NATIONAL DEFENSE RESEARCH INSTITUTE

# SEXUAL ASSAULT AND SEXUAL HARASSMENT IN THE U.S. MILITARY

## Volume 2. Estimates for Department of Defense Service Members from the 2014 RAND Military Workplace Study

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Prepared for the DoD Sexual Assault Prevention and Response Office

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# Preface

The Department of Defense (DoD) has assessed service member experiences with sexual assault and harassment since at least 1996, when Public Law 104-201 first required a survey of the "gender relations climate" experienced by active-component forces. Since 2002, four "Workplace and Gender Relations Surveys," as they are known in 10 U.S.C. §481, have been conducted with active-component forces (in 2002, 2006, 2010, and 2012). DoD conducted reserve-component versions of this survey in 2004, 2008, and 2012.

The results of the 2012 survey suggested that more than 26,000 service members in the active component had experienced *unwanted sexual contacts* in the prior year, an estimate that received widespread public attention and concern. In press reports and congressional inquiries, questions were raised about the validity of the estimate, about what "unwanted sexual contact" included, and about whether the survey had been conducted properly. Because of these questions, some members of Congress urged DoD to seek an independent assessment of the number of service members who experienced sexual assault or sexual harassment.

The Sexual Assault Prevention and Response Office within the Office of the Secretary of Defense selected the RAND Corporation to provide a new and independent evaluation of sexual assault, sexual harassment, and gender discrimination across the military. As such, DoD asked the RAND research team to redesign the approach used in previous DoD surveys, if changes would improve the accuracy and validity of the survey results for estimating the prevalence of sexual crimes and violations. In the summer of 2014, RAND fielded a new survey as part of the RAND Military Workplace Study.

This report, Volume 2 in our series, presents survey results for active- and reserve-component service members in the Army, Navy, Air Force, and Marine Corps. The complete series that collectively describes the study methodology and its findings includes the following reports:

- *Sexual Assault and Sexual Harassment in the U.S. Military: Top-Line Estimates for Active-Duty Service Members from the 2014 RAND Military Workplace Study*

- *Sexual Assault and Sexual Harassment in the U.S. Military: Top-Line Estimates for Active-Duty Coast Guard Members from the 2014 RAND Military Workplace Study*
- *Sexual Assault and Sexual Harassment in the U.S. Military: Volume 1. Design of the 2014 RAND Military Workplace Study*
- *Sexual Assault and Sexual Harassment in the U.S. Military: Volume 2. Estimates for Department of Defense Service Members from the 2014 RAND Military Workplace Study*
- *Sexual Assault and Sexual Harassment in the U.S. Military: Annex to Volume 2. Tabular Results from the 2014 RAND Military Workplace Study for Department of Defense Service Members*
- *Sexual Assault and Sexual Harassment in the U.S. Military: Volume 3. Estimates for Coast Guard Service Members from the 2014 RAND Military Workplace Study*
- *Sexual Assault and Sexual Harassment in the U.S. Military: Annex to Volume 3. Tabular Results from the 2014 RAND Military Workplace Study for Coast Guard Service Members*
- *Sexual Assault and Sexual Harassment in the U.S. Military: Volume 4. Investigations of Potential Bias in Estimates from the 2014 RAND Military Workplace Study.*

These reports are available online at http://www.rand.org/surveys/rmws.html.

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For more information on the Forces and Resources Policy Center, see http://www.rand.org/nsrd/ndri/centers/frp.html or contact the director (contact information is provided on the web page).

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# Summary

In early 2014, the Department of Defense (DoD) Sexual Assault Prevention and Response Office (SAPRO) asked the RAND National Defense Research Institute (NDRI) to conduct an independent assessment of sexual assault, sexual harassment, and gender discrimination in the military—an assessment last conducted in 2012 by the department itself through the Workplace and Gender Relations Survey of Active Duty Members (WGRA). This report provides estimates for DoD active- and reserve-component service members from the resulting study, the RAND Military Workplace Study (RMWS), which was fielded in August and September of 2014.

The 2014 RMWS survey was designed to address many of the criticisms made of the 2012 WGRA and prior versions of that survey and to make the focus of the survey more clearly on crimes under the Uniform Code of Military Justice (UCMJ) and violations of equal opportunity laws and regulations. Relative to the 2012 WGRA, the RMWS had more respondents, a higher response rate, and an analytic sample that is representative of the population on a wider set of risk factors for sexual assault or harassment. The new RMWS survey instrument collects more-detailed information about these events, uses simpler questions, more clearly restricts the questions to events that occurred in the past year, and excludes events that do not meet the legal standards for sexual assault, sexual harassment, or gender discrimination.

With a sample of close to 560,000 service members, the RMWS provides DoD with unprecedented detail on the frequency of criminal sexual assault against its members, the nature and context of those assaults, and how they differ for men and women. The study also provides new evidence on the occurrence of sexual harassment and gender discrimination that could provide a basis for developing new approaches to the prevention of these offenses.

Compared to the prior DoD studies, the RMWS took a new approach to counting individuals in the military who experienced sexual assault, sexual harassment, or gender discrimination. Our measurement of sexual assault aligns closely with the definitions and criteria in the UCMJ for Article 120 and Article 80 crimes.[1] The survey measures of sexual harassment and gender discrimination use criteria drawn directly from DoD Directive 1350.2 on military equal opportunity (MEO) violations (Department of Defense Directive 1350.2, 2003). Compared with past surveys that were

designed to measure a climate of sexual misconduct associated with illegal behavior, our approach offers greater precision in estimating the number of *crimes* and *MEO violations* that have occurred. Specifically, the RMWS measures

- *sexual assault*, which captures three mutually exclusive categories: *penetrative*, *non-penetrative*, and *attempted penetrative* crimes
- *sexual harassment*, which consists of
  - *sexually hostile work environment*—a workplace characterized by severe or pervasive unwelcome sexual advances, comments, or physical conduct that offends service members
  - *sexual quid pro quo*—incidents in which someone uses his or her power or influence within the military to attempt to coerce sexual behavior in exchange for a workplace benefit
- *gender discrimination*—incidents in which service members are subject to mistreatment on the basis of their gender that affects their employment conditions.

As with all victim surveys, we classify service members as experiencing sexual assault, sexual harassment, or gender discrimination based on their memories of the event as expressed in their survey responses. It is likely that a full review of all evidence would reveal that some respondents whom we classify as not having experienced sexual assault, sexual harassment, or gender discrimination based on their survey responses actually did have one of these experiences. Similarly, some whom we classify as having experienced a crime or violation may have experienced an event that would not meet the minimum DoD criteria. A principal focus of our survey development was to minimize both of these types of errors, but they cannot be completely eliminated in a self-report survey.

## Sexual Assault: Active Component

Using results from the new RMWS survey, we estimate that 1.5 percent of the active-component population experienced at least one sexual assault in the past year. We estimate with 95-percent confidence that between 18,200 and 22,400 active-component service members experienced a sexual assault in the past year. Our best estimate in this range is that 20,300[2] active-component service members were sexually assaulted in the past year, out of 1,317,561 active-component service members. This represents approximately 1.0 percent of men (1 in 100) and 4.9 percent of women (5 in 100) in the active component, resulting in an estimated 10,600 servicemen and 9,600 servicewomen who experienced a sexual assault in the past year. Those who were assaulted indicated an average of more than two such incidents in the past year. Thus, over the past year, there were approximately 2.5 incidents per 100 men and 9.6 incidents per 100 women in the active component.

Almost one-half of the women who experienced a sexual assault in the past year and about one-third of the men were classified as experiencing a penetrative sexual assault. These rates are higher than previously understood using earlier survey methods, and this difference is particularly large among men.

This is the first survey of the military that included a large enough sample of men to provide details on their sexual assault experiences, and we find that characteristics of assaults against men and women differ in significant ways. Men who were sexually assaulted in the past year were more likely to have been assaulted repeatedly, and more likely to have been assaulted by two or more offenders during the worst such event. Penetrative assaults against men were more likely to involve injuries and threats of violence; men were more likely to describe the event as serving to humiliate or abuse them as opposed to having a sexual intent, and they were more likely than women to describe the assault as hazing (34 percent of men who were assaulted described the assault as hazing; 7 percent of women did so). Assaults against men were more likely to occur at work (men: 57 percent; women: 30 percent), during work hours (men: 64 percent; women: 33 percent), and were less likely to involve alcohol than assaults against women (25 percent of men and 41 percent of women had been drinking at the time of the assault).

Our results showed significant differences in sexual assault experiences by branch of service. Members of the Air Force (both men and women) are estimated to be at lower risk for experiencing sexual assault than members of the other branches. In contrast, a significantly higher proportion of women in the Marine Corps and Navy are estimated to have experienced a sexual assault in the past year than women in the other services. We find that differences in the rates of sexual assault across the Army, Navy, and Marine Corps can be explained by differences in the demographic and other characteristics of their members. However, even after accounting for gender, age, education, aptitude test scores, marital status, number of children, pay grade, deployment history, and other factors, men and women in the Air Force are still at lower risk of sexual assault than those in the other services.

For both men and women, junior enlisted members (E1–E4) have the highest rates of sexual assault, with 1.4 percent of junior enlisted men and 7.3 percent of junior enlisted women estimated to have experienced a sexual assault in the past year. Among male officers, there is not a statistically significant difference between junior grade (O1–O3) and senior grade officers (O4–O6); however, O1–O3 women have more than twice the rate of sexual assault as O4–O6 women.

The large majority of those whom we classify as having experienced a sexual assault in the past year indicated that the offender(s) included "someone in the military" (85 percent). Of those who said the offender(s) were a member of the military, just over one-half of men and women indicated that the highest-ranking offender(s) included someone higher in rank than the respondent. The majority of these respondents (65 percent) also indicated that the assault occurred on a military installation

or ship, and about one-half indicated it occurred during the work day or duty hours. In total, we estimate that 90 percent of all past-year sexual assaults against active-component service members either were committed by other members of the military or occurred in a military setting.

About one-half of respondents indicated that they told someone about the assault—62 percent of women and 40 percent of men. Fourteen percent of respondents indicated they had filed an official report about the sexual assault, with a higher proportion of women reporting than men (21 percent of women, 7 percent of men). Respondents in the Navy were less likely to tell anyone about the assault or file an official report than those in the other services. Among those who filed a report, 52 percent of women perceived they experienced social or professional retaliation and 54 percent perceived retaliation or negative career consequences to have resulted from the assault (too few men reported assaults to produce a comparable estimate). Thirty-five percent indicated that the event made them want to leave the military, with no differences across gender but a higher rate in the Army than the Air Force.

The survey also investigated experiences of sexual assaults that occurred more than a year ago and whether they occurred prior to or after joining the military. We estimate that 4.9 percent of service members have experienced a sexual assault in their lifetime—2.6 percent of men and 17.9 percent of women. We estimate that 2.0 percent experienced sexual assaults that happened before they joined the military—0.9 percent of men and 8.2 percent of women. Women experienced sexual assaults since joining the military at much higher rates than men (15 versus 2 percent).

## Sexual Harassment and Gender Discrimination: Active Component

In the past year, we estimate that 26 percent of active-component women experienced sexual harassment or gender discrimination. The majority of these violations involve experiences consistent with a sexually hostile work environment; however, significant numbers of women also indicate experiences consistent with gender discrimination. Our estimate of the prevalence of sexual harassment or gender discrimination against men in the active component is lower than for women—7 percent of men experienced one of these violations—but these problems are cited sufficiently often to warrant attention. For men, the largest source of problems stem from sexually hostile work environments.

Considering particular types of sexual harassment violations, we estimate that one-fifth of women and 7 percent of men experienced a *sexually hostile work environment* in the past year. Active-component members of the Air Force report significantly lower experiences than the other branches of service. But even in the Air Force, nearly 1 out of every 8 women experienced such events in the past year. Unlike sexually hostile work environments, *sexual quid pro quo* violations are comparatively rare. We esti-

mate that approximately 1 in 60 women and 1 in 300 men were harassed in this way in the past year. As with the other form of sexual harassment, members of the Air Force were at substantially lower risk for these events relative to the members of the other services. These two measures, sexually hostile work environment and sexual *quid pro quo*, together constitute the legal constructs describing *sexual harassment*.

