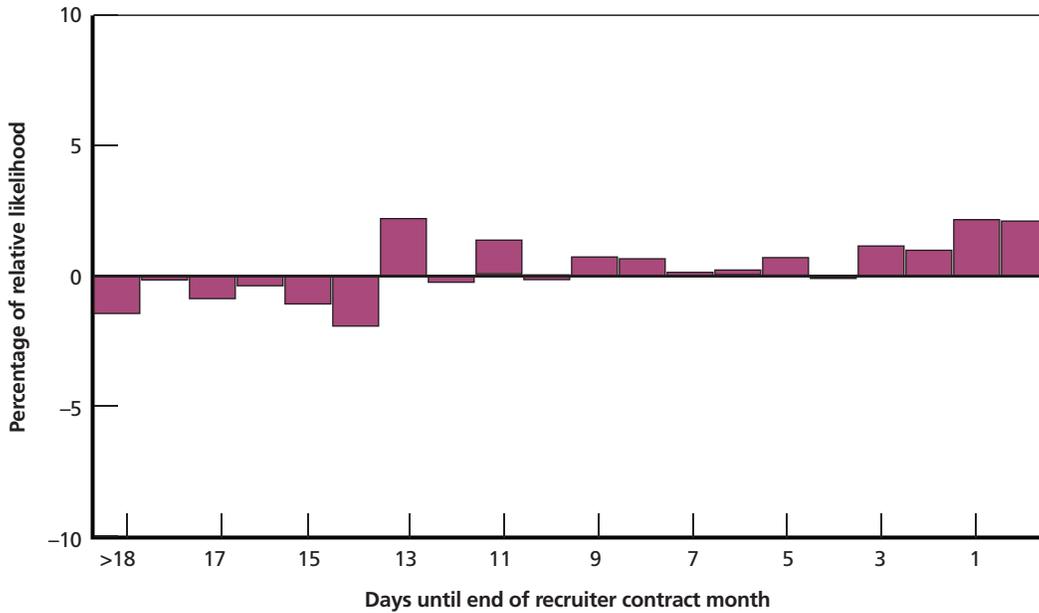RAND *TR827-5.3*

We first consider a set of enlistee characteristics that are unlikely to be affected by recruiter behavior, including gender, race, religious affiliation, birth date, and height. That is, the recruiter probably has little incentive to knowingly (or unknowingly) misrepresent these applicant attributes, nor does the recruiter have incentive to favor applicants with particular attributes. As expected, across these characteristics Table 5.2 reveals little evidence of important differences between those enlisting earlier or later within the recruiting month. For example, individuals contracting at the end of the recruiting month are 1 percent more likely to be male and 0.1 percent taller than individuals enlisting prior to the last two days of the recruiting month. Although for some characteristics these differences attain statistical significance because of our large sample size, as a practical matter, across these demographic traits there is little evidence of nonrandom selection.

We next consider a set of characteristics that may better reflect the quality of screening by recruiters because these characteristics are related to factors that determine qualification for service (Asch et al., 2009). The characteristics we consider are age, educational attainment, AFQT score, marital and dependent status, obesity status, low fitness rating, whether a recruit received a waiver, and DEP dropout risk score. Individuals enlisting near the end of the contract month are slightly older and have modestly lower AFQT scores (1.3 percent). New enlistees are 3.7 percent less likely to be high school graduates. Although overall a minority is married or has dependents, incidence of these characteristics is 7 percent and 9 percent larger, respectively, among those enlisting at the end of the monthly recruiting cycle. Across these particular characteristics, there is some evidence of selection at the end of the contract cycle toward individuals who are less likely to qualify for service, but differences remain relatively modest.

Figure 5.4
Enlistees with Fraudulent Enlistment and/or Failed Drug Test, by Contract Timing During the Army's Recruiting Month

NOTE: This figure plots the incidence of a particular characteristic among recruits contracting on a particular day of the contract month relative to all recruits contracting prior to the final week of the month.
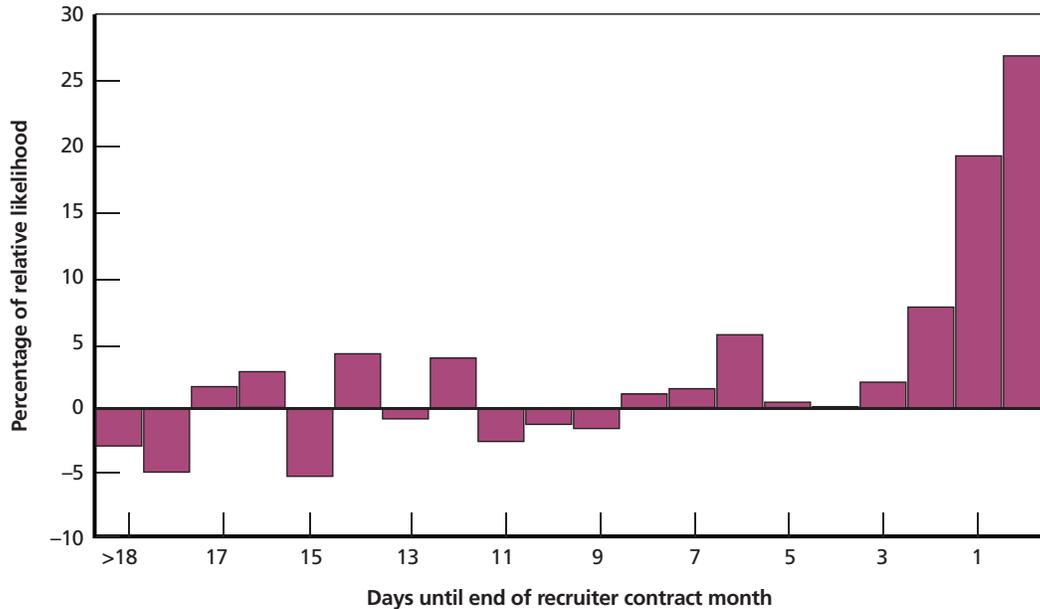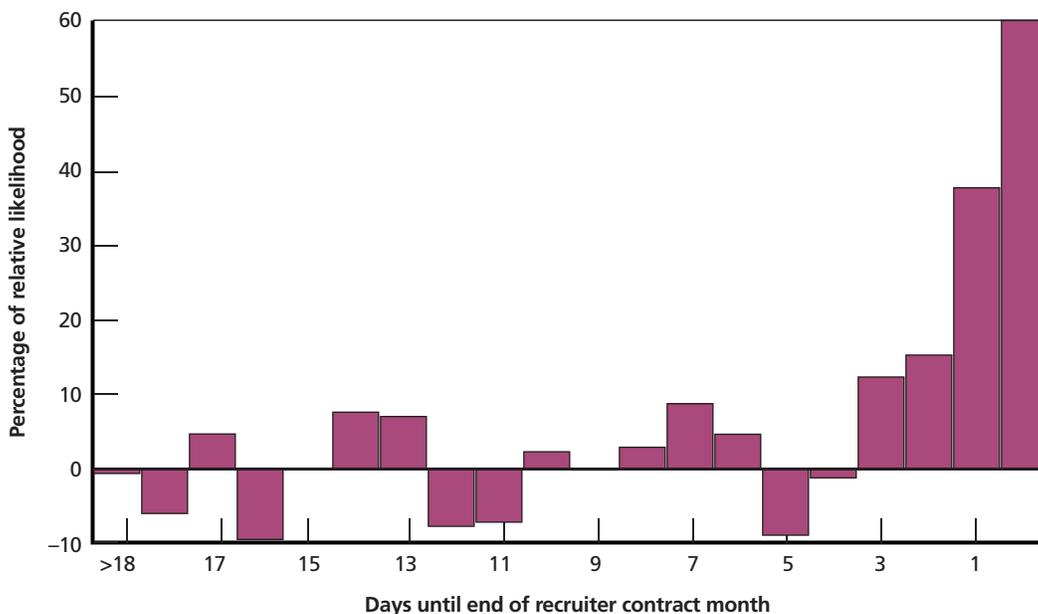RAND *TR827-5.4*

One means of summarizing the likely effects of these demographic differences is to consider the DEP Risk Assessment Profile (DEPRAP) score. DEPRAP is a risk scoring system used by the Army to predict the likelihood that an individual will attrite from DEP and not actually access, based on demographic characteristics (gender, education, the Armed Forces Vocational Aptitude Battery [ASVAB] score, and age) and time in DEP. Higher scores represent a higher probability of attrition from DEP. Table 5.2 demonstrates that there is no difference in DEPRAP score between individuals enlisting at the end of the month and earlier in the month. In other words, despite the differences in age, gender, and education among later recruits documented in the table, based on these characteristics alone we would not expect recruits enlisting at the end of the month to fare differently from other recruits in terms of DEP attrition.