We examined whether the statistically significant differences in rates of sexual harassment across services could be explained by demographic and other characteristics of each branch of service. As we found with sexual assault, demographic characteristics do account for the differences in rates of sexual harassment among the Army, Navy, and Marine Corps for both men and women, but they do not fully explain the comparatively lower rates found for men and women in the Air Force. If we also account for service-branch differences in, for instance, the percentages of men found in units, occupational groups, and facilities—in addition to demographic factors—the differences between the Air Force and Marine Corps for sexual harassment of men is no longer statistically significant. Men and women in the Army and Navy and women in the Marine Corps continue to have significantly higher rates of sexual harassment than those in the Air Force even after accounting for the above factors.

We also find evidence of *gender discrimination* during the past year. We estimate that gender discrimination affected approximately 1 in 8 military servicewomen and 1 in 60 servicemen. Women in the Air Force are estimated to be less than half as likely as those in other services to experience gender discrimination in the past year. Among men, our estimates suggest that both airmen and Marines experienced less gender discrimination relative to soldiers and sailors.

Our estimates of sexual harassment by pay grade show a similar relationship as with sexual assault, with a higher proportion of junior members experiencing sexual harassment than senior members for both men and women. Although sexual harassment is less common in higher ranks, nearly 1 in 10 senior officers and nearly 1 in 5 senior enlisted servicewomen experienced sexual harassment in the past year. Rates of gender discrimination were similar across pay grades for both women (12 percent overall) and men (2 percent overall).

Majorities of men and women who experienced sexual harassment or gender discrimination in the past year indicated their supervisor or unit leader was one of the people engaged in the violation(s) (60 percent of men, and 58 percent of women). Sixty-seven percent of men and 54 percent of women who experienced sexual harassment or gender discrimination in the past year *did not* tell a supervisor, unit leader, or MEO official about the problem. Of those who did, most indicate that action was taken to address the problem, such as by explaining rules of sexual harassment to everyone in the workplace or asking the person responsible for the offensive behavior to change their behavior. But many who reported the problem to superiors were advised to drop the issue or the person they reported to appeared to take no action. As such, 41 percent of those who spoke with their supervisor or someone in their chain of

command reported feeling dissatisfied with the actions taken to address the offensive workplace behavior. Significant barriers to disclosing sexual harassment and gender discrimination violations with a supervisor or someone else responsible for enforcing MEO include minimizing the importance of the unwanted and upsetting behaviors, worries about retaliation, and concern about being stigmatized for raising objections to the unwanted behaviors.

Sexual harassment and gender discrimination are typically not isolated experiences. More than one-half of all men and women in the active component who experienced such violations said it was ongoing for a few months to a year or more. The high prevalence of these violations is widely recognized by service members, as most women (76 percent) and nearly one-half of all men (45 percent) indicated that sexual harassment was "common" or "very common" in the military. Similarly, 69 percent of women and 34 percent of men indicated that discrimination against women was "common" or "very common" in the military.

Service members who experienced sexual harassment or gender discrimination in the past year frequently indicated that it undermined productivity and unit cohesion in the workplace. Moreover, those who experienced sexual harassment or gender discrimination in the past year had different intentions about staying in the military than those who had not. For example, among women who had not been targeted, 11 percent indicated that it was "very unlikely" that they would choose to stay on active duty. Among women who had experienced sexual harassment or gender discrimination in the past year, 23 percent and 27 percent, respectively, indicated that they were "very unlikely" to stay. These results suggest that these violations of workplace professionalism may have a negative effect on the retention of service members.

Sexual harassment is also closely associated with sexual assault in the military. Indeed, women who have been sexually harassed in the past year are 14 times more likely to also have been sexually assaulted in the past year than are women who were not sexually harassed. Men who were sexually harassed were 49 times more likely to also have been sexually assaulted in the past year than men who were not sexually harassed. Some of this high correlation is driven by the fact that sexual assaults committed by a coworker or at a military facility may also have counted as sexual harassment. Nevertheless, we also find a strong correlation between gender discrimination and sexual assault, even though assaults would not be classified as gender discrimination. Moreover, we find that approximately one-third of service members who were sexually assaulted say that the offender previously sexually harassed them. These strong associations between sexual harassment and sexual assault, and between gender discrimination and sexual assault, merit further investigation to establish whether environments characterized by high rates of these MEO violations present a risk factor for sexual assault.

## Reserve-Component Experiences

The RMWS study included a sample of about 60,000 members of the reserve component (including the National Guard)—about 27,000 women and 33,000 men. The sample was designed to establish whether rates of sexual assault and sexual harassment experienced in the past year by members of the reserve component differ from the rates estimated for the active component.

Our estimates indicate that men and women in the reserve component experienced sexual assaults in the past year at significantly lower rates than their peers in the active component—0.38 percent of men and 3.13 percent of women. The percentage of women who experienced a sexual assault in the past year is approximately 50 percent higher in the active component relative to the reserve component, while rates for men in the active component are more than twice those for men in the reserve component. These differences in risk for sexual assault between the active and reserve components are not explained by a range of demographic and military characteristics we investigated, including gender, age, pay grade, and combat deployments.

As with sexual assault in the active-component sample, a majority of the assailants of reserve-component members were members of the military (81 percent) and a majority of the assaults occurred on a military installation, ship, armory, or reserve unit site (63 percent). In all, 86 percent of reservists' worst sexual assault in the past year were perpetrated by military personnel or occurred in a military setting. When looking at part-time reserve-component members (i.e., those who performed military duties on 180 days or fewer over the prior year), 85 percent of their sexual assaults were perpetrated by military personnel or occurred in a military setting. On average, these part-time reserve-component members indicated that they spent approximately 11 percent of the year in compensated military duties. In that context, our finding that 85 percent of those who were sexually assaulted identified the worst event as involving military personnel or settings is noteworthy. However, the portion of the year spent in military settings or with military personnel may be higher than 11 percent, because reservists may socialize or work with other members of the military while not on duty, and they may perform uncompensated activities in military settings.

Reserve-component members were also asked about sexual harassment and gender discrimination, although we asked only about experiences that occurred in their military workplace, not those associated with their civilian workplace. In the reserve component, 6.7 percent of men experienced a sexual harassment or gender discrimination violation in the past year, slightly less than rates reported by the active-component sample (7.4 percent). In contrast, women in the reserve component appear to experience considerably lower rates of sexual harassment or gender discrimination (18 percent) than women in the active component (nearly 26 percent).

## Results Using the Prior WGRA Measures and Methods

Recognizing that DoD leaders are interested in assessing progress in reducing sexual assault, sexual harassment, and gender discrimination, RAND fielded a portion of the 2014 surveys using the same questions as previous DoD surveys on this topic. We estimate that the percentage of women in the active component who experienced unwanted sexual contact as measured by the WGRA methods declined from 6.1 percent in 2012 to 4.3 percent in 2014; the decline among men was not a statistically significant change (1.2 percent in 2012 compared with 0.9 percent in 2014). Similarly, estimates for the percentage of women who experienced sexual harassment in the past year declined significantly from 23.2 percent in 2012 to 20.2 percent in 2014; for men, the percentage in 2014 (3.5 percent) was not significantly lower than in 2012 (4.1 percent).

These trend data suggest that fewer servicewomen in the active component are experiencing unwanted sexual contacts and sexual harassment than was the case two years ago. However, significant improvements over 2010 levels have not occurred. Women's perceptions of retaliation after filing an official report to a military authority are unchanged in 2014. In both 2012 and 2014, 62 percent of women who filed such a report indicated that they perceived professional retaliation, social retaliation, adverse administrative actions, or punishments for violations associated with the sexual assault. Comparable estimates for men could not be generated due to low numbers of men who made an official report of sexual assault.

## Recommendations

Based on the results of our survey analyses, we offer the following recommendations.

1. *Improve policies and programs to increase reporting of the full range of sexual assaults defined by the UCMJ, including those that are not perceived as sexual acts (e.g., those that occur under the guise of hazing or bullying).* The low rates at which men officially report being sexually assaulted may relate to differences in the types of attacks they experience. Many of the violent, abusive attacks by multiple assailants, sometimes described by the target as "hazing," may not be viewed as serving a sexual motive. Neither the victims nor commanders who have been alerted to these incidents may think to call a sexual assault response coordinator and begin the sexual assault reporting process. Nevertheless, some such hazing, bullying, and other misconduct clearly constitute sexual assaults as defined in Article 120 of the UCMJ.

Even when it does occur to the victim that the event qualifies as a sexual assault, he or she may find the sexual assault reporting process uncomfortable. For example, some sexually assaulted men indicated that one of their reasons for not reporting was a fear that they would be perceived to be gay or bisexual. This suggests that men (as well as some women) might benefit from additional training to improve recognition of events that constitute sexual assault.

Relatedly, victims of some assaults may not recognize the sexual assault response coordinators (SARCs) as the appropriate authority to whom the incident should be reported, particularly when they do not view the assault as sexual or are uncomfortable with that interpretation. DoD should investigate whether men who have been assaulted perceive SARCs to present an appropriate reporting channel, and whether alternative reporting channels available to men reliably identify these incidents as Article 120 violations, even when they occur in the context of hazing, bullying, or other misconduct.

2. *Expand sexual harassment and gender discrimination monitoring, prevention, and accountability practices and equip commanders with data and guidance to take effective actions.* Sexual harassment and gender discrimination are forms of unlawful discrimination that deprive service members of equal opportunities within the military. To the extent that the broader public hears from women and men who believe they were treated unfairly in the military, it may affect the services' ability to recruit the most qualified personnel. Finally, sexual harassment may be a risk factor contributing to the prevalence of sexual assault. Because it is so much more common than sexual assault, it may be easier to monitor sexual harassment on a routine basis than it is to monitor sexual assault. Far fewer respondents are required to generate reliable estimates of sexual harassment, meaning assessments could be conducted more frequently or for smaller organizational units (like military units, occupational groups, installations or ships). As such, we recommend using surveys to estimate the prevalence of sexual harassment and gender discrimination as command climate assessments, and increasing efforts to target sexual harassment in the workplace.

Currently, DoD conducts climate surveys that ask service members' opinions about the prevalence of sexual harassment (such as the Defense Equal Opportunity Management Institute's Organizational Climate Survey, the DEOCS). Behavioral measures assessing the prevalence of such offenses could be combined with the DEOCS data to supplement and validate those attitudinal climate measures.

Relatedly, when large-scale scientific surveys of sexual assault and harassment are conducted, it may be possible to develop methods for generating installation-level estimates that could be communicated to commanders of larger installations. Base commanders currently have no way of knowing if the rates of criminal sexual assault or harassment violations at their installation are higher or lower than those at other bases. Without measurement of these outcomes within their commands, it may be difficult for commanders to make the changes needed to prevent these crimes and violations. While producing installation-level estimates presents several challenges (e.g., having adequate statistical precision, maintaining confidentiality of respondents, and interpreting the results), communicating results directly to the leaders who are in a position to change the command climate may improve the effectiveness of the DoD response to these problems.

3. *Target prevention and enforcement efforts to reduce bullying, hazing, and other demeaning behaviors.* Many sexual assaults, particularly those targeting men, occur

repeatedly over time, involve multiple assailants, and occur in the context of hazing or for the purpose of abusing or humiliating the service member. It may be possible to reduce the number of sexual assaults by preventing this broader class of physical assaults on service members. Identifying individuals who are being targeted, and those at greatest risk for being targeted, and intervening may help prevent some assaults while restoring good order and discipline within the member's unit. We believe it would be wise to assess service members' sexual orientation in future studies, as in some other contexts lesbian, gay, bisexual, and transgender individuals are at unusually high risk for harassment, bullying, and sexual assault (Rothman, Exner, and Baughman, 2011; Kosciw et al., 2012).

4. *Identify factors contributing to risk and prevention of sexual assault and sexual harassment.* The RMWS study has provided a wealth of new information on the prevalence and correlates of sexual assault, sexual harassment, and gender discrimination in the military, but with these new details come new questions that will require additional research. Top priorities for future investigations include:

- *Develop a comprehensive risk model for both sexual assault and harassment to better identify subpopulations at risk, and to target intervention and prevention efforts*. The new RMWS measures appear to capture different events than the prior measures, and they identify a substantially greater number of serious assaults among men. These new measures and the large sample surveyed with them could be used to develop predictive models of important outcomes that have not been well studied in the past, including models predicting sexual assault, sexual harassment, and sexual assault reporting. Such models would provide insight into the characteristics of the service members who experience these events (age, pay grade, occupation, etc.), as well as identify the circumstances in which they occur. Those insights may drive policies that could improve training, prevention, enforcement, and response programs.
- *Explain the substantial differences in risk across services, including identifying the policies, programs, attitudes, work environment, and personnel characteristics that might explain these disparities*. Better understanding of the differences in sexual assault risk in the Air Force relative to other services could help to isolate the factors that contribute to the apparently elevated risk in those services. The current study was able to rule out a range of plausible demographic and other characteristics that do not account for these service differences. A deeper investigation would examine a more comprehensive set of measures, including, for instance, measures of command climate, and service member experiences that might account for and lead to strategies for reducing risk in those services where it now appears to be disproportionately high.

5. *Evaluate the sexual assault and sexual harassment training received by service members.* The RMWS did not attempt to assess the accuracy and completeness of service members' knowledge of sexual assault and harassment. The study team determined that including such a knowledge exam would conflict with the primary goals of this study. However, we believe ongoing monitoring of service member knowledge of sexual assault and sexual harassment may be key to improvements in training. In particular, it would be helpful to have representative time-series data that can be used to assess whether service members accurately understand the legal definitions of sexual assault and sexual harassment, whether they know their obligations for investigating and reporting such events based on their position in the chain of command, and whether they understand the reporting process.

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## Abbreviations

| | |
|---|---|
| AAPOR | American Association for Public Opinion Research |
| AFMS | active federal military service |
| AFQT | Armed Forces Qualifying Test |
| CI | confidence interval |
| DEERS | Defense Enrollment Eligibility Reporting System |
| DMDC | Defense Manpower Data Center |
| DoD | Department of Defense |
| FTNGD | full-time National Guard duty |
| LGBT | lesbian, gay, bisexual, transgender |
| MEO | military equal opportunity |
| NCOA | National Change of Address |
| NDRI | RAND National Defense Research Institute |
| NR | not reportable |
| RMWS | RAND Military Workplace Study |
| RR1 | American Association for Public Opinion Research response rate 1 |
| SAPR | sexual assault prevention and response |
| SAPRO | Sexual Assault Prevention and Response Office |
| SARC | sexual assault response coordinator |
| SD | standard deviation |
| TAD | temporary additional duty |
| TDY | temporary duty |
| UCMJ | Uniform Code of Military Justice |
| VA | SAPR victim advocate |
| WGRA | Workplace and Gender Relations Survey of Active Duty Members |
| WGRR | Workplace and Gender Relations Survey of Reserve Component Members |

CHAPTER ONE

# Introduction

*Andrew R. Morral, Kristie L. Gore, and Terry L. Schell*

In early 2014, the Department of Defense (DoD) asked the RAND National Defense Research Institute (NDRI) to conduct an independent assessment of sexual assault, sexual harassment, and gender discrimination in the military—an assessment last conducted in 2012 by the department itself through the Workplace and Gender Relations Survey of Active Duty Members (WGRA). The 2014 RAND Military Workplace Study (RMWS) is based on a much larger sample of the military community than in previous surveys—men and women, active and reserve components, and including the four DoD military services plus the Coast Guard—and is designed to more-precisely estimate the total number of service members experiencing sexual assault, sexual harassment, and gender discrimination.

The objectives of the 2014 survey were to

- establish precise and objective estimates of the percentage of service members who experience sexual assault, sexual harassment, and gender discrimination
- describe the characteristics of these incidents, such as where and when they occurred, who harassed or assaulted the member, whether the event was reported, and what services the member sought
- identify barriers to reporting these incidents and to the receipt of support and legal services.

On December 5, 2014, RAND released preliminary results from this survey (NDRI, 2014). These *top-line* numbers referred to the broadest categories of outcomes and included only estimated numbers and percentages of active-component service members who experienced sexual assault, sexual harassment, and gender discrimination in the past year by gender, service, and type of offense. This report expands on the findings presented in the top-line report to include information on

- the samples, response rates, and survey weights
- top-line and detailed results for National Guard and reserve component members
- the context and perpetrators of sexual assault and harassment

- the reporting of sexual assault and harassment, including why members chose to report or not to report such experiences, and members' experiences with services made available to them by the military
- factors that may explain the service differences observed in rates of sexual assault and harassment
- recommendations for better understanding and prevention of sexual assault, sexual harassment, and gender discrimination in the military and elsewhere.

In this second volume of the series on *Sexual Assault and Sexual Harassment in the U.S. Military*, we present these findings and analyses for the active- and reserve-component service members in the Army, Navy, Air Force, and Marine Corps. Volume 3 will provide detailed results for the U.S. Coast Guard and Coast Guard Reserve. Volume 4 will provide analyses designed to evaluate the likely effects of survey nonresponse or other types of biases on our population estimates. Annexes to Volumes 2 and 3 contain detailed tabular results for the DoD active component and for the Coast Guard active component, respectively.

Chapter Two begins with an overview of the study design and analysis approach. We then present key findings from our analyses of sexual assault in the military (Chapter Three) and sexual harassment and gender discrimination in the military (Chapter Four). Chapter Five describes service members' beliefs and attitudes about sexual assault and sexual harassment. Chapter Six investigates possible explanations for the observed differences among the service branches on rates of sexual assault and sexual harassment. Chapter Seven presents the findings from a version of the 2014 survey that used the same measures and methods as the prior WGRA, to allow for evaluation of trend data. Chapter Eight presents sexual assault and harassment findings from the reserve component, including comparisons between the active and reserve components. The final chapter draws broader conclusions across the individual chapters and presents recommendations for consideration. In addition, the appendix contains more details of the study design, describing the characteristics of the sampled service members and their representativeness of the overall military population. An annex to this volume contains detailed data on service members' experiences of sexual assault and military equal opportunity (MEO) violations and on service member attitudes and opinions.

CHAPTER TWO

# Study Design and Analysis Approach

*Terry L. Schell and Bonnie Ghosh-Dastidar*

Volume 1 of this series, *Sexual Assault and Sexual Harassment in the U.S. Military: Design of the 2014 RAND Military Workplace Study*, was released in December 2014, along with the top-line results. Volume 1 details the context and many of the methods we used for the RMWS, including discussions of the challenges associated with measuring sexual assault and sexual harassment, the strategies we used to improve the precision with which we estimated these phenomena, the development of the survey questionnaire, the survey sampling design, and the weighting methods. Volume 1 also contains the survey questionnaires. In this chapter, we provide an overview of our survey design and sample, survey response rates, and the statistical analysis and reporting conventions used in this report (Volume 2). The appendix contains additional details on the sample and the response rates. For a more-detailed discussion of survey methodology, we refer readers to Volume 1. For additional information about potential sources of bias in the estimates, we refer the reader to Volume 4, which includes results from studies of survey nonresponders.

## Study Design and Sample

DoD, in consultation with the White House National Security Staff, stipulated that the sample size for the RMWS was to include a census of all women and 25 percent of men in the active components of the Army, Navy, Air Force, and Marine Corps. In addition, we were asked to include a smaller sample of National Guard and other reserve-component members sufficient to support comparisons of sexual assault, sexual harassment, and gender discrimination between the active and reserve components. Subsequently, the U.S. Coast Guard also asked that RAND include a sample of its active- and reserve-component members. In total, therefore, RAND invited close to 560,000 service members to participate in the study, making it the largest study of sexual assault and harassment ever conducted in the military.

The RMWS provided DoD with unprecedented detail on the frequency of criminal sexual assault against its members, the nature and context of those assaults, and how they differ for men and women. The study also provides new evidence on the

occurrence of sexual harassment and gender discrimination that could provide a basis for developing new approaches to the prevention of these offenses.

The large sample for this study is particularly valuable for understanding the experiences of relatively small subgroups in the population. For example, RAND's survey provides more information about the experiences of men who have been sexually assaulted than prior studies. The large sample also gave RAND the opportunity to test how changing the questionnaire itself might have affected survey results. Specifically, we were able to use a segment of our overall sample to draw direct comparisons between rates of sexual assault and sexual harassment as measured using the 2014 RMWS questionnaire and the measures used in the 2012 WGRA questionnaire.

To enable this comparison and others, we randomly assigned respondents to one of four different survey questionnaires:

1. A "long form," consisting of a sexual assault module; a sex-based MEO violation module, which assessed sexual harassment and gender discrimination; and questions on respondent demographics, psychological state, command climate, attitudes and beliefs about sexual assault in the military and the nation, and other related issues.
2. A "medium form," consisting of the sexual assault module, the sex-based MEO violation module, and demographic questions.
3. A "short form," consisting of the sexual assault module, the screening items from the sex-based MEO violation module, and demographic questions. Thus, these respondents did not complete the full, sex-based MEO violation assessment.
4. The "prior WGRA form," consisting of the unwanted sexual contact, sexual harassment, and gender discrimination assessments from the 2012 WGRA.

Multiple versions of the RAND form (long, medium, and short forms) were used to minimize respondent burden and costs to the services. It was not necessary to collect general experiences and attitudes from the entire sample to derive precise results, and to do so would have been wasteful of service members' time. Therefore, we designed the survey so that each question was posed to only as many service members as was necessary to provide the needed precision required for the question. In general, those items that concern relatively rare events (such as past-year sexual assault) must be asked of the largest number of people to arrive at precise estimates, whereas questions concerning attitudes or beliefs, for instance, which everyone can answer, need only be asked of a comparatively small sample.

### Active-Component Sample and Response Rates

A total of 477,513 members of the DoD active component were randomly selected from a population of 1,317,561 active-component DoD service members and who met

the study inclusion criteria requiring that they be age 18 or older, below the rank of a general or flag officer, and in service for at least six months. This follows the procedures used in prior WGRA surveys. The sample included 197,491 women and 280,022 men (Table 2.1).

Of the 477,513 DoD active-component members invited to take the RMWS survey, 145,300 individuals responded, just over 30 percent. The respondents included 34 percent of the women sampled (67,187) and 27.9 percent of the men (78,113). Service members in the Air Force had the highest response rate (43.5 percent), followed by Army (29.4 percent), Navy (23.3 percent), and Marine Corps (20.6 percent).

### Reserve-Component Sample and Response Rates

The reserve-component eligible population included all members of the Selected Reserves in the Army, Navy, Air Force, and Marine Corps, including the National Guard—a population of 794,051. The same exclusion criteria applied to the reserve sample as applied to the active sample, described previously. From this population, we sampled about 60,000 guard and reserve members from the four DoD services (Table 2.2). The sample includes 27,004 women and 33,003 men.

The response rate for the reserve-component sample was 22.6 percent, which is lower than the 30.4 percent response rate among the active-component service mem-

**Table 2.1**
**DoD Active-Component Sample**

| | Total | | Women | | Men | |
|---|---|---|---|---|---|---|
| | Population | Sample | Population | Sample | Population | Sample |
| Total | 1,317,561 | 477,513 | 197,491 | 197,491 | 1,120,070 | 280,022 |
| Service | | | | | | |
| Army | 38.1% | 37.2% | 35.2% | 35.2% | 38.7% | 38.7% |
| Navy | 23.8% | 25.1% | 27.8% | 27.8% | 23.0% | 23.0% |
| Air Force | 23.9% | 25.7% | 30.0% | 30.0% | 22.8% | 22.8% |
| Marine Corps | 14.1% | 11.9% | 7.0% | 7.0% | 15.4% | 15.4% |
| Pay Grade | | | | | | |
| E1–E4 | 42.7% | 43.0% | 44.2% | 44.2% | 42.6% | 42.6% |
| E5–E9 | 41.0% | 39.9% | 37.2% | 37.2% | 41.8% | 41.8% |
| O1–O3 | 9.7% | 10.6% | 12.6% | 12.6% | 9.1% | 9.1% |
| O4–O6 | 6.6% | 6.5% | 6.0% | 6.0% | 6.5% | 6.5% |

NOTE: Sample contains both respondents and nonrespondents. *Population* refers to the study eligible population.