Another indicator related to applicant qualification for enlistment is waiver receipt; applicants who receive waivers do not qualify for service under normal Army criteria but are allowed to enlist based on extenuating circumstances. Individuals enlisting at the end of the contract month are almost 50 percent more likely to require waivers than individuals enlisting at other times of the month. Because the waiver process involves acquiring permission for a waiver by varying levels of the chain of command, this discrepancy may partly reflect the behavior of individuals up the chain of command and not frontline recruiters. Clearly, however, the results indicate that those enlisting at the end of the contract cycle are less likely to meet the Army's standard qualification requirements than other recruits.

Table 5.2
Differences in Army Contract Characteristics by Contract Timing During the Recruiting Month (End of the Month Versus Prior to the End of the Month), FYs 2005–2008

Characteristic	Mean Among Enlistees at the End of the Month	Mean Among Enlistees Prior to the End of the Month	Absolute Difference	% Difference	P-Value
Male	83.2%	82.4%	0.8 (0.1) [0.4]	1.0%	.000 [.000]
Black	13.8%	14.3%	−0.5 (0.2) [0.4]	−3.5%	.012 [.026]
Hispanic	11.0%	11.1%	−0.1 (0.1) [0.3]	−0.7%	.428 [.784]
No religious affiliation	49.0%	48.0%	0.9 (.001) [.004]	2.0%	.000 [.000]
Born between July and December	51.6%	51.5%	0.1 (0.1) [0.3]	0.2%	.507 [.784]
Height (inches)	68.6	68.5	.051 (.014) [.032]	0.1%	.001 [.065]
Age	21.5	21.2	.281 (.063) [.065]	1.3%	.000 [.000]
Married	15.4%	14.3%	1.0 (.002) [.003]	7.1%	.000 [.000]
Has children	18.4%	16.8%	1.6 (0.3) [0.3]	9.5%	.000 [.000]
High school graduate	74.0%	76.8%	−2.8 (.9) [1.2]	−3.7%	.005 [.013]
AFQT score	57.7	58.5	−.743 (.327) [.388]	−1.3%	.032 [.065]
DEP dropout risk score	13.2	13.2	.001 (.001) [.002]	0.4%	.664 [.601]
Enlisted with advanced rank	38.4%	40.3%	−2.0 (0.5) [0.8]	−4.9%	.001 [.000]
Obese	11.8%	10.8%	1.1 (0.4) [0.2]	9.8%	.007 [.000]
Low fitness rating	11.3%	8.7%	2.6 (0.5) [0.4]	30.4%	.000 [.000]
Had waiver	20.0%	13.4%	6.6 (1.9) [0.8]	49.3%	.002 [.000]
Renegotiated contract	9.9%	8.8%	1.2 (0.1) [0.3]	13.3%	.000 [.000]
Never accessed	10.5%	8.5%	2.0 (0.2) [0.2]	23.2%	.000 [.000]
Contract cancelled because of fraudulent enlistment or failed drug test	2.7%	1.8%	0.9 (0.1) [0.1]	50.4%	.000 [.000]

NOTES: The absolute difference is an estimate based on a regression of contract time (last two days versus any day prior to the last two days of the contract month) on each characteristic. For outcomes measured as percentages, the absolute difference is the difference in percentage point units. The percentage difference is the absolute difference divided by the mean prior to the end of the month expressed as a percentage. The figures in parentheses are based on standard errors with clustering on the day of month, while the figures in brackets are based on simulated standard errors. In the column labeled "P-Value," the first figure is the p-value based on clustered standard errors, while the second figure, in brackets, is the p-value based on simulated standard errors. The sample size for these regressions is 286,908.

The final rows of Table 5.2 consider additional short-run contract outcomes. The data indicate whether an enlistee renegotiated the terms of his or her contract after signing the contract. Renegotiations might occur if enlistees are unsatisfied with their original contract terms or no longer meet qualifications for a particular occupation. In general, renegotiations occur for roughly 9 percent of contracts, but this rate rises to 10 percent at the end of the month, a 13 percent increase.

Some individuals who sign contracts fail to report to basic training. As Table 5.2 demonstrates, failure-to-access rates are 23 percent higher among individuals executing contracts on the last two days of the contract month. This pattern provides further evidence that the incentive system may lead to the recruitment of applicants with lower-than-average suitability for the military. At the same time, if many of the applicants who obtain contracts as the result of poor screening by Army recruiters fail to access, such behavior may have a relatively limited effect on overall readiness. Moreover, the costs of poor screening are likely to be lower if individuals who are poorly suited for the Army, yet still sign contracts, simply fail to access, because no training costs are incurred. The results in Table 5.2 suggest that those signing contracts at the end of the month, our proxy for lax screening and questionable recruiter behavior, are 23 percent more likely to "wash out" and never access, suggesting that to some degree the Army is able to catch those who are unsuitable for the Army before recruit training.

The last row shows contract cancellations due to fraudulent enlistment or a failed drug test as the outcome of interest. Such violations are relatively rare, occurring in fewer than 1 in 40 contracts. However, incidence of such enlistments is 50 percent higher among those signing contracts at the end of the month than among those signing at other times. This analysis provides direct evidence consistent with the GAO study that irregularities are concentrated near the end of the recruiting cycle.

Robustness Checks

A key conclusion from Table 5.2 is that recruits who sign contracts at the end of the month—when questionable recruiting practices appear most prevalent, given our assumptions—are less qualified than other recruits, are more likely to renegotiate their contracts, and are also more likely to leave before accessing. We next consider whether this conclusion is robust to alternative samples and empirical specifications. In the process, we also explore some possible explanations for our findings. Table 5.3 reports the results of our robustness checks. To facilitate comparisons across specifications, we report the percentage differences relative to contracts signed earlier in the contract month—as in the next-to-last column of Table 5.2. For comparison purposes, the first column of Table 5.3 (specification 1) replicates our findings in Table 5.2—i.e., the findings using the original sample, consisting of contracts from FY 2005 through FY 2008 and defining the end of the month as the final two days of the contract month.

Table 5.3
Differences in Army Contract Characteristics by Contract Timing During the Recruiting Month (End of the Month Versus Prior to the End of the Month) Under Alternative Specification