**Table 2.2**
**DoD Reserve-Component Sample**

| | Total | | Women | | Men | |
|---|---|---|---|---|---|---|
| Service | Population | Sample | Population | Sample | Population | Sample |
| Total | 794,051 | 60,007 | 147,412 | 27,004 | 646,639 | 33,003 |
| Army | 66.4% | 65.9% | 64.9% | 64.9% | 66.7% | 66.7% |
| Navy | 7.5% | 7.9% | 8.8% | 8.7% | 7.2% | 7.2% |
| Air Force | 21.3% | 22.5% | 25.2% | 25.2% | 20.4% | 20.4% |
| Marine Corps | 4.8% | 3.7% | 1.1% | 1.2% | 5.8% | 5.7% |

NOTE: Sample contains both respondents and nonrespondents. *Population* refers to the study eligible population.

bers. The response rate for women in the reserve component (23.4 percent) was slightly higher than that for men (21.9 percent). Service members in the Air National Guard and Air Force Reserves had the highest response rate (34.7 percent and 30.2 percent), followed by Navy Reserves (25.1 percent), Army Reserves (20.5 percent), Army National Guard (18.7 percent), and Marine Corps (11.3 percent).

In this report, we do not provide detailed demographic characteristics of the population of active-component service members. Details on this population are available elsewhere (U.S. Department of Defense, 2013).

## Statistical Analysis and Reporting Conventions Used in This Report

The statistical analyses presented in this report and its annex employ statistical procedures designed to reduce the likelihood of drawing inappropriate conclusions or compromising the privacy of respondents.

First, we assured respondents in the survey Privacy Statement (part of the informed consent) that our reports would not include analyses conducted within subsets smaller than 15 respondents. Thus, to maintain participant privacy the report and its annex do not include sample statistics (including confidence intervals) computed within groups smaller than 15 unweighted respondents. If such a cell appears in a table, the point estimates and its confidence intervals are replaced with NR, or "not reportable."

Second, the report contains estimated population percentages that vary dramatically in their statistical precision. Some estimates have a 95-percent confidence interval of 0.3 percentage point while others have a width of 30 percentage points. This occurs because some percentages are estimated using more than 100,000 respondents, while others are estimated on small subsamples (e.g., male airmen who experienced a sexual assault). To reduce the likelihood of misinterpretations, percentages with very low precision are not reported. Specifically, percentages estimated with a margin of error greater

than 15 percentage points are replaced with NR (where the *margin of error* is defined as the larger half-width of the confidence interval). In such cases, the confidence intervals are still presented to communicate the range of percentages that is consistent with the data. Such imprecise estimates are better thought about as ranges rather than points.

The text and tables in this report do not use a constant level of numerical precision. Because the statistical precision of the estimates vary by over two orders of magnitude, and because the purpose of numbers presented in the text and in tables may be slightly different, we have tried to select a level of numerical precision that is appropriate for each situation. In contrast to the variation in numerical precision within the body of the report, the annex presents percentages to two decimal places. The reader is cautioned to interpret these estimates with respect to their confidence intervals rather than their apparent numerical precision. In general, the report includes confidence intervals (either in the body of the report or in the annex) for all of the statistics that are interpreted as population estimates.

To streamline presentation, the report focuses primarily on large effects or large differences between groups. With large differences, formal tests of statistical significance are not included in the text, because significance can be inferred from nonoverlapping confidence intervals. In some cases, we include *p*-values in the text or use indicators of statistical significance in tables. This is done when we explicitly tested a hypothesis that cannot be investigated directly with the confidence intervals presented (e.g., comparing one service to the average of the other three), or when the confidence intervals overlap but the differences are still statistically significant. Whenever a difference between estimates is described in the text it is statistically significant, unless explicitly noted otherwise. In general, claims about statistical significance in the text refer to a standard $\alpha = 0.05$, two-tailed test. In some analyses involving variables with more than two levels, Bonferroni corrections for multiple testing have been used. When used, the Bonferroni correction is noted in the text or table.

All estimates presented in the report and annex (unless specifically labeled otherwise) use survey weights that account for the sample design and survey nonresponse. As discussed in Volume 1, estimates derived from measures used in prior WGRA surveys are analyzed using weights that were derived similarly to those used in prior WGRA studies. All other analyses used the RAND-designed survey weights outlined in Volume 1. Volume 4 provides additional information about, and analyses of, these weights.

Confidence intervals for proportions are computed as exact binomials (Clopper-Pearson). Confidence intervals for counts or continuous values are computed using the standard normal approximation. Variance estimation is typically done with the Taylor series linearization method; however, that method cannot be used to estimate the variance of a percentage with a zero numerator. In those cases, confidence intervals were computed using the Hanley and Lippman-Hand (1983) method with the sample size defined using the Kish (1965) estimate for effective sample size.

CHAPTER THREE

# Sexual Assault Findings: Active Component

*Lisa H. Jaycox, Terry L. Schell, Andrew R. Morral, Amy Street, Coreen Farris, Dean Kilpatrick, and Terri Tanielian*

The RMWS survey contains a detailed assessment of sexual assault designed to correspond to the legal criteria specified in Article 120 of the Uniform Code of Military Justice (UCMJ). To be classified as having experienced a sexual assault, respondents must first have indicated that they experienced one of six anatomically specific unwanted behavioral events. If they indicated that one of these events occurred in the past year, they were then asked a series of additional questions designed to assess (a) if the event was intended for either a sexual purpose, to abuse, or to humiliate, as indicated in the UCMJ, and (b) if the offender used one of the coercion methods specified in the UCMJ as defining a criminal sex act. The complete survey instrument and a detailed discussion of the rationale behind this approach to assessing sexual assault may be found in Volume 1 of this series.

This chapter describes findings and conclusions that are subject to the limitations of self-report survey research. A full investigation of the experiences described by respondents could find that incidents we do not classify as sexual assault may indeed qualify as criminal sexual assaults, whereas some of those we classify as sexual assault may prove not to be criminal sexual assaults.

## Sexual Assault Prevalence

We estimate that 1.5 percent of the active-component population experienced at least one sexual assault in the past year (Table 3.1). We estimate with 95-percent confidence that the total number of active-component service members in our sample frame who experienced a sexual assault in the past year is between 18,200 and 22,400.[1] Our best estimate in this range is that 20,300 active-component service members were sexually assaulted in the past year, out of 1,317,561 active-component members. The estimated rate of sexual assault varied significantly by gender: fewer than 1 in 100 men but approximately 1 in 20 women, resulting in an estimated 10,600 servicemen and 9,600 servicewomen who experienced a sexual assault in the past year.[2]

**Table 3.1**
**Estimated Percentage of Active-Component Service Members Who Experienced Any Type of Sexual Assault in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 1.54% (1.38–1.70) | 0.95% (0.78–1.15) | 4.87% (4.61–5.14) |
| Army | 1.46% (1.25–1.70) | 0.95% (0.72–1.23) | 4.69% (4.30–5.09) |
| Navy | 2.36%[a] (1.92–2.86) | 1.48% (1.00–2.12) | 6.48%[a] (5.79–7.22) |
| Air Force | 0.78%[a] (0.70–0.87) | 0.29%[a] (0.21–0.39) | 2.90%[a] (2.67–3.15) |
| Marine Corps | 1.63% (1.15–2.24) | 1.13% (0.65–1.84) | 7.86%[a] (6.65–9.21) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

There were smaller, yet significant, differences by branch of service. Both men and women in the Air Force were estimated to be at lower risk for experiencing a sexual assault than members of the other branches. In contrast, a significantly higher proportion of women in the Marine Corps and Navy are estimated to have experienced sexual assault in the past year, as compared with women in other services.

Table 3.2 describes estimated rates of past-year sexual assault by pay grade. For both men and women, junior enlisted members (E1–E4) have the highest rates, with 1.4 percent of men and 7.3 percent of women estimated to have experienced a sexual assault in the past year. These were significantly higher than rates observed for any other pay grade. Among officers, junior and senior men have comparable rates of past-year sexual assault, but junior grade women have more than twice the rates of past-year sexual assaults as do senior grade women.

To gain a better understanding of the nature of these events, we broke down the overall results into the type of sexual assault that the respondent was classified as experiencing (Table 3.3). Although all respondents answer all six sexual assault screener items, the instrument is structured so that if a respondent is classified as having experienced a penetrative sexual assault, they skip the detailed, subsequent questions about non-penetrative offenses. Similarly, if they qualify as having experienced a non-penetrative sexual assault, they skip the final, follow-up questions assessing if they experienced an attempted penetrative sexual assault. Thus, the instrument defines three mutually exclusive categories of sexual assault: *penetrative*, *non-penetrative*, and *attempted penetrative*.[3]

**Table 3.2**
**Estimated Percentage of Active-Component Service Members Who Experienced Sexual Assaults in the Past Year, by Gender and Pay Grade**

| Pay Grade | Total | Men | Women |
|---|---|---|---|
| Total | 1.54% (1.38–1.70) | 0.95% (0.78–1.15) | 4.87% (4.61–5.14) |
| E1–E4 | 2.34%[a] (2.01–2.71) | 1.43%[a] (1.06–1.88) | 7.29%[a] (6.76–7.86) |
| E5–E9 | 1.00%[a] (0.88–1.13) | 0.68%[a] (0.55–0.84) | 3.01%[a] (2.77–3.27) |
| O1–O3 | 0.99%[a] (0.85–1.15) | 0.37%[a] (0.24–0.54) | 3.58%[a] (3.16–4.04) |
| O4–O6 | 0.47%[a] (0.32–0.67) | 0.34%[a] (0.18–0.59) | 1.27%[a] (0.96–1.65) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other pay grades within a column; $p < 0.05$, Bonferroni corrected.

**Table 3.3**
**Estimated Percentage of Active-Component Service Members Who Experienced a Sexual Assault in the Past Year, by Gender and Type**

| Sexual Assault | Total | Men | Women |
|---|---|---|---|
| Any sexual assault | 1.54% (1.38–1.70) | 0.95% (0.78–1.15) | 4.87% (4.61–5.14) |
| Penetrative sexual assault | 0.59% (0.49–0.71) | 0.33% (0.22–0.48) | 2.10% (1.92–2.28) |
| Non-penetrative sexual assault | 0.92% (0.81–1.04) | 0.62% (0.50–0.77) | 2.60% (2.41–2.81) |
| Attempted penetrative | 0.03% (0.02–0.04) | 0.00% (0.00–0.01) | 0.19% (0.13–0.26) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

*Penetrative sexual assaults* are events that people often refer to as rape, including penetration of the mouth, anus, or vagina by a penis, body part, or object. We describe the measure as *penetrative sexual assault* in order to include both penetrative assaults that would be charged as rape and penetrative assaults that would be charged as sexual assault. *Non-penetrative assaults* include incidents in which private areas on the service member's body are touched without penetration, or where the service member is made to have contact with the private areas of another person's body.[4] The *attempted penetrative sexual assault* category applies only to those people who could not be classified as expe-

riencing crimes that could be charged directly via Article 120 (i.e., *penetrative* or *non-penetrative sexual assaults)*. That is, they indicated having experienced an event in which someone attempted to sexually assault them (charged via UCMJ Article 80), but the person never made physical contact with a private area of their body (which would have allowed categorization under the *non-penetrative sexual assault* category). This approach to classifying sexual assaults results in nearly all sexual assaults being categorized as either *penetrative* or *non-penetrative*, with very few classified as *attempted* assaults. A detailed analysis of how individuals answered the series of sexual assault questions, and thus were classified as having experienced a sexual assault, can be found in Volume 4.

The distribution across type of assault varies by gender. Almost one-half of all women classified as having experienced a sexual assault indicated the most serious type of crime, *penetrative sexual assault*, while about one-third of the assaulted men indicated the *penetrative* type. Combined with the higher prevalence of sexual assault against women, this means that women are estimated to have six times the risk of past-year *penetrative* sexual assault as do men.

The assaults can also be described by service and gender within each assault type, as shown in Tables 3.4 and 3.5. The overall pattern is similar to the pattern for all sexual assaults combined (Table 3.2). Men and women in the Air Force are at lower risk relative to the other services across both measures. There is also evidence that a significantly higher percentage of female Marines experienced a *penetrative sexual assault* and male sailors experienced a *non-penetrative* assault, relative to members of the same gender in other services.

**Table 3.4**
**Estimated Percentage of Active-Component Service Members Who Experienced Penetrative Sexual Assault in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 0.59%<br>(0.49–0.71) | 0.33%<br>(0.22–0.48) | 2.10%<br>(1.92–2.28) |
| Army | 0.54%<br>(0.41–0.69) | 0.29%<br>(0.17–0.48) | 2.05%<br>(1.78–2.34) |
| Navy | 0.81%<br>(0.54–1.15) | 0.43%<br>(0.16–0.92) | 2.55%<br>(2.13–3.04) |
| Air Force | 0.29%[a]<br>(0.24–0.34) | 0.07%[a]<br>(0.04–0.12) | 1.21%[a]<br>(1.07–1.38) |
| Marine Corps | 0.90%<br>(0.51–1.48) | 0.63%<br>(0.25–1.33) | 4.28%[a]<br>(3.35–5.38) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

**Table 3.5**
**Estimated Percentage of Active-Component Service Members Who Experienced Non-Penetrative Sexual Assault in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 0.92% (0.81–1.04) | 0.62% (0.50–0.77) | 2.60% (2.41–2.81) |
| Army | 0.91% (0.74–1.10) | 0.65% (0.47–0.88) | 2.51% (2.24–2.81) |
| Navy | 1.49%[a] (1.16–1.89) | 1.05%[a] (0.67–1.55) | 3.59% (3.06–4.17) |
| Air Force | 0.48%[a] (0.41–0.57) | 0.22%[a] (0.15–0.32) | 1.62%[a] (1.45–1.81) |
| Marine Corps | 0.71% (0.47–1.04) | 0.50% (0.26–0.87) | 3.40% (2.63–4.31) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

Among individuals who experienced at least one past-year sexual assault, 44 percent of women reported experiencing only one sexual assault in the past year, whereas 24 percent of men reported experiencing only one sexual assault. Respondents in the Navy were less likely to indicate a single assault in the past year (29 percent) as compared with respondents in the Air Force (45 percent), and junior enlisted personnel were less likely to indicate a single assault in the past year than junior officers (E1–E4, 31 percent; O1–O3, 49 percent). Sexually assaulted men reported experiencing a greater number of incidents in the prior year (Mean = 2.63; 95% CI: 2.30–2.97) than women (Mean = 1.98; 95% CI: 1.91–2.05).[5] Because many of those who experienced a sexual assault in the past year experienced multiple such incidents, the total number of past-year incidents exceeds the total number of service members who were assaulted. That is, the past-year incidence rates are necessarily higher than the past-year prevalence rates provided in Table 3.1. Specifically, while 1.54 per 100 service members experienced one or more sexual assaults in the past year, there were 3.57 (95% CI: 3.05–4.09) separate incidents in the past year per 100 service members.

The past-year incidence rate for men was 2.50 incidents per 100 members (95% CI: 1.90–3.10), which was estimated to be substantially lower than for women, who had 9.64 incidents per 100 members (95% CI: 9.00–10.28). However, because men make up a larger proportion of the military, we estimate that a majority of incidents (59.5%) were against men.

While prevalence (e.g., number of people experiencing one or more incidents per year) and incidence (e.g., number of incidents per year) are related metrics for assess-

ing sexual assault in the military, they are also different in important ways. In addition to preventing sexual assault, many military policies focus on improving the organizational response to a sexual assault. For example, policies have been implemented to increase reporting of assaults, increase enforcement, or increase convictions following a sexual assault. These efforts can be seen as preventing a second or third assault, but only take place after an initial assault has already occurred. Because the prevalence rate does not distinguish between a victim who was assaulted one time and a victim who was assaulted several times in the past year, prevalence rates may be less sensitive than incidence rates for detecting these types of improvements in the response to sexual assaults.

## Unwanted Events and Types of Events Categorized as Past-Year Sexual Assault

The sexual assault section of the survey used skip logic and follow-up questions to determine whether indicated unwanted events (the six sexual assault screening items) meet all the UCMJ criteria for a sexual assault. In this section, we describe some of the key findings from this sequence of questions to illustrate overall patterns of response and the types of answers that result in an individual being categorized as experiencing a past-year sexual assault. Detailed analyses on the flow of respondents through these questions and the resulting classifications of sexual assault can be found in Volume 4.

Combining data from the six screeners, we can estimate the number of individuals who indicated they experienced any of these unwanted events described in the six screening questions (Table 3.6) (e.g., "unwanted experiences in which someone intentionally touched private areas of your body either directly or through clothing"). These estimates are about 1 percentage point higher than the rates of sexual assault, thus about 1 percent of the population had one of the six types of unwanted experiences but that experience did not meet all of the UCMJ definitional criteria of sexual assault. Air Force rates of unwanted events are lower than the average of the other services, whereas Navy rates are higher, as are those for women in the Marine Corps. Women are more than three times as likely to indicate having these experiences as compared with men. The breakout of this variable across gender and pay grade can be found in the Annex to Volume 2, Table A.1.

Examination of the number of individuals who indicated each type of unwanted event shows variation across the types of unwanted experience for men and women (Table 3.7). Among both men and women, unwanted, intentional touching of their private areas was the most frequently indicated item. Being forced to penetrate someone else or experiencing an attempted penetration were rarely indicated.

The next step in classification involved two questions designed to capture the intentional nature of the events, to conform with UCMJ definitions of sexual assaults, which require the intent to be to "abuse, humiliate, harass, or degrade any person" or

**Table 3.6**
**Estimated Percentage of Active-Component Service Members Who Experienced Any Type of Unwanted Event, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 2.38% (2.17–2.59) | 1.77% (1.54–2.02) | 5.82% (5.54–6.11) |
| Army | 2.28% (1.99–2.60) | 1.73% (1.41–2.10) | 5.70% (5.29–6.14) |
| Navy | 3.59%[a] (3.03–4.22) | 2.73[a] (2.08–3.51) | 7.63%[a] (6.90–8.41) |
| Air Force | 1.16%[a] (1.03–1.31) | 0.61%[a] (0.47–0.79) | 3.54%[a] (3.29–3.81) |
| Marine Corps | 2.65% (2.03–3.39) | 2.14% (1.49–2.96) | 9.07%[a] (7.80–10.47) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

**Table 3.7**
**Indications of Unwanted Experiences on Sexual Assault Screener Items, by Gender**

| Type | Men | Women |
|---|---|---|
| Penetration by penis | 0.23% (0.15–0.34) | 1.79% (1.63–1.96) |
| Penetration by other body part or object | 0.26% (0.16–0.39) | 1.08% (0.95–1.23) |
| Forced to penetrate another person | 0.18% (0.12–0.26) | 0.31% (0.25–0.39) |
| Touched in private areas | 1.42% (1.21–1.65) | 4.66% (4.41–4.93) |
| Forced to touch another person | 0.45% (0.33–0.62) | 1.43% (1.28–1.60) |
| Attempted penetration | 0.24% (0.14–0.39) | 1.23% (1.09–1.39) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

"arouse or gratify the sexual desire of any person" (except for penile penetration, for which verification of the offender's intentions is not required by the UCMJ). Across all screeners, men who were classified as having experienced a past-year sexual assault were twice as likely as women to indicate that the intent of the assault was to abuse or

humiliate them (38.5 percent for men; 19.9 percent for women). This gender difference in rates of describing the assault as humiliating or abusive (rather than for sexual gratification) was consistent for penetrative and non-penetrative assaults.

For all those who indicated experiencing unwanted penile penetration (for which offenders' abusive, humiliating, or sexual intent does not need to be verified as per the UCMJ) and those who indicated experiencing other unwanted events coupled with offenders' intent consistent with the UCMJ, we next assessed for coercive offender behaviors that were consistent with the definitions in UCMJ Article 120. Respondents were presented with a series of eight possible types of coercion and asked to indicate whether each type did or did not occur during the unwanted event. Respondents who indicated that the unwanted event was coerced by any of the eight methods described in the UCMJ were classified as experiencing a sexual assault. If none of the eight methods applied to the unwanted event, respondents were asked about three additional forms of coercion. Most respondents who reached this point in the screening had already identified a UCMJ-consistent method of coercion, so the unwanted event had already been classified as a sexual assault (66–98 percent of respondents across screening items), indicating that most of the unwanted events reported included either force, threats, or other forms of coercion or lack of consent (see Volume 4 for details).

Among those who indicated coercion or lack of consent on any of these items and thus were classified as having experienced a sexual assault, Table 3.8 summarizes the types of coercion or non-consent they indicated. For simplicity, Table 3.8 presents the types of coercive offender behavior among those who were classified as having experienced a penetrative sexual assault. The most commonly indicated forms of coercion were the offender continuing despite being told or shown that the victim was unwilling (76 percent of men and 79 percent of women) and use of physical force (67 percent of men and 55 percent of women). Men reported injury in a large fraction of these events, and threats of injury in about one-half of the events, whereas women were less likely to indicate physical injuries or threats. A substantial minority of individuals reported that the assault occurred when they were incapacitated (asleep or passed out) or unable to consent due to intoxication. Very few respondents received the last three items in this section of the survey, as those were only given to those who indicated that none of the circumstances already presented had occurred.

Among those classified as experiencing a non-penetrative sexual assault in the past year, the pattern of non-consent or coercive offender behavior was descriptively different than for penetrative sexual assaults. As can be seen in Table 3.9, among those classified as having experienced non-penetrative assaults, the two most common forms of coercion were (a) the offender continued the behavior after the respondent showed the offender that he or she was unwilling and (b) that the behavior occurred without the victim's consent. Approximately one-quarter of these cases involved the use of physical force, a rate significantly lower than with penetrative assaults. Injuries were less frequent among the non-penetrative assaults, as was incapacitation.

**Table 3.8**
**Types of Offender Behaviors Indicating Coercion/Lack of Consent for Past-Year Penetrative Sexual Assaults, by Gender**

| Question | Men | Women |
|---|---|---|
| They continued even when you told them or showed them that you were unwilling | NR (57.51–89.40) | 78.94% (75.18–82.37) |
| They used physical force to make you comply | NR (49.91–81.33) | 54.64% (50.28–58.95) |
| They physically injured you | NR (24.19–63.37) | 19.41%[a] (16.25–22.89) |
| They threatened to physically hurt you (or someone else) | NR (26.26–65.40) | 9.25%[a] (6.96–11.99) |
| They threatened you (or someone else) in some other way | NR (33.53–71.00) | 15.71%[a] (12.86–18.91) |
| They did it when you were passed out, asleep, or unconscious | NR (14.84–45.92) | 41.33% (37.08–45.68) |
| They did it when you were so drunk, high, or drugged that you could not understand what was happening or could not show them that you were unwilling | NR (26.17–63.45) | 47.05% (42.70–51.43) |
| They tricked you into thinking that they were someone else or that they were allowed to do it for a professional purpose (like a person pretending to be a doctor) | NR (13.39–45.31) | 3.42%[a] (2.12–5.21) |
| They made you so afraid that you froze and could not tell them or show them that you were unwilling[b] | 0.24% (0.00–4.81) | 0.48% (0.08–1.54) |
| They did it after you had consumed so much alcohol that the next day you could not remember what happened[b] | 0.23% (0.00–4.81) | 0.36% (0.07–1.06) |
| It happened without your consent[b] | 0.00% (0.00–10.94) | 1.78% (0.99–2.94) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses. NR = Not reportable.

[a] Significant difference between men and women.

[b] These items were asked only of respondents who had indicated that none of the earlier items was true in their experience.

In summary, penetrative assaults described on this survey were more likely to have involved physical force, injuries, and threats than the non-penetrative assaults, particularly among men, and also more likely to involve drug and alcohol incapacitation (for men and women) than non-penetrative assaults.