Outcome	Specification								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
	Original	**Contracts in FY00–01**	**Contracts in FY02–04**	**Recruiter Signed Contract Before End of Month**	**Five-Week Contract Months**	**Include Only Final Day of Contract Month**	**Include Final Five Days of Contract Month**	**Control for State/Time Interactions**	**Control for State, Time, and Demographics**
DEP dropout risk score	0.4% (1.01)	7.1%* (2.84)	5.5%** (1.10)	−0.2% (0.79)	−1.2% (1.01)	−0.7% (0.52)	0.9% (1.05)	−0.4% (0.97)	2.2%** (0.48)
Enlisted with advanced rank	−4.9%** (1.25)	−0.9% (2.40)	1.2% (1.42)	−6.2%** (1.32)	−5.1%** (1.75)	−5.9%** (0.55)	−3.9%** (1.21)	−5.2%** (1.29)	−4.2%** (0.85)
Obese	9.8%** (3.38)	7.2% (5.83)	8.0% (4.14)	11.0%** (4.16)	9.4%* (3.74)	13.2%** (0.63)	5.0% (3.33)	9.8%** (3.69)	8.1%* (3.45)
Low fitness rating	49.3%** (14.42)	69.4%** (20.86)	55.6%** (19.74)	55.8%** (13.18)	41.1%** (15.14)	62.0%** (2.78)	34.5%* (13.60)	46.7%** (12.94)	42.7%** (11.89)
Had waiver	30.4%** (6.21)	39.8%* (16.72)	38.2%* (15.67)	37.0%** (5.80)	29.2%** (7.27)	34.8%** (2.14)	21.9%** (7.18)	30.3%** (6.26)	28.6%** (5.92)
Renegotiated contract	13.3%** (1.18)	4.0%* (1.96)	10.5%** (1.12)	11.7%** (1.70)	9.1%** (2.55)	11.4%** (1.58)	10.1%** (2.60)	13.1%** (1.11)	12.1%** (1.10)
Never accessed	23.2%** (2.73)	23.1%** (2.22)	23.3%** (3.35)	14.7%** (1.06)	18.4%** (1.97)	24.0%** (1.78)	13.9%* (5.60)	20.9%** (2.57)	21.3%** (2.45)
Contract cancelled because of fraudulent enlistment or failed drug test	50.4%** (8.12)	30.5%** (11.73)	51.1%** (9.81)	41.2%** (5.65)	42.4%** (5.95)	54.0%** (3.58)	34.8%** (11.76)	48.6%** (8.02)	40.2%** (5.58)

NOTES: Clustered standard errors are reported in parentheses below each estimate of the percentage difference. Specification 1 replicates our findings in Table 5.2—i.e., the findings using the original sample, consisting of contracts from FY 2005 through FY 2008 and defining the end of the month as the final two days of the contract month. Estimates that are statistically significant are shown with asterisks.

* $p < 0.05$.

** $p < 0.01$.

In Table 5.3, specification 2 modifies the sample to only include contracts signed during FY 2000 to 2001 while specification 3 includes only contracts signed from FY 2002 to 2004. Comparisons between the results of these specifications and the original specification (1) provide some indication as to whether questionable behavior or lax recruiting at the end of the month has been rising or falling over time. In addition, GAO hypothesized that one factor leading to irregularities was pressure associated with recruiting during the Iraq War. Since the sample covering the period 2000 to 2001 occurs prior to the 2003 start date of the Iraq War, comparison of the results from this period (specification 2) and from specification 3, covering the period just after the Iraq invasion, provides some indication of the importance of the Iraq War in explaining irregularities.

Several results are notable. As shown by comparing specifications 2 and 3, we find that over time the DEP dropout risk scores of those enlisting near the end of the month have come to more closely resemble those enlisting before the end of the month. Given that the risk scoring system was first introduced in 1999, this pattern may reflect learning by recruiters on how to better manage risk scores, or it may reflect changes to the risk scoring formula that were implemented in 2001, 2003, and 2004. While obesity rates and contract renegotiations increased among end-of-the-month recruits between the 2000–2001 sample and the 2002–2004 sample, waivers and poor fitness reports actually fell. DEP attrition, as indicated in the row called "Never accessed," has remained relatively stable.

In summary, to the extent that the characteristics shown in Table 5.3 are indications of lax recruiting or questionable recruiter behavior, the comparisons between specifications 1–3 demonstrate that only certain indicators—for example, fraudulent enlistments and renegotiated contracts—worsened during the period 2002 to 2004. Other indicators, such as poor fitness and waivers, improved over this time period. Thus, these comparisons suggest a more nuanced portrait of recruiter behavior than is suggested by claims that such behavior was driven by the challenging recruiting environment faced by recruiters in the aftermath of the Iraq invasion. While we do not formally analyze the factors that led to the results shown in the table, we note that the Army's contract goal fell between 2000 and 2004, from about 113,000 contracts in FY 2000 to about 80,000 contracts in FY 2004, representing a roughly 30-percent decline. In contrast, the size of the Army's production recruiter workforce fell by less than 25 percent over this period. Since the quota fell faster than the number of recruiters, the average recruiter had a lower contract requirement, thereby reducing the pressure to sign contracts over this period and hence reducing incentives to engage in poorer screening.[3]

The next column of Table 5.3 attempts to further test our hypothesis that the less desirable outcomes and recruit characteristics at the end of the contract month are partly attributable to the structure of the Army's recruiter incentive program. In specification 4, we limit the analysis to contracts executed by recruiters who had successfully signed at least one contract prior to the final two weeks of the recruiting month. We hypothesize that recruiters who have already signed a contract early in the month might feel less pressure to engage in questionable behavior when facing a contract month deadline, because they are already eligible for their station-level award points. In other words, the incentive to overproduce relative to the quota may be less strong than the incentive to meet the quota. Therefore, other things being equal, for this set of recruiters, we might expect to observe smaller differences in contract character-

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[3]   These computations are based on Army recruiting data. Trends in contract goals and among recruiters are shown in Asch, Heaton, and Savych (2009).

istics and outcomes between contracts executed at the end of the month and those executed earlier in the month.

As shown in Table 5.3, we find that the incidence of waivers and low fitness ratings is higher, rather than lower, for specification 4 than for specification 1, counter to what we expected. One potential explanation for this finding is that successful recruiters who have already executed one contract may also be the same recruiters that station supervisors rely upon (and upon whom they exert the most pressure) to ensure the station makes its monthly quota. Without making the monthly station quota, no recruiter receives extra points, regardless of whether or not they executed one contract. In this case, peer pressure arising from the station-level incentive system provides comparably strong incentives for producing the first and subsequent contracts. Alternatively, recruiters may first execute contracts for their strongest applicants, in which case later applicants might have lower suitability for the military. On the other hand, we find lower rates of DEP attrition (i.e., nonaccession) and a lower likelihood of fraudulent enlistments for specification 4 compared with specification 1. Thus, we find some evidence consistent with the notion that the outcome differences documented previously reflect effects of the station-level incentives in the Army's recruiter incentive program.

In specification 5, we further test recruiter incentives as an explanation for our findings by limiting the analysis to contract months covering five calendar weeks rather than four. Recruiters may perceive less performance pressure in months that provide a longer window to sign contracts, although the effects of longer months on incentives are not completely apparent, given that goals might also be adjusted upward in longer months. End-of-the-month recruit quality is slightly higher in longer months, consistent with the notion that recruiters feel less pressure in longer five-week months relative to shorter four-week months to sign marginal recruits at the end of the month to make quotas.

The next two robustness checks in Table 5.3 examine whether our results are sensitive to how we define the end of the contract month. Specification 6 defines the end of the month to include only the final day of the recruiting month, rather than the last two days, as in the original specification, while specification 7 includes the final five days of the month. Although the magnitude of the effects diminishes somewhat relative to specification 1, overall these specifications generate conclusions consistent with our original findings.

Our original estimates make no effort to control for differences in demographics or other characteristics among recruits signing contracts during different times of the month. If the demographic characteristics of enlistees differ depending on the time of the month they sign their contracts, then a possible explanation for our results is that they are due to differences in the demographic characteristics of enlistees. While Table 5.2 demonstrates that in general such differences are modest, we explicitly control for such differences in specifications 8 and 9, as an additional check. Specification 9, in particular, controls for gender, race, age, AFQT score, educational attainment, marital status, and number of dependents, and it includes variables that represent the interaction between the state and the month of the year in which the contract was signed. Adding a richer set of controls does not materially alter our conclusions, indicating that our results are not due to differences in the demographics of enlistees at different times of the month.

Longer-Term Outcomes

To summarize the analyses above, we find evidence that recruiters are less likely to carefully screen recruits and more likely to sign marginal applicants at the end of the contract month,

leading to negative short-run contract characteristics and outcomes. As discussed earlier, poorer outcomes at the end of the month do not necessarily mean recruiters are guilty of misconduct or malpractice because such behavior may have been unintentional. However, for the one outcome that does clearly reflect misconduct (albeit not necessarily by the recruiter), fraudulent enlistment and/or a failed drug test, we also observe substantial increases at the end of the recruiting month. The evidence therefore suggests that undesirable behavior on the part of applicants and/or recruiters is more prevalent at the end of the recruiting month.