**Table 3.9**
**Types of Offender Behaviors Indicating Coercion/Lack of Consent for Past-Year Non-Penetrative Sexual Assaults, by Gender**

| Question | Men | Women |
|---|---|---|
| They continued even when you told them or showed them that you were unwilling | 60.75% (50.44–70.39) | 54.15% (50.26–58.01) |
| They used physical force to make you comply | 13.96% (8.08–21.88) | 24.04%[a] (20.63–27.72) |
| They physically injured you | 5.02% (1.92–10.44) | 4.59% (3.02–6.67) |
| They threatened to physically hurt you (or someone else) | 7.94% (3.29–15.58) | 4.69% (3.17–6.65) |
| They threatened you (or someone else) in some other way | 15.52% (9.10–24.04) | 20.36% (17.10–23.94) |
| They did it when you were passed out, asleep, or unconscious | 7.12% (1.05–22.09) | 11.64% (9.02–14.70) |
| They did it when you were so drunk, high, or drugged that you could not understand what was happening or could not show them that you were unwilling | 10.12% (3.02–23.23) | 15.61% (12.66–18.94) |
| They tricked you into thinking that they were someone else or that they were allowed to do it for a professional purpose (like a person pretending to be a doctor) | 0.35% (0.00–2.41) | 1.86%[a] (1.13–2.87) |
| They made you so afraid that you froze and could not tell them or show them that you were unwilling[b] | 1.68% (0.41–4.50) | 1.73% (0.90–3.01) |
| They did it after you had consumed so much alcohol that the next day you could not remember what happened[b] | 1.19% (0.18–3.90) | 0.65% (0.21–1.51) |
| It happened without your consent[b] | 31.31% (22.74–40.93) | 28.71% (25.46–32.12) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Statistically significant difference between men and women ($p < 0.05$).

[b] These items were asked only of respondents who had indicated that none of the earlier items was true in their experience.

## Sexual Assaults Experienced Prior to the Past Year

In addition to the main section of the survey, which assessed past-year sexual assaults, all respondents were asked about experiences that happened more than a year ago, "of an abusive, humiliating, or sexual nature, and that occurred even though you did not want it and did not consent." This question also contains a definition of "did not consent." The series of questions included five items that we combined to make three categories: (1) penetrative sexual assault—being penetrated (penile or non-penile penetration) or penetrating someone else; (2) non-penetrative sexual assault—being touched in private areas, being forced to touch someone else's private areas; and (3) attempted

penetration. Unlike the assessment of sexual assault in the past year, this measure did not have a detailed series of follow-up questions to assess UCMJ criteria, but included those criteria in the instructions to this section of the survey.

### Lifetime Sexual Assault Rates

By combining sexual assaults that occurred in the past year and those that occurred more than a year ago, we estimate that 4.9 percent of service members had experienced a sexual assault in their lifetimes (Table 3.10). There was a substantial gender difference, with servicewomen at seven times greater risk than servicemen for a sexual assault during their lifetime. The lifetime prevalence rates of sexual assault differed across the services, with Navy service members reporting the highest rates overall. The other three services are generally similar and are not always significantly different from one another. The breakout of this variable across gender and pay grade can be found in the Annex to Volume 2, Table A.2.

### Sexual Assault Rates Prior to Joining the Military

For those respondents who experienced a sexual assault prior to the past year, we asked if any sexual assault happened before they joined the military. Approximately 2 percent of service members had been sexually assaulted prior to beginning their military careers (8.2 percent of women and 0.9 percent of men). Navy respondents indicated higher than average rates of sexual assault prior to joining the military, and Marines reported the lowest (Table 3.11).

**Table 3.10**
**Estimated Percentage of Active-Component Service Members Who Experienced a Sexual Assault Across Lifetime, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 4.87%<br>(4.66–5.07) | 2.57%<br>(2.34–2.81) | 17.89%<br>(17.49–18.29) |
| Army | 4.45%[a]<br>(4.16–4.75) | 2.36%<br>(2.05–2.71) | 17.46%<br>(16.84–18.10) |
| Navy | 6.78%[a]<br>(6.21–7.39) | 3.96%[a]<br>(3.32–4.69) | 20.03%[a]<br>(19.07–21.02) |
| Air Force | 4.14%[a]<br>(3.95–4.34) | 1.54%[a]<br>(1.35–1.75) | 15.34%[a]<br>(14.84–15.84) |
| Marine Corps | 3.99%[a]<br>(3.38–4.69) | 2.52%<br>(1.89–3.29) | 22.48%[a]<br>(20.73–24.31) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

**Table 3.11**
**Estimated Percentage of Active-Component Service Members Who Experienced a Sexual Assault Prior to Joining the Military, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 1.98% (1.87–2.10) | 0.91% (0.79–1.04) | 8.17% (7.88–8.47) |
| Army | 1.83% (1.65–2.03) | 0.90% (0.71–1.13) | 7.69%[a] (7.26–8.14) |
| Navy | 2.52%[a] (2.23–2.82) | 1.14% (0.84–1.50) | 9.00%[a] (8.30–9.74) |
| Air Force | 2.03% (1.90–2.17) | 0.73% (0.61–0.87) | 7.62%[a] (7.26–7.99) |
| Marine Corps | 1.51%[a] (1.17–1.91) | 0.86% (0.53–1.31) | 9.64% (8.35–11.05) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

### Sexual Assault Rates Since Joining the Military

We estimated the prevalence of sexual assault during a respondent's time in the military by combining those who were classified as having experienced a sexual assault in the past year with those who were sexually assaulted more than a year ago but after joining the military. It is important to note that this is not the same as an estimate of the rates of sexual assault over the course of a military career, because most people in our sample have not yet completed their careers. Instead, it is a snapshot in time that provides an estimate of how many active-component members currently serving have been sexually assaulted at least once since joining the military. Because the average length of careers is slightly different across services, comparisons across services on this measure should be interpreted with caution. Servicewomen in the Air Force were less likely to indicate a sexual assault since joining the military as compared with the average of the other services (Table 3.12). Women indicated sexual assault since joining the military at much higher rates than men (15 percent versus 2 percent). The breakout of this variable across gender and pay grade can be found in the Annex to Volume 2, Table A.3.

## Characteristics of the Sexual Assault or the "Most Serious" of Multiple Assaults in the Past Year

Respondents who were classified as having experienced a sexual assault in the past year were asked a variety of follow-up questions describing the event. Those who

**Table 3.12**
**Estimated Percentage of Active-Component Service Members Who Experienced a Sexual Assault Since Joining the Military, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 3.99% (3.80–4.18) | 2.10% (1.89–2.33) | 14.69% (14.32–15.06) |
| Army | 3.68% (3.41– 3.97) | 1.95% (1.66–2.28) | 14.49% (13.92–15.08) |
| Navy | 5.71% (5.18– 6.29) | 3.37% (2.77–4.07) | 16.71% (15.82–17.64) |
| Air Force | 3.10% (2.93–3.27) | 1.05% (0.88–1.24) | 11.94%[a] (11.50–12.40) |
| Marine Corps | 3.41% (2.83–4.07) | 2.13% (1.54–2.86) | 19.48% (17.83–21.21) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

reported a single event were queried about that assault, whereas those who reported multiple sexual assaults in the past year were asked questions about the event that had the "biggest effect on you. . . . that you consider to be the worst or most serious." In the following sections, we summarize the key findings on the single or "most serious" sexual assault experienced in the past year. Tables summarizing the items by gender, by service, and by pay grade can be found in the Annex to Volume 2, Tables A.5.a–A.36.g.

### Type of Assault

Among individuals completing questions about sexual assaults experienced in the past year, 37 percent were answering about an event that included penetration, 61 percent were answering about an event that included unwanted touching but no penetration, and 2 percent were answering about an attempted penetration, without unwanted touching. Men were more likely to be describing a non-penetrative assault for the follow-up items than women. Junior enlisted personnel were more likely to indicate it was a penetrative assault (41 percent) than personnel in the other pay grades (range of 23 to 28 percent). In general, the distribution across assault types for these questions (which are restricted to assault the respondent judged to be "most serious" for those who had multiple assaults) is very similar to the classification used earlier in which penetrative assaults were assumed to be more severe than non-penetrative, which in turn were assumed to be more severe than attempted penetration. See the Annex to Volume 2, Tables A.6.a–A.6.g, for additional details.

### Description of Offender(s)

In the majority of cases, the offender(s) were a man or men only (79 percent), with a woman or women only indicated as the offender(s) about 15 percent of the time. Some differences across services were observed. Women almost always indicated that the offender(s) were male or a mix of men and women (98 percent), significantly more than men, who indicated that the offender(s) were male or a mix of men and women in about 70 percent of assaults. Most respondents indicated that there was a single offender (55 percent), with 42 percent indicating more than one offender and 3 percent unsure. Men (49 percent) were more likely than women (35 percent) to report multiple offenders, as were junior enlisted as compared with junior officers (E1–E4, 45 percent; O1–O3, 29 percent). In most assaults, the offender(s) were known to the respondent, with women more likely than men to have known the offender(s) (89 percent overall; 93 percent of women, 85 percent of men). However, few were intimate partners or family members.

A substantial number of respondents said the offender was a "friend or acquaintance" (57 percent overall) and this was indicated more frequently by women than men (67 percent of women, 46 percent of men). The vast majority of respondents indicated that the offender(s) included "someone in the military" (85 percent overall), with a higher proportion of women indicating this than men (89 percent of women, 81 percent of men), and about 10 percent indicated the offender was a civilian or contractor working for the military. Among those who indicated that the offender(s) included someone in the military, about one-half of respondents (54 percent) indicated that the highest ranking offender was someone higher in rank than the respondent, with 35 percent of similar rank and 9 percent of lower rank. Fifteen percent indicated that the offender(s) included military officers. Among those that indicated someone of higher rank, one-third said that person was a unit leader or someone above them in their chain of command. See the Annex to Volume 2, Tables A.5.a–A.5.g and A.7.a–A.13.g, for additional details.

### Description of Assault Location and Circumstances

Consistent with the identities of offenders described above, the majority of respondents indicated that the event occurred on a military installation or ship (65 percent) and about one-half indicated it occurred during the work day/duty hours (49 percent) with a higher proportion of men indicating this than women (33 percent of women; 64 percent of men). Service members in the Air Force were significantly less likely than those in the Army or Navy to indicate that the assaults occurred on a military installation or during the work day, and enlisted personnel were more likely to indicate it occurred in a work setting than junior officers. About one-fifth of respondents indicated the event occurred while on temporary duty (TDY)/temporary additional duty (TAD), at sea, or during field exercises/alerts (19 percent overall: 15 percent of women; 23 percent of men) and 15 percent indicated it occurred while deployed to a combat zone (9 percent

of women; 20 percent of men). Service members in the Air Force were less likely to indicate that the assault took place while in recruit training than those in the Army, and those in the Navy were less likely than those in the Army to indicate that it took place during military combat training. Other types of military training activities were more rarely indicated, perhaps because low numbers of respondents participated in them. See the Annex to Volume 2, Tables A.14.a–A.14.g, for additional details.

In terms of contextual factors, a substantial number of respondents (30 percent) indicated the assault occurred when "out with friends or at a party" (35 percent of women, 24 percent of men), whereas 43 percent indicated they were "at work," with this more likely among men (57 percent) than women (30 percent). Those in the Air Force were more likely to indicate it happened out with friends or at a party than those in the Marine Corps or the Army, and less likely than those in the Army or Navy to say it happened at work. About 17 percent of individuals who were sexually assaulted indicated they were in their own home or quarters; 18 percent indicated they were in someone else's home or quarters; with each of these being more likely among women. Seventeen percent indicated they were at a military function, which was more likely among men (24 percent of men; 10 percent of women). Respondents were less likely to indicate the assault setting was "on a date," "being intimate with the other person," or "being alone in a public place." See the Annex to Volume 2, Tables A.15.a–A.15.g, for additional details.

One item supplied a definition of hazing and asked whether the respondent would describe the event as hazing.[6] Overall, 20 percent indicated "yes" to this item, with a higher proportion of men indicating it was hazing than women (6 percent of women; 34 percent of men), and junior enlisted personnel more likely to consider their assault hazing than junior officers (E1–E4, 21 percent; E5–E9, 22 percent; O1–O3, 4 percent). (See the Annex to Volume 2, Tables A.16.a–A.16.g, for additional details.) It is worth noting that events classified as hazing were sometimes severe; for example, hazing and non-hazing assaults of men were nearly equally likely to involve penetration. In addition, the hazing sexual assaults of men were significantly more likely to involve multiple offenders than the non-hazing sexual assaults ($p < 0.05$).

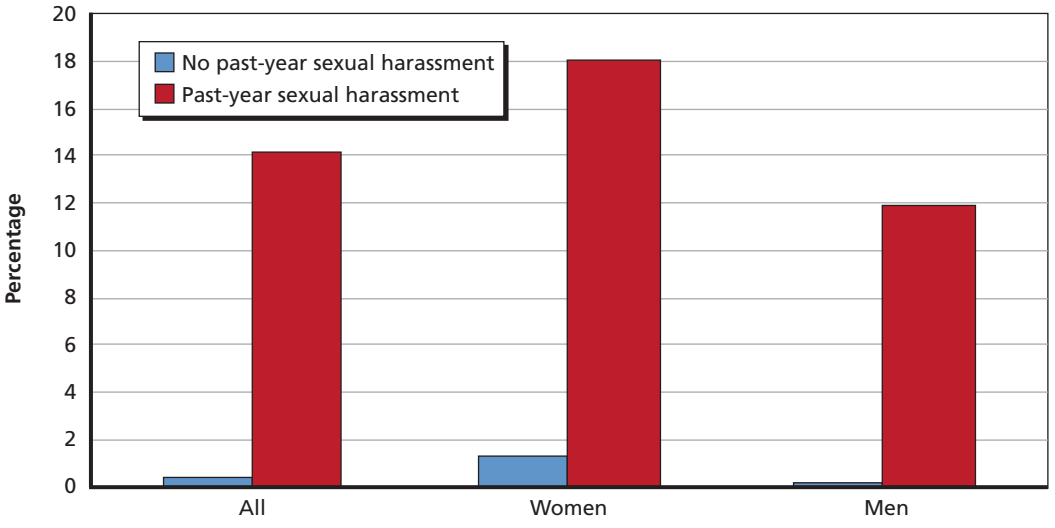
Four questions asked about harassment before and after the assault, as well as stalking before and after the assault. About one-third of respondents who were sexually assaulted indicated that the offender(s) "sexually harassed" them before the assault, and one-third after the assault took place, and about 10 percent said the offender "stalked" them before, and after, the assault. (See the Annex to Volume 2, Tables A.17.a–A.17.g, for additional details.) We also examined classification of sexual harassment on the survey. Among those who were classified as having experienced sexual harassment in the past year (see Chapter Four), 18.09 percent (95% CI: 16.71–19.53) of women and 11.92 percent (95% CI: 8.91–15.51) of men (14.17 percent overall [95% CI: 12.15–16.38]) experienced a sexual assault during that year. In contrast, rates of sexual assault were much lower among those who did not experience sexual harassment (0.38 per-

cent overall [95% CI: 0.30–0.47]; 1.29 percent among women [95% CI: 1.11–1.49]; 0.24 percent among men [95% CI: 0.16–0.36]) (Figure 3.1).

This association is driven in part by the fact that many sexual assaults would also be counted as sexual harassment if they occurred in the workplace or the offender was a work colleague. In contrast, sexual assaults would not generally be characterized as gender discrimination on the RMWS survey; nevertheless, we also find a strong correlation between past-year gender discrimination and past-year sexual assault. Specifically, women who experienced gender discrimination in the past year were almost four times more likely to have been sexually assaulted in the past year relative to women who did not experience gender discrimination in the past year (13.97 percent [95% CI: 12.32–15.74] compared with 3.61 percent [95% CI: 3.30–3.95]). Similarly, men who experienced gender discrimination in the past year were almost 12 times more likely to have experienced a sexual assault in the past year relative to those who did not experience gender discrimination in the past year (10.12 percent [95% CI: 6.51–14.82] compared with 0.85 percent [95% CI: 0.63–1.13]).

One-third of participants who were sexually assaulted indicated that they had been drinking at the time of the assault (33 percent), with a higher proportion of women indicating they had been drinking than men (41 percent of women; 25 percent of men). About one-half of those who drank any alcohol indicated that the offender(s) had bought or given them a drink just prior to the assault (51 percent). Six percent of respondents indicated that they may have been given a drug without their knowledge or consent (3 percent of women; 9 percent of men). A substantial number indicated that

**Figure 3.1**
**Percentages of Past-Year Sexual Assault Among Those With and Without Past-Year Sexual Harassment**

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the offender(s) had been drinking alcohol at the time of the assault (37 percent) with women indicating this to be true more often than men (50 percent of women; 24 percent of men). Collapsing across drinking for either the respondent or the offender, 43 percent (95% CI: 37.8–47.9) indicated that either the victim or the offender, or both, had been drinking, with a higher proportion of women than men indicting any alcohol involvement (women: 56 percent, 95% CI: 53.0–58.9; men: 29 percent, 95% CI: 20.4–39.4), and with a higher proportion of Air Force personnel indicating any alcohol involvement than in the Army (Air Force: 56 percent, 95% CI: 49.6–61.5; Army: 37 percent, 95% CI: 30.2–43.4). This finding is consistent with the finding that assaults on members of the Air Force were less likely to occur during work hours. See the Annex to Volume 2, Tables A.18.a–A.18.g, for additional details.

Combining the data from several variables, we can derive an overall picture of the proportion of assaults that involved military personnel or settings (the person who assaulted them was in the military or worked for the military, it happened in a military location or at a military function): 90.2 percent indicated that the assault occurred in a military context (95% CI: 87.1–92.8). Men were less likely than women to indicate that the assault occurred in a military context—women 93.3 percent, 95% CI: 92.0–94.4; men 87.2 percent (95% CI: 80.7–92.2), $p < 0.01$—and respondents in the Air Force were less likely than those in the Navy to indicate that it occurred in a military context—Navy 93.2 percent (95% CI: 88.8–96.2); Air Force 85.2 percent (95% CI: 80.0–89.5), $p < 0.01$.

### Consequences of the Past-Year Assault

Respondents also answered questions about specific impacts of the single or most serious sexual assault that occurred in the past year. Thirty-five percent indicated that the event made them want to leave the military, with no differences across gender, but victims in the Army (41 percent) were more likely than those in the Air Force (25 percent) to have this reaction, as were enlisted personnel as compared with officers (E1–E4, 36 percent; E5–E9, 37 percent; O1–O3, 22 percent; O4–O6, 13 percent). Thirteen percent indicated that they requested a transfer or other change of assignment. Forty-six percent of respondents indicated that the assault made it hard to do their work, and 20 percent indicated that they took a sick day or other leave because of the event. About 40 percent indicated that the assault damaged their personal relationships, with a larger proportion of women indicating this (48 percent) than men (33 percent). See the Annex to Volume 2, Tables A.19.a–A.19.g, for additional details.

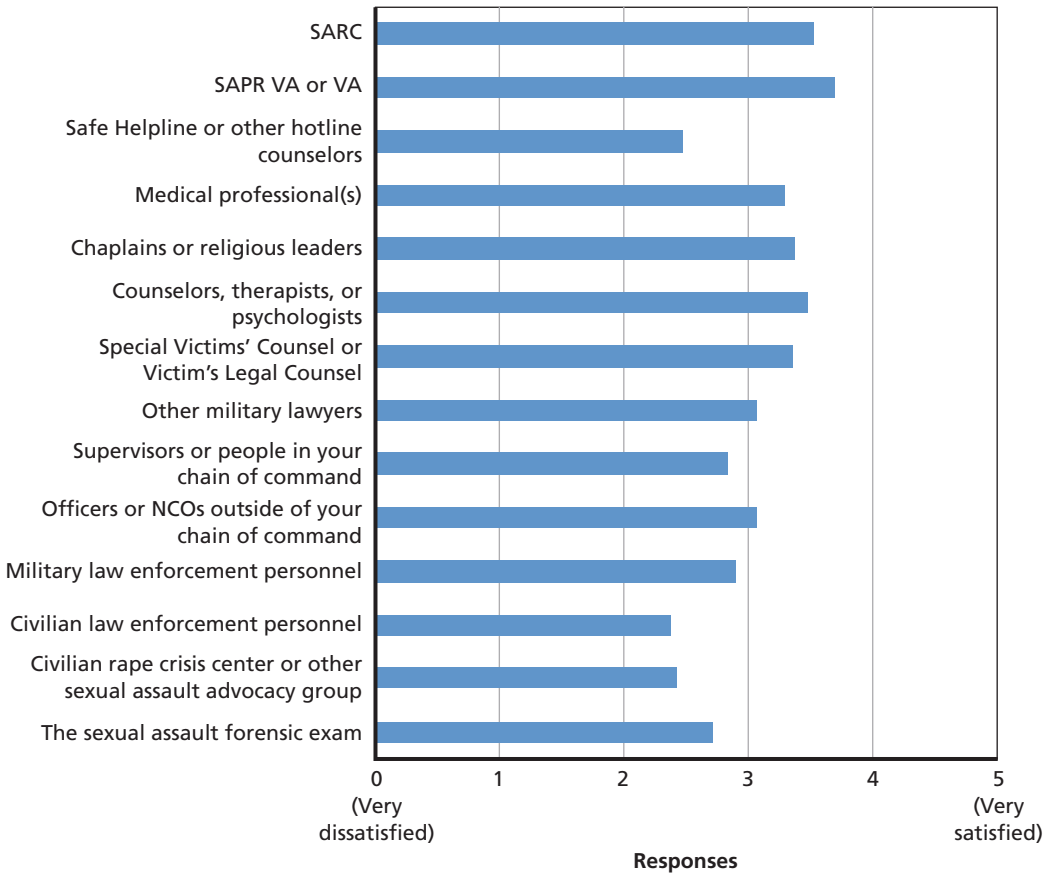
### Telling Others/Reporting Past-Year Assault

About one-half of respondents indicated they had told anyone about the assault (51 percent overall); however, this was more common among women than men (62 percent of women, 40 percent of men). Among those who experienced a sexual assault, 43 percent talked about it with a friend or family member, with women more likely to have done

so than men (56 percent of women, 29 percent of men). Others talked about it with supervisors or someone in the chain of command (21 percent), sexual assault response coordinators (SARCs; 15 percent), and sexual assault prevention and response (SAPR) victim advocates (SAPR VA or VAs; 13 percent), counselors, therapists or psychologists (13 percent), noncommissioned officers or officers outside the chain of command (10 percent), and medical professionals (11 percent). Women were more likely to talk with SARCs, VAs, and counselors/therapists than men. Some differences across services emerged, with those in the Navy less likely to talk with several of the individuals listed than those in the Army. Use of the Safe Helpline, civilian law enforcement, or rape crisis groups were quite rare.

We asked respondents whether they were satisfied with the experience of talking to these people about their assaults (with each group assessed only among respondents who said they talked to that type of person about the assault). In Figure 3.2, mean

**Figure 3.2**
**Mean Satisfaction with Service Providers**

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satisfaction across type of person showed moderate levels of satisfaction, between "neither satisfied nor dissatisfied" and "satisfied" for most groups. However, on average, respondents indicated that they were on the dissatisfied end of the continuum for supervisors or people in the respondents' chain of command, and military law enforcement personnel. Satisfaction was also lower for Safe Helpline or other counselors, the sexual assault forensic exam, and civilian resources, but these were also not frequently utilized. We were unable to examine gender or service differences on these variables due to small sample size.

Fifteen percent of those who experienced sexual assault filed an official report about it, with a higher proportion of women reporting than men (22 percent of women, 8 percent of men). Respondents in the Navy were less likely to file an official report than those in the Air Force or Army, and officers (3 percent of O4–O6) were less likely to report than junior enlisted personnel (19 percent of E1–E4). Of the reports filed, 41 percent were unrestricted reports, 23 percent were restricted reports that converted to unrestricted reports, and 27 percent were restricted reports.[7]

We also asked all respondents, regardless of their earlier answers about whether they told anyone about or reported the most serious event, if they signed a DD Form 2910 for an assault in the past year.[8] These Victim Preference Reporting Statements serve as the basis for official DoD statistics on sexual assault reporting. The survey included a link to an image of the form to enhance recall. Eleven percent of respondents who were sexually assaulted in the past year indicated that they had signed or initialed this form, and an additional 11 percent indicated that they were not sure. The rates of signing this form were much higher for women (19 percent) than for men (4 percent).

Eight percent of those who experienced sexual assault were interviewed by military police or a criminal investigator about the case. Consistent with the finding that men were less likely to officially report, a higher proportion of women than men indicated being interviewed (14 percent of women, 2 percent of men). Two percent said the suspect had been arrested or charged with a crime (with a higher proportion of women than men indicating this: women 4 percent, men < 1 percent). We asked several questions about the status of the criminal case, but the sample size for these responses was too small. Given that these assaults took place between 0 and 12 months ago, criminal investigations and prosecutions may have been in the early stages of the UCMJ process for many assaults.