Ultimately, the extent to which lax screening or the enlistment of marginal applicants has negative consequences for the Army depends on the degree to which such applicants persist in Army service and perform differently from their peers. If these individuals separate while still in the DEP or during basic training, the negative consequences of questionable recruiter behavior may be fairly modest. Alternatively, if these individuals successfully enter the military but have substandard performance, the effects on readiness will be larger.

In Table 5.4 we consider longer-run indicators of performance, again comparing outcomes of individuals who signed contracts at the end of the contract month, when questionable behavior appears more prevalent, to individuals signing contracts earlier in the month. The top panel presents results using our original sample of individuals who signed enlistment contracts between FY 2005 and FY 2008. Because this sample provides a relatively short window of time for observing longer-term outcomes, appreciably reducing the number of available observations, we also present results in the bottom panel using a larger sample that includes all contracts signed between FY 2000 and FY 2008. For both samples, we restrict the data to only include individuals who actually accessed into the Army. For both samples, the difference in outcomes associated with enlisting at the end of the month versus earlier is estimated using a regression model that controls for enlistee age, sex, educational attainment, AFQT score, marital and dependent status, term of service, and dummy variables for state and month/year.

We first consider several measures of tenure within the Army. Given the substantial costs of training new personnel, it is obviously advantageous to the Army if it can retain rather than replace those who leave, other things being equal. The first row of Table 5.4 reports the effects of enlisting at the end of the month on the probability of serving less than one year beyond the accession date. Relative to our other measures of service length, an advantage of this measure is that it is observable for our entire sample. Overall, about 16 percent of accessions fail to complete one year of service, although in later years this proportion was only 11 percent. Differences in the likelihood of serving less than a year among those contracting at the end of the month versus before are quite small, and our estimates are sufficiently precise to rule out even relatively small positive effects. Although contracting during periods of laxer screening affects the probability of accession, among those who access, contracting during these periods is not predictive of rapid attrition.

We next consider an indicator of failure to complete the first term of service. Here, we limit the analysis to accessions where the first term of service would have ended by 2009, when our data were collected.[4] For the sample of FY 2005–2008 enlistees shown in the top panel, this requirement substantially limits our sample size, and we obtain a statistically insignificant point estimate that is actually negative. For the nine-year sample shown in the bottom panel, the coefficient is positive and statistically significant, but the magnitude of the difference is

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[4] We code anyone departing service less than 60 days before their contracted term of service as having completed their first term.

Table 5.4
Differences in Longer-Term Army Contract Outcomes by Contract Timing During Recruiting Month (the End of the Month Versus Prior to the End of the Month) FYs 2005–2008

Characteristic	Average Among Enlistees Prior to the End of the Month	Absolute Difference Among Enlistees at the End of the Month	Percentage Difference	P-Value
FY 2005–2008 Sample				
Served less than one year (N=247,262)	11.0%	−0.1 (0.2)	−0.9%	.560
Failed to complete first term of service (N=21,621)	31.3%	−0.3 (0.6)	−1.0%	.564
Median length of service (days) (N=56,215)	268	1.29 (1.25)	0.5%	.305
Bad conduct discharge (N=55,102)	25.2%	1.1 (0.4)	4.4%	.006
Discharge related to court-martial (N=55,102)	9.9%	−0.1 (0.2)	−1.0%	.562
Performance-related discharge (N=55,102)	1.1%	−0.1 (0.1)	−9.1%	.414
FY 2000–2008 Sample				
Served less than one year (N=521,706)	15.5%	0.2 (0.1)	1.3%	.185
Failed to complete first term of service (N=269,017)	36.1%	0.7 (0.1)	1.9%	.000
Median length of service (days) (N=227,640)	729	−3.63 (1.09)	−0.5%	.001
Bad conduct discharge (N=226,077)	20.5%	0.8 (0.3)	3.9%	.004
Discharge related to court-martial (N=226,077)	4.4%	0.0 (0.1)	0.0%	.826
Performance-related discharge (N=226,077)	1.3%	0.0 (0.0)	0.0%	.595

NOTES: For outcomes measured as percentages, the absolute difference is expressed in percentage point units. The percentage difference is the absolute difference divided by the average prior to the end of the month expressed as a percentage. The figures in parentheses are based on standard errors with clustering on the contract day. Differences are calculated controlling for enlistee age, sex, educational attainment, AFQT score, marital and dependent status, term of service, and state and month/year of enlistment. Samples sizes vary across outcomes because some individuals in the sample have not yet reached the end of their first term of service and some have not yet been discharged from the military.

small. Individuals enlisting at the end of the contract month are 0.007 percentage points, or about 2 percent, more likely to fail to complete their first term of service than otherwise similar enlistees. As a comparison, in these regressions the estimated marginal effect (standard error) for the nongraduation indicator was 0.125 (0.015), while the effect of having a dependent at the time of enlistment was 0.046 (0.006). The effect of enlisting at the end of the month on first-term attrition thus represents about 1/17 of the difference associated with being a high school dropout versus a graduate and 1/6 of the effect of having a dependent at the time of enlistment.

As a final measure of service length, we consider the total days of service prior to separation.[5] Although we observe no difference in length of service by enlistment timing for the more recent sample shown in the top panel, our estimates indicate that median length of service is 3.6 days shorter among those enlisting at the end of the month for the longer sample shown in the bottom panel. Although this estimate is statistically significant, it is very small relative to the median service length of two years; in practical terms, the difference across groups in service length is minimal. Overall, our analyses suggest that differences in service length that can be attributed to poorer screening at the end of the recruiting month are modest at best, and the differences appear to have actually moderated in recent years.

For those who separate from the Army, the data also indicate the reason for separation, thereby providing another set of outcomes that can be used to indirectly examine the effects of end-of-the-month recruiter behavior on readiness. Among the almost 270,000 enlistees in our sample who separated prior to 2009, roughly 30 percent separated for medical reasons, 30 percent separated for completed service, and 30 percent for conduct-related problems. We focus our attention on three separation-related outcomes: (1) administrative bad-conduct separations, which typically involve less serious violations of Army regulations, such as drug abuse, absence without leave, or insubordination; (2) court-martials or separations in lieu of court-martial—which typically involve individuals thought to have committed serious infractions of the Uniform Code of Military Justice; (3) and separations due to poor performance. Each of these outcomes provides a direct measure of recruit behavior that is detrimental to Army readiness.

In the remainder of Table 5.4, we report results from our analysis of reasons for separation. In both the recent sample at the top and the nine-year sample shown at the bottom of the table, we observe no evidence of a difference in rates of discharge due to court-martial or poor performance among those contracting at the end of the recruiting month versus earlier in the month. In the larger sample, our estimates are sufficiently precise as to rule out substantial differences in these outcomes by contract timing. For example, the 95 percent confidence interval for our estimate for court-martial-related discharges can exclude 4.4 percent higher incidence among those enlisting at the end of the month.

A key finding in Table 5.4 is that bad conduct discharges are more likely among those contracting during periods of less stringent screening. Across the two samples, bad conduct discharges are 0.8 to 1.1 percentage points, or 4 to 5 percent, more likely among those contracting at the end of the month, and these differences are highly statistically significant. This result is in contrast to the other findings in the table that indicate that these recruits have the same propensity as those contracting earlier in the month to attrite during the first year, to complete their enlistment term, and to be discharged for performance-related problems or for a court-martial. These behavioral problems do not seem to translate into higher attrition or a lower likelihood of contract completion. Nonetheless, such problems might be disruptive to a unit and therefore detrimental to readiness. Furthermore, we do not measure the extent to which bad conduct leading to a discharge adversely affects the morale and performance of peers or the extent to which drill sergeants and training instructors must devote extra time to

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[5] We estimate the effects of enlistment at the end of the month using a duration model, which allows us to adjust for the influence of demographic and other characteristics on length of service. Because many of the individuals in the sample were still serving at the time of data collection, our sample is truncated. The values in Table 5.4 are estimated using a model based on a generalized gamma survival function; estimation using a Cox proportional hazards model yielded similar results.

managing and disciplining recruits with poor conduct. Such spillover effects could adversely affect readiness, but they are not captured in our data.

Inferring the Incidence of Undetected Irregularities

We cannot disentangle the degree to which our finding related to bad-conduct discharges is due to a higher prevalence of contracts signed at the end of the month under questionable circumstances (i.e., prevalence) or to large differences in bad conduct between those who sign contracts under questionable versus normal circumstances (i.e., severity). If the prevalence of poor screening at the end of the month is low, the 4 to 5 percent higher likelihood of bad conduct discharges among those signing under irregular circumstances is primarily due to "severity," i.e., a much higher incidence of misconduct among those who are improperly screened. On the other hand, if misconduct is relatively rare (i.e., severity is low), then the 4 to 5 percent figure is due to widespread prevalence of poor screening at the end of the month.

Perhaps somewhat surprisingly, with a fairly modest set of additional assumptions, we can use our observations regarding the change in outcomes that occurs among those who are enlisted at the end of the month to draw inferences regarding the incidence of *detected and undetected* irregularities in the Army. An obvious drawback of comparisons that focus on detected or reported irregularities, such as those in the GAO reports or Table 4.2 above, is that low incidence of irregularities may reflect the true absence of irregularities or may simply result from an inadequate detection mechanism, or even learning over time on the part of recruiters to better hide such irregularities from detection. This alternative approach provides an additional means of testing our primary conclusion that irregularities are not widespread in the Army, even if not all irregularities are actually detected.

Two observations drive the intuition of this analysis. First, irregularities that are unobserved by the Army still have a negative consequence for readiness, such as bad conduct on the part of the recruit, resulting in a discharge. Second, while the irregularities may be unobserved, the negative consequences of those irregularities can be observed and measured. With some idea of the increase in irregularities that occurs at the end of the month and an idea about the rate at which irregularities translate into bad conduct discharges, we can infer the rate of detected and undetected irregularities just from patterns in bad conduct discharges.

Two assumptions are necessary for using the higher prevalence of bad conduct discharges (or any other outcome) among those who sign contracts at the end of the month to measure possible undetected irregularities. These assumptions are shown formally in Appendix B. The first assumption is that the prevalence of the outcome is higher among those who enlist under irregular circumstances than among normal enlistees. The second assumption is that detected and undetected irregularities are more common at the end of the month than earlier. If the rate of irregularities does not change at the end of the month or if irregularities do not affect the rate at which our outcome occurs, we would not expect any change in the incidence of the outcome at the end of the month, because this represents the product of those two rates.

Because recruiters are managed by incentive and quota systems that encourage monthly contract production, it seems reasonable to believe that the second assumption is true, namely that irregularities are more likely to occur at the very end of the month when recruiters are "on the hook" to meet their quotas. The results presented in Table 5.4 demonstrating lower qualifications, higher DEP attrition, and higher rates of detected irregularities (fraudulent enlist-

ments) among those enlisting at the end of the month also provide strong evidence in favor of this assumption. Whether the first assumption holds true likely depends on the particular outcome under consideration. For example, it is questionable whether irregularly contracted individuals who access would have poorer physical conditioning than other recruits given that all recruits are required to participate in physical training during basic training. However, other outcomes seem more logically related to irregular enlistment. In the discussion that follows, we focus on bad conduct discharge, which we view as intuitively more likely to occur for individuals recruited under irregular circumstances.[6]

Appendix B derives a formula that can be used to calculate the share of contracts, $\bar{s}$, involving both detected and undetected irregularities as a function of the increase in the rate of irregularities that occurs at the end of the month (k), the percentage increase in the rate of bad conduct discharges among those involved in irregularities relative to normal recruits (Δ),[7] the percentage increase in bad conduct discharges for those signing contracts at the end of the month (p), and the share of those signing contracts at the end of the month (q). Our estimates above indicate that for the overall sample, p equals 3.9 percent (Table 5.4, 0.008/0.205), and for this sample we can calculate q to be 21.7 percent (Table 5.1). The variables k and Δ are unobserved, and to estimate the degree of detected and undetected irregularities, we must assume values for these variables.

What are appropriate choices for k and Δ? In our prior discussion, we demonstrated that contract cancellations due to fraudulent enlistment increased by 50 percent at the end of the month, waivers increased by 50 percent, and nonaccessions increased by over 20 percent (Table 5.2). If undetected irregularities follow a similar pattern as detected irregularities and other indicators of fitness for military service, this suggests an appropriate value for k in the range of 20 percent to 50 percent. The data provide less guidance on the proper value for Δ. However, given that roughly 25 percent of separations among contracts in FY 2005–2008 ended in a bad conduct discharge, it seems less likely that the rate of bad conduct discharges among the normally recruited population is extremely low. This naturally bounds the value of Δ; for example, if 10 percent of the normally recruited population ends up with bad conduct discharges, then the maximum value for Δ is 10, in which case 100 percent of irregularly recruited individuals receive bad conduct discharges.

Table 5.5 presents the implied rates of irregularities, $\bar{s}$, both detected and undetected, under varying assumptions regarding the rate of increase in irregularities at the end of the month (k) and the relative incidence of bad conduct among irregular enlistees (Δ). For completeness, we present estimates corresponding to a fairly wide range of potential values for k and Δ, although based on our discussion above, we expect that the true values of k and Δ are most likely to fall, respectively, within the shaded areas of the table. Table 5.5 indicates, for example, that if bad conduct discharges are twice as likely among irregular recruits (i.e., Δ = 100 percent increase) and irregularities increase by 50 percent at the end of the contract month (k = 50 percent), then it must be the case, according to the formula in Appendix B, that 9.4 percent of overall contracts involve irregularities.

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6 Clearly, if applicants are complicit in violating Army regulations at the time of entry, they would probably be more willing to violate regulations at later points during their service, which could ultimately lead to a bad conduct discharge. Even if the irregularity solely reflects recruiter behavior, it seems reasonable to think that individuals who do not fulfill the Army's basic requirements for enlistment would have greater difficulty conforming to the Army's rules and regulations.

7 By "normal" we mean enlistments that were not associated with recruiter irregularities.

Table 5.5
Estimated Share of Contracts Involved in Irregularities Under Alternative Assumptions

Assumed % Increase in Bad Conduct Among Irregular Contracts (Δ)	Assumed % Increase in Irregularities at the End of the Month (k)	Implied % of Contracts with Irregularities ($\bar{s}$)
10	5	>100
50	5	>100
100	5	>100
200	5	>100
500	5	71.7
1,000	5	35.8
10	10	>100
50	10	>100
100	10	65.3
200	10	32.7
500	10	13.1
1,000	10	6.5
10	25	>100
50	25	39.0
100	25	19.5
200	25	9.7
500	25	3.9
1,000	25	1.9
10	50	93.8
50	50	18.8
100	50	9.4
200	50	4.7
500	50	1.9
1,000	50	0.9
10	100	49.4
50	100	9.9
100	100	4.9
200	100	2.5
500	100	1.0
1,000	100	0.5

Table 5.5—Continued

Assumed % Increase in Bad Conduct Among Irregular Contracts (Δ)	Assumed % Increase in Irregularities at the End of the Month (k)	Implied % of Contracts with Irregularities ($\bar{s}$)
10	200	28.5
50	200	5.7
100	200	2.9
200	200	1.4
500	200	0.6
1,000	200	0.3
10	500	16.4
50	500	3.3
100	500	1.6
200	500	0.8
500	500	0.3
1,000	500	0.2

SOURCE: Authors' computations using the formula derived in Appendix B.

NOTE: We expect that the true values of k and Δ are most likely to fall, respectively, within the shaded areas.

Table 5.5 demonstrates that to achieve plausible values for the share of contracts involving irregularities (the shaded rows in the table), it must be the case that either irregularities are much higher at the end of the month or irregular recruits are at much higher risk of engaging in bad conduct. Put differently, it cannot be the case that irregularities generate small increases in bad conduct and that the contract cycle generates only modest increases in irregularities. If both of these statements were accurate, there would be a much smaller change in bad conduct discharges at the end of the month than we actually observe.

Focusing on the most plausible values of k and Δ, we observe estimates for the rate of irregularities in the range of 1 percent to 10 percent. The average rate of irregularities across our most plausible range of values is about 4 percent, meaning that 1 out of every 25 contracts would be involved in a detected or undetected irregularity. This rate is above the roughly 1 percent of accessions involved in substantiated allegations of irregularities reported in Tables 4.1 and 4.2, but still represents a fairly small fraction of all contracts. Thus, even if we allow for the possibility that irregularities are unreported, for the most plausible modeling scenarios in Table 5.5, it appears that a relatively modest fraction of contracts is likely to be affected by irregularities.

Conclusions

The main finding of this report is that recruiter irregularities are uncommon. When measured in terms of substantiated allegations using the services' data for tracking allegations, about 1 allegation per 1,000 applicants can be found. Between 1 to 3 percent of the recruiter workforce is involved in substantiated allegations in a given year. Furthermore, applicants involved in substantiated irregularities represent about 0.1 percent of total accessions. These findings are consistent with the findings of the January 2010 GAO report.

Since it seems unrealistic to expect zero allegations, the results suggest that irregularities are a minor problem. Nonetheless, we note that it is quite possible that only allegations that have a relatively high chance of being substantiated are reported. Given that recruiting is a relatively independent activity, especially for recruiters assigned to one-person stations, it seems likely that the opportunity to substantiate allegations may be limited. Even recruiters who are assigned to stations with other recruiters may be difficult to monitor at all times, given that recruiters spend most of their time out of the station and alone, seeking applicants. Thus, in theory it is possible that our tabulations substantially undercount actual irregularities.

Thus, we consider an indirect approach to measuring irregularities, namely comparing the incidence of contract characteristics that could be related to irregularities among Army contracts signed at the end of the recruiting month relative to their incidence among contracts signed earlier in the month. Because potential applicants are typically unaware of the recruiting calendar, applicants are likely to appear randomly with respect to the recruiting month. However, because Army recruiters are managed by an incentive program and quota system that encourage contract production by the end of the recruiting month, lax screening and/ or irregularities may be more prevalent at the end of the recruiting month. Such changes in screening quality would be manifest in characteristics reflective of lower suitability for military service among applicants signing contracts near the end of the recruiting month

Using Army contract data, we find a higher incidence of recruits who are obese, who have low fitness ratings, who require waivers, and whose enlistment is terminated for being fraudulent among contracts signed at the end of the recruiting month relative to those signed earlier in the recruiting month. We also find that contracts signed at the end of the month are more likely to be renegotiated and less likely to lead to accession. While GAO suggests that one reason for a higher incidence of irregular contracts at the end of the month is the pressure on recruiters to meet their missions during a time of war, we observe no obvious increase in indicators of possible irregular behavior among recruiters when we compare contracts executed before and after the start of the Iraq War. However, it is possible that there is no obvious increase because over this period, recruiting goals fell faster than the size of the production recruiter workforce, so pressure to recruit, and the incentives to recruit marginal applicants,

was lower. Again, we note caution in concluding that the observed patterns are due to recruiter irregularities. Such patterns could be due to unintended behavior or more-lax screening rather than willful misconduct.

We also explore whether those recruits who signed contracts at the end of the month, when poor screening is presumably more prevalent, have poorer subsequent performance in the Army than those contracting earlier in the month. We observe few differences in likelihood of staying in the Army across the two groups using several measures, including early separation, total days of service, and separation prior to the end of the original term of service. Court-martials and poor performance discharges also occur at similar rates across the two populations, but bad conduct discharges are 4 to 5 percent more common among recruits who signed their contracts at the end of the month. Thus, the analyses suggest that recruits who sign their contract at the end of the month do not necessarily leave sooner than other recruits, but they may adversely affect readiness through poor conduct. They may also adversely affect readiness by hurting the performance and morale of their peers, but we are unable to measure these effects with the data available.

We developed a method for inferring the overall extent of unreported irregularities in the Army based on a set of assumptions we view as plausible. Ultimately we do not know if the higher incidence of bad conduct discharges for contracts signed at the end of the month represents a large increase in recruiter misbehavior at the end of the month coupled with a small impact of misbehavior, or a small change in recruiter misbehavior combined with a large impact of misbehavior on bad conduct discharges. However, for the most plausible ranges of values for these two variables, the implied overall rate of irregularities in the Army is modest, ranging from 1 to 9 percent of contracts. Although this analysis is not fully conclusive, it suggests that even with better data covering unreported irregularities, we would still arrive at the same basic conclusion that irregularities are uncommon.

Although substantiated allegations are relatively rare when compared with the size of the recruiter force or the number of applications, there were still 238 substantiated allegations in 2009 with 48 percent of these occurring in the Army. Our analyses of the characteristics of Army contracts by contract timing suggest that recruiter misbehavior or lax recruiting is not solely the result of the pressures associated with recruiting during wartime or solely caused by the incentive systems. We conclude that more information is required regarding what factors lead to misbehavior or lax recruiting.

Our analyses of contract data are based on Army data, so a key question is: For the other services, how relevant are the conclusions we draw? Since we do not analyze the contract data for the other services, we can only speculate about the answer to this question. Like the Army, each of the other services relies on a monthly quota system and a recruiter incentive system to manage recruiters, though the specific details of these systems may differ from that of the Army's. Thus, it seems likely that our results, at least qualitatively, are relevant to the other services, though specific estimates must await additional research that uses contract data for those services.

Because of continued differences in how the services track and report irregularities, we recommend that OUSD provide clearer guidance to the services on how to track and report irregularities. OUSD should especially provide more details about how to report situations when multiple recruiters are involved in a single allegation and when a given recruiter is involved in multiple categories of allegations at a point in time. Should the services report only the worst allegations or all of them? In addition, the services seem to use different criteria for

determining whether an allegation is serious enough to report. Each service conducts preliminary investigations, but they seem to differ in whether allegations that are deemed less serious are reported. In the Air Force and Marine Corps, over 50 percent of allegations were substantiated in 2007 and 2008, whereas in the Navy and Army, far fewer allegations are substantiated. These findings suggest that the Air Force and Marine Corps are more likely to exclude cases in which preliminary investigation suggests that there is no evidence of a substantiated allegation, while the Army and Navy are more likely to include these. OUSD should provide more guidance on how to report these cases.

It would also be helpful for OUSD to define subcategories of concealment and falsification, the most common category of irregularity. Currently, it is unclear what information is concealed or falsified. Without understanding whether most cases involve medical conditions, ASVAB testing, dependency status, or other eligibility criteria, it is difficult to identify what aspects of the enlistment process require greater oversight or possible reengineering.

We explored merging information from the improprieties databases maintained by the Army and Navy with databases of contracts and recruiters but were limited somewhat by available data. Combining data from multiple sources would be useful to commanders and other decisionmakers because the combined data could be analyzed to reveal patterns of irregularities as well as the effects of alternative polices to reduce irregularities. Therefore, we recommend that the services continue their efforts to improve the quality of the databases used to track irregularities and continue to work toward ensuring the integrity of their data.

Our assessment of changes in the quality of applicant screening over the course of the recruiting contract month provides a provocative but ultimately incomplete analysis of this feature of the recruiter management system. Although our data clearly suggest the Army's calendaring system may lead to some types of undesirable behavior by applicants or possibly recruiters, this system may also facilitate the enlistment of marginal but ultimately successful individuals. Even more important, studies of the recruiter management system consistently show that quotas and incentives are effective in motivating recruiters to increase their production of high-quality recruits (Asch, 1990; Dertouzos and Garber, 2006). Thus, even if the current quota systems lead to some irregularities, the benefits of the current systems in terms of their effects on high-quality enlistment may outweigh the costs. Further research illuminating the tradeoffs between effective recruiter production incentives and the potential for inappropriate behavior in response to those incentives is warranted.

Finally, our analyses of the factors that lead to reported and unreported irregularities, including the recruiter management system, are exploratory. Future research should examine these factors more systematically, and it should provide more-refined estimates of unreported irregularities. In addition to recruiter management, other factors that should be considered are recruiter characteristics—such as experience and, where relevant, whether the recruiter is a contract recruiter or a service member—and aspects of applicant processing that might lead to irregularities, such as the waiver process. Such analyses could help inform policies to reduce the incidence and severity of recruiter irregularities.

Overview of Recruiting Policies and Procedures Regarding Improprieties

One of the challenges identified in the 2006 GAO report was the lack of standardization across services in methods for defining and reporting inappropriate recruiter behavior. Over the past several years, the services have made progress in implementing a common set of reporting and tracking practices. Nevertheless, important differences across services remain. This appendix briefly summarizes each service's policies and procedures for handling recruiter improprieties. It begins with definitions of different forms of recruiter improprieties.[1] In the discussion that follows, we use recruiter "improprieties" and recruiter "irregularities" to refer generically to any undesirable behavior by recruiters related to the contracting and processing of military applicants.

Definitions

The 2006 U.S. Office of the Under Secretary of Defense memorandum focuses on eight broad categories of recruiter improprieties, which are referred to as recruiter "irregularities." Reporting is required for cases involving allegations falling within one of these categories, including cases that may ultimately be unsubstantiated. These categories and their definitions are as follows:

- Criminal misconduct: Behavior that can result in a court-martial or civilian conviction (and does not fall in another category).
- Sexual misconduct: A subcategory of criminal misconduct that includes rape, sexual assault, and statutory rape.
- Sexual harassment: Behavior that includes unwelcome sexual advances, requests for sexual favors, and other conduct of a sexual nature.
- Fraternization or unauthorized relationship with an applicant: Any personal relationship between a recruiter and an applicant that is unduly familiar, including dating, recreation, and dining.
- Concealment or falsification: Knowingly withholding, altering, or fabricating information, including using false diplomas, or advising an applicant not to disclose relevant information, including medical information.

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[1] This section draws heavily from the following documents: U.S. Department of the Navy (2002, 2009a, 2009b, 2009c), U.S. Army Recruiting Command (2009), U.S. Air Force Recruiting Service (2005), and U.S. Marine Corps Recruiting Command (1987, 1997, 2006 2009).

- Testing irregularities: Compromising tests, including providing questions, cheating, and using "ringers" or substitutes.
- False promise/coercion: Misrepresenting the benefits, entitlements, and other aspects of service or threatening an applicant if he or she fails to enlist.
- Quality control measures: Irregularities resulting from administrative oversight.

While the services are directed to use these definitions and categories when they report irregularities to OSD, the services use their own terminology to describe inappropriate recruiter behavior. The Army uses the term recruiter "impropriety." Recruiter "impropriety" is a broad concept that refers to (1) grossly negligent actions by recruiters that intentionally violate written policies, directives, and established procedures resulting in a fraudulent, erroneous, or defective enlistment, (2) acts or omissions that violate laws or regulations with the intent to enlist a person or access a future officer who is not qualified for service, or (3) actions or omissions that are intended to grant a person a specific option or benefit for which the applicant is ineligible. In this context, grossly negligent actions are defined as those that show a high degree of carelessness and that recklessly disregard policies and the likely consequences of disregarding those policies.

The Navy and Air Force distinguish between malpractice and misconduct. Malpractice refers to actions that affect the enlistment qualifications of applicants. More specifically, malpractice includes a range of actions such as the concealment of or advising an applicant to conceal disqualifying information, as well as falsifying information or assisting in falsifying information pertinent to the qualification of an applicant. Such actions also include providing applicants with qualification test material or versions of the ASVAB or using "ringers" or imposters to take a physical examination or the ASVAB examination for the applicant. In addition, malpractice includes actions that involve giving or advising applicants to use medication or remedies that could affect drug test results or involve recommending, informing, or assisting applicants regarding the transfer of custody of minor children that could affect applicant qualification. Malpractice also includes intentional actions that mislead or misinform applicants about recruiting policies, benefits, and entitlements or that interfere with the civilian criminal process, by influencing lawyers, law enforcement officials, or judicial authorities to release, dismiss, or drop charges that could disqualify an applicant. Also considered malpractice are threatening, coercing, or intimidating an applicant to report to active duty.

Misconduct refers to behaviors that do not affect enlistment qualifications but that violate military regulations and policies. For example, misconduct includes sexual harassment of applicants, fraternization with applicants, or abuse of government resources, such as government-owned vehicles. Fraternization covers a range of behaviors including forming or attempting to form a private and unofficial social relationship, giving a ride in a government vehicle for unofficial purposes, using personal resources to provide an applicant with lodging or transportation, sponsoring an alien for permanent residence in the United States, and engaging in unofficial financial or business dealings with an applicant. In contrast to the OUSD definition of "recruiting irregularities" described above, the Air Force internally defines recruiter irregularities as any other recruiting infraction that is not covered by the definition of malpractice or misconduct.

Another useful, and related, definition is that of a fraudulent enlistment. A fraudulent enlistment is one in which information is deliberately misrepresented, omitted, or concealed *by the applicant*, and which, if known at the time, may have resulted in the rejection of the appli-

cant. It is important to recognize that fraudulent enlistments may occur without any incidence of recruiter irregularity. For example, the recruiter may have done due diligence to ascertain the correct information about the applicant, but the applicant concealed or misrepresented information relevant to the applicant's qualification. On the other hand, it is also possible that both the applicant and recruiter were aware of information that disqualified the applicant, and consequently, the fraudulent enlistment was accompanied by recruiter irregularity.

Finally, the definition of an erroneous enlistment is one in which an enlistment would not have occurred had all the facts been known at the time of enlistment. An erroneous enlistment may occur without the deliberate omission or concealment of information by the applicant or with any incidence of recruiter impropriety. Thus, an erroneous enlistment may be the result of an "honest mistake" rather than of deliberate actions by the applicant or of intentional and negligent actions by the recruiter. For example, an erroneous enlistment might occur if an applicant is found after enlistment to have a previously undetected disqualifying medical condition.

Reporting and Investigating Allegations of Recruiter Improprieties

Each service requires that actual or suspected recruiting improprieties are investigated. While the specific procedures for reporting and investigating possible recruiter improprieties differ somewhat, the services take quite similar approaches in addressing them. This subsection provides a general overview of these procedures. More details can be found in U.S. Department of the Navy (2002, 2009a, 2009b, 2009c), U.S. Army Recruiting Command (2009), U.S. Air Force Recruiting Service (2005), and U.S. Marine Corps Recruiting Command (1987, 1997, 2006, 2009).

Recruiter improprieties are investigated following an allegation or admission of impropriety. There are different potential sources of allegations, including congressional inquiries, complaints made by applicants or delayed entry personnel or their parents, other recruiters, as well as complaints received from hotline calls (in the case of the Navy). Alternatively, recruiter improprieties may surface because a commanding officer or other authority suspects a questionable situation. For example, a 20-point or greater increase in an ASVAB retest or the loss of drug and alcohol tests may lead to suspicion of recruiter impropriety. The services differ in some cases in who has responsibility for implementing the procedures for investigating allegations and suspicions of impropriety.

In the Air Force, complaints are referred up the chain of command. The recruiting group and squadron commanders take the lead in investigating allegations of recruiter improprieties, working in consultation with the base legal office or the Air Force Recruiting Service Judge Advocate's office (AFRS/JA). The group or squadron commander is responsible for making the decision to conduct a formal investigation but is required to only make the decision after consultation with AFRS/JA. The group or squadron commander is also responsible for appointing an investigating officer, for getting legal advice and guidance from AFRS/JA or the base legal office, and getting a legal review prior to the determination of the merits of the findings of the investigation. In addition, he or she is responsible for reporting the initiation of a commander-directed investigation as well as the results of the investigation to AFRS/JA and to the AFRS Inspector General if that office referred the investigation to the commander.

In the Army, allegations and suspicions of impropriety are also reported up the chain of command. The USAREC Directorate of Recruiting Standards reviews the allegation and suspicion as well as any supporting documentation to determine whether an investigation is necessary. If it is, the information is sent to the appropriate recruiting brigade and battalion personnel, and the battalion commander is responsible for appointing an investigating officer and overseeing the investigation at the battalion level. Army regulations provide detailed guidance on the investigating officer's responsibilities. These include reviewing all material and documents, taking face-to-face sworn statements from witnesses as needed, obtaining pertinent evidence and information, documenting the investigation, and reporting findings. In addition, the investigating officer must provide a Privacy Act statement to witnesses and execute the "Acknowledgement and Waiver of Rights" to personnel suspected of wrongdoing. All allegations of recruiter impropriety as well as suspected improprieties are to be reported to the executive officer of the battalion in which it took place, and the battalion is required to report allegations to the USAREC Directorate of Recruiting Standards.

In the Navy, the Recruiting Command's Inspector General (IG) normally initiates and tasks preliminary inquiries as well as investigations into allegations or suspicions of recruiter impropriety. The IG office has a detachment located at the Navy's Recruit Training Center in Great Lakes, Illinois, called the Recruiting Quality Assurance Team (RQAT), and RQAT serves as a liaison between the IG office and the training center. RQAT works with the Recruit Training Center to resolve processing irregularities, and if it cannot be resolved at that level, it is referred to the IG office. Navy recruiting districts can also initiate an inquiry and investigation upon the discovery of an allegation or suspicion of misconduct, coordinating with and reporting to the IG office. Navy regulations also provide detailed guidance on the investigation. Navy procedures are similar to those of the Army, and they require investigating personnel to review and gather evidence, obtain sworn statements from personnel involved in the incident or allegation, document the investigation, and report findings.

The Marine Corps provides the least-formal guidance on procedures for investigating allegations and suspicions of recruiter impropriety. Available documentation suggests that primary responsibility for implementing these procedures rests with the local recruiting commanders, such as the recruiting district commanding officer, who reports up the chain of command if a recruiter is relieved "for cause," as the result of malpractice or misconduct. That is, the local commanding officer initiates the investigation, appoints the investigating officer, and determines whether the recruiter is relieved from recruiting duty.

Because the OUSD guidance refers to both actual and suspected irregularities, these differences across services in the procedures for investigating and reporting incidents have implications for the types of cases that ultimately are tracked as representing potential irregularities. In the Air Force, for example, tracking of an irregularity is typically triggered by the filing of an internal document called a Serious Incident Report, but these reports are not completed for less significant cases that are handled at lower levels of the chain of command. As a result, in the Air Force most cases that qualify as potential irregularities for OSD reporting purposes have undergone some level of previous investigation, meaning that these cases are more likely to ultimately be substantiated. The Army and the Navy, in contrast, have fairly expansive internal reporting requirements that allow them to capture data on allegations that ultimately fall below the threshold of a formal investigation. As a result, these services have larger numbers of cases but fairly low shares of cases that are ultimately substantiated.

Disciplinary Actions

If an allegation or suspicion of recruiter malpractice or misconduct is substantiated, the recruiter is subject to a range of disciplinary actions including administrative personnel actions as well as Uniform Code of Military Justice actions, as deemed appropriate. A recruiter may be suspended or relieved from recruiting duty. Recruiters receive Special Duty Assignment Pay, and this pay may be suspended or terminated as part of a disciplinary action.

Derivations

This appendix derives the relationship between changes in contractee[1] characteristics at the end of the recruiting month relative to earlier in the month and recruiter irregularities. In our contract data, we observe only the former, and not the latter. Thus, an important question is whether differences in contractee characteristics are a valid indicator of questionable recruiter behavior. This appendix shows the relationship between the two and, importantly, the assumptions that must be true for contractee characteristics to change when irregularities become more prevalent.

We also demonstrate in this appendix that the magnitude of differences in contractee characteristics by contract timing reflects two different factors. The first is the difference in the prevalence of contracts signed under irregular versus "normal" circumstances, and the second is the difference in contractee characteristics for those enlisting under irregular versus normal circumstances. As stated in the main text, the magnitude reflects both the prevalence of irregularities and the severity of differences in characteristics. Since we do not observe either prevalence or severity, we cannot disentangle their relative contribution. Still, as we show in this appendix, we can conduct simulations of different combinations of prevalence and severity that would lead to the observed differences in contractee characteristics.

Let π_b denote the proportion of contractees in the beginning of the recruiting month with a given characteristic. For simplicity, we will focus on the characteristic "bad conduct discharge," but the derivation is the same for all characteristics considered in the tables in Chapter Five. Let π_e be the share of end-of-the-month contractees with a bad conduct discharge, π_n denote the probability of a bad conduct discharge among normally recruited individuals, and π_i the probability for irregularly recruited individuals. Let s denote the share of all contracts who are irregularly recruited at the beginning of the month and k a proportionality factor measuring how much this share increases at the end of the month. We expect that $\pi_e > \pi_b$, $\pi_i > \pi_n$, and $k > 0$. The propensity to exhibit bad conduct among those enlisting at the beginning of the month is simply the population-weighted propensities for the normal and irregular recruits, i.e.,

$$\pi_b = \pi_n(1 - s) + \pi_i s.$$

Similarly,

$$\pi_e = \pi_n(1 - (1 + k)s) + \pi_i(1 + k)s$$

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[1] *Contractees* in this context are those who have signed contracts in order to enlist in the U.S. military.

The tables in Chapter Five show differences in the incidence of the characteristic (here, bad conduct discharges) at the beginning of the month relative to the end of the month, or $\pi_e - \pi_b$. Substituting the expressions above and rearranging, this difference is given by:

$$\pi_e - \pi_b = sk[\pi_i - \pi_n].$$

This expression shows that the difference in bad conduct discharges between contractees at the end of the month and the beginning of the month depends on two factors: the increase in the share of contractees irregularly recruited at the end of the month (equal to the share at the beginning of the month, s, times the percentage increase in the share at the end of the month, k) and the difference in the probability of being discharged among irregularly recruited versus normally recruited contractees, $\pi_i - \pi_n$. If $\pi_i > \pi_n$, an increase in k or in π_i results in an increase in $\pi_e - \pi_b$. In other words, a high share of irregularly recruited contractees at the end of the month (prevalence) or high incidence of bad conduct discharge among irregularly recruited contractees (severity) increases the observed difference in bad conduct discharges by contract timing.

We can also show the relationship between the incidence of irregular contracts and the percent change in bad conduct discharges (or any other characteristic) among contractees who are recruited irregularly versus those recruited normally. Note that:

$$\frac{\pi_b}{\pi_n} = s\left(\frac{\pi_i - \pi_n}{\pi_n}\right) + 1;$$

$$\frac{\pi_e}{\pi_n} = s(1+k)\left(\frac{\pi_i - \pi_n}{\pi_n}\right) + 1.$$

Let

$$\Delta = \left(\frac{\pi_i - \pi_n}{\pi_n}\right);$$

this is the percentage increase in bad conduct discharges among irregularly recruited individuals relative to normally recruited individuals. Dividing the above expressions yields:

$$\frac{\pi_e - \pi_b}{\pi_b} = \left(\frac{s(1+k)\Delta + 1}{s\Delta + 1}\right) - 1.$$

The left side of this expression is the percentage change in bad conduct that is observed at the end of the month, which we can estimate from the data. We denote this value p. Then, for any assumed values for Δ and k, we can recover the baseline share of irregular recruits, which measures the prevalence of irregularities, using the formula:

$$s = \frac{p}{k\Delta - \Delta p}.$$

To calculate the overall share of contracts involving irregularities ($\bar{s}$), we take the weighted average of s and $(1 + k)s$, with the weights given by the share of contracts that occur at the end versus the beginning of the month (q), i.e.,

$$\bar{s} = (1 - q)s + q(1 + k)s.$$

Our estimates in Table 5.4 indicate that for the overall sample, p equals 3.9 percent, and for that sample q equals 21.7 percent. For any assumed values of k and Δ we can derive $\bar{s}$ using the formulas above.

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