Among those who made an official report, we asked about reasons for reporting, and respondents could select as many reasons as applied to them. The top-rated reasons were "to stop the offender(s) from hurting others" (50 percent), "someone you told encouraged you to report" (43 percent), and "to stop the offender(s) from hurting you again" (36 percent).

Among those who did not make an official report, we asked for their reasons for not reporting. Here there was more variability in responses, with some items indicated

often and others rarely and with some apparent differences observed across services (see the Annex to Volume 2 for details). Whereas men and women chose not to report sexual assaults for many of the same reasons, men were more likely to say they did not report the crime because they feared they would be viewed as gay or bisexual if others learned of it, with 28 percent of men indicating that this was one of the reasons they did not report, as compared to two percent of women. In order to identify important points of intervention, we asked participants to indicate their primary reason for not reporting. The most frequently indicated primary reasons for not reporting were that the respondent "thought it was not serious enough to report" (18 percent), and "wanted to forget about it and move on" (17 percent). Categorizing similar items together, concerns about possible retaliation (15 percent), concerns about a negative perception of the respondent (14 percent), handling the situation in some other way (13 percent), and concerns about the reporting process (10 percent) were also significant reasons for not reporting the assault (Table 3.13).

Seventy-two percent of past-year sexual assault victims indicated that they would make the same choice about reporting if they had to make the decision again, with about equal rates indicating that they would make the same choice among those who filed an official report and those who did not. More respondents indicated they would make the same choice about reporting again if they did not experience any kind of retaliation or negative career actions (79.61 percent, 95% CI: 75.58–83.24) than those who did experience one of these events (54.63 percent, 95% CI: 41.90–66.93).

See the Annex to Volume 2, Tables A.20.a–A.32.g and Tables A.35.a–A.36.g, for additional details.

#### Perceived Retaliation and Negative Career Actions

The survey included four items asking all service members who experienced a sexual assault if they perceived they experienced retaliation or negative career actions related to the sexual assault. Responses to the individual items ranged from a low of 4 percent for "experienced any punishment for an infraction" to a high of 27 percent for "any social retaliation." We also combined data from these four types of perceived retaliation or negative career actions. Overall, 31 percent (95% CI: 25.29–36.70) of those who experienced a sexual assault reported at least one of these—including 30 percent of women (95% CI: 26.8–32.4) and 32 percent of men (95% CI: 21.6–44.0).

Among the subset of women who officially reported a sexual assault, types of perceived retaliation or negative career actions included social retaliation (44.4 percent, 95% CI: 34.3–54.8), professional retaliation (27.5 percent, 95% CI: 20.2–35.7), unwanted administrative actions (25.1 percent, 95% CI: 18.0–33.5), and punishments (10.4 percent, 95% CI: 5.8–16.7). Collapsing across these consequences, experience of perceived social retaliation or professional retaliation was indicated by 52.0 percent (95% CI: 45.55–58.46) of women who officially reported the sexual assault, whereas any of the four types of events was indicated by 54.5 percent (95% CI: 47.9–60.9).

**Table 3.13**
**Main Reasons for Not Reporting Sexual Assault Among Active-Component Service Members Who Chose Not to Report a Past-Year Sexual Assault**

| Reason | Percentage |
|---|---|
| Minimizing event | |
| You thought it was not serious enough to report | 18 |
| You felt partially to blame | 6 |
| Total | 24 |
| Worried about retaliation | |
| You worried about retaliation by your supervisor or higher up | 6 |
| You thought it might hurt your career | 2 |
| You thought you might get in trouble for something you did | 2 |
| You thought you might be labeled as a troublemaker | 1 |
| You worried about retaliation by the person(s) who did it | 2 |
| You worried about retaliation by your military co-workers/peers | 1 |
| You thought it might hurt your performance/fitness evaluation | <1 |
| Total | 15 |
| Concerns about perception | |
| You did not want more people to know | 6 |
| You did not want people to think you were LGBT | 4 |
| You did not want people to see you as weak | 3 |
| You thought other people would blame you | 1 |
| Total | 14 |
| You handled it other way or it didn't need to be handled | |
| You took other actions to handle the situation | 13 |
| Someone else already reported it | <1 |
| You reported it to civilian authorities/law enforcement | <1 |
| Total | 13 |
| Concerns about process | |
| You did not think anything would be done | 6 |
| You did not trust the process would be fair | 2 |
| You did not think your report would be kept confidential | 2 |
| You did not think you would be believed | 1 |
| Total | 10 |
| Other | |
| You wanted to forget about it and move on | 17 |
| You did not want to hurt the person's career or family | 6 |
| You did not know how to report it | 1 |
| Someone told you not to report it | <1 |

NOTE: Percentages do not always add up to category total due to rounding.

(Too few men reported sexual assaults to yield a reliable estimate of the percentage who experienced these events.) See the Annex to Volume 2, Tables A.33.a–A.34.g, for additional details.

## Summary

In the year prior to the survey fielding, 5 percent of active-component military women and 1 percent of men experienced at least one sexual assault, as defined in the UCMJ. A majority of individuals who experienced a sexual assault in the past year experienced more than one such event, with certain groups at higher risk for repeated assaults (men and junior enlisted personnel). The types and patterns of assaults showed substantial variability, but the vast majority of the assaults occurred in a military context (e.g., at a military installation, during work hours, by an offender in the military). A substantial number of men considered the assault to be hazing, and this was more likely among enlisted personnel as well. The Air Force, which had lower rates of sexual assault in the past year as compared with the other services, also showed a different pattern, in which the assaults were slightly less likely to occur on a military installation or during duty hours, and slightly more likely to involve alcohol. Findings suggest that these assaults affected many in terms of personal relationships, work productivity, and a desire to leave the military. About one-half of those assaulted told someone about it, and 15 percent made an official report. Among those who talked to someone in the military about the assault, they were slightly more likely to be satisfied than dissatisfied, with room for improvement in interactions with supervisors and those in the chain of command, as well as with military law enforcement personnel.

CHAPTER FOUR

# Sexual Harassment and Gender Discrimination Findings: Active Component

*Coreen Farris, Lisa H. Jaycox, Terry L. Schell, Amy E. Street, Dean G. Kilpatrick, and Terri Tanielian*

In this chapter, we provide estimates of the proportion of the active-component force that experienced one of two forms of sexual harassment (a sexually hostile work environment or *quid pro quo* harassment) or gender discrimination in the past year. According to DoD directives, both sexual harassment and gender discrimination are sex-based military equal opportunity (MEO) violations. For those who experienced sexual harassment or gender discrimination in the past year, we report the characteristics of the events and the offender(s),[1] the effect on workplace productivity and intentions to stay on active duty, disclosure choices, responses to reports of MEO violations, and barriers to reporting among those who chose not to do so.

The findings and conclusions described in this chapter are subject to the limitations of self-report survey research. A full investigation of the experiences described by respondents could find that incidents we do not classify as sexual harassment or gender discrimination may indeed qualify as MEO violations, whereas some of those we classify as sexual harassment or gender discrimination may prove not to be such violations.

## Prevalence of Sexual Harassment and Gender Discrimination

Our measures of sexual harassment and gender discrimination assessed a number of specific types of MEO violations. All of the violations focused on the military workplace by querying about inappropriate workplace behaviors committed by "someone from work." We used the phrase "someone from work" rather than "coworker" to ensure that respondents included all work contacts, not just those they perceived as peers. We asked respondents to consider any person they have contact with as part of their military duties, and reminded them that this person could be a supervisor, above or below them in rank, a civilian employee or contractor, and could be in their unit or another unit.

The *sexually hostile work environment* measure was designed to capture a type of sexual harassment that includes sexual language, gestures, images, or behaviors that offend or anger service members. These upsetting workplace events are categorized

as a hostile workplace violation if the offensive behavior was either persistent (i.e., the respondent indicated the behavior continued even after the offender knew that it was upsetting to others) or is described by the respondent as severe (i.e., the behavior was so severe that most service members would find it offensive). Table 4.1 shows that this type of sexual harassment is commonly faced by active-component service members (9 percent) and is more common for women than men. We estimate that one-fifth of women experienced offensive sexual behavior in the past year that DoD directives would define as an unlawful form of discrimination that deprives service members of their rights to equal opportunities in the military. The pattern of findings also suggests that active-component members of the Air Force report significantly different experiences than the other branches of service. In particular, the estimated percentage of Air Force members who were the target of a sexually hostile work environment violation in the past year was markedly lower than that of other services. Even in this branch, however, we estimate that nearly 1 out of every 8 women experienced such events in the past year.

The measure of *sexual quid pro quo* (a Latin phrase meaning "this for that") identifies incidents in which someone used his or her power or influence within the military to attempt to coerce sexual behavior. These inappropriate workplace events are categorized as a sexual harassment violation if the respondents indicated they had direct evidence that a workplace benefit or punishment was contingent on a sexual behavior. Hearsay or rumor was not considered sufficient evidence to categorize an event as a *quid pro quo* violation. Unlike sexually hostile work environments, this form of sexual harassment is comparatively rare (Table 4.2). We estimate that approximately 1 in 60

**Table 4.1**
**Estimated Percentage of Active-Component Service Members Who Experienced a Sexually Hostile Work Environment in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 8.80% (8.36–9.27) | 6.58% (6.07–7.12) | 21.41% (20.81–22.03) |
| Army | 9.75%[a] (9.01–10.53) | 7.65%[a] (6.81–8.56) | 22.87%[a] (21.92–23.84) |
| Navy | 11.73%[a] (10.60–12.94) | 8.34%[a] (7.02–9.81) | 27.71%[a] (26.21–29.26) |
| Air Force | 4.96%[a] (4.56–5.38) | 3.26%[a] (2.80–3.77) | 12.32%[a] (11.72–12.95) |
| Marine Corps | 7.68% (6.41–9.13) | 6.11% (4.76–7.70) | 27.19%[a] (24.68–29.80) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

**Table 4.2**
**Estimated Percentage of Active-Component Service Members Who Experienced Sexual *Quid Pro Quo* in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 0.54% (0.41–0.70) | 0.35% (0.21–0.55) | 1.66% (1.46–1.89) |
| Army | 0.65% (0.49–0.84) | 0.41% (0.25–0.64) | 2.12%[a] (1.79–2.49) |
| Navy | 0.80% (0.43–1.38) | 0.50% (0.12–1.34) | 2.22% (1.70–2.85) |
| Air Force | 0.14%[a] (0.10–0.20) | 0.06%[a] (0.03–0.12) | 0.50%[a] (0.37–0.65) |
| Marine Corps | 0.50% (0.16–1.20) | 0.37% (0.05–1.26) | 2.12% (1.31–3.25) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

women and 1 in 300 men were targets of a *quid pro quo* offer in the past year. As with the other form of sexual harassment, members of the Air Force were at substantially lower risk for these events relative to members of the other services.

Although sexual *quid pro quo* events are much rarer than sexually hostile work environments, they represent a particularly serious category of offense within the military. Because military leaders have great authority over service members' lives, more than supervisors in the civilian workplace, this type of misuse of authority is a significant concern. In some cases, these acts are also likely to be crimes (e.g., under UCMJ Articles 92, 93, 133, and 134), not just MEO violations. Thus, although rare, it will be valuable to monitor these offenses over time to assess the progress of military policies in reducing their prevalence.

The two measures we have discussed thus far, sexually hostile work environment and sexual *quid pro quo*, together constitute the legal construct of sexual harassment. Thus, our sexual harassment measure (Table 4.3) includes all service members who experienced either of these subtypes of sexual harassment. Approximately 9 percent of active-component service members were classified as experiencing some form of sexual harassment in the past year, which corresponds to 116,600 members (95% CI: 110,700–122,700). The overall measure of sexual harassment may not be as descriptively useful as its components, however, because it is dominated by the more common form of harassment (sexually hostile work environment). A comparison of Table 4.3 and Table 4.1 shows that the aggregate rate of sexual harassment is almost identical to the rate of sexually hostile work environments, which means that the vast

**Table 4.3**
**Estimated Percentage of Active-Component Service Members Who Experienced Sexual Harassment in the Past Year, By Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 8.85% (8.40–9.31) | 6.61% (6.09–7.15) | 21.57% (20.96–22.19) |
| Army | 9.80%[a] (9.05–10.58) | 7.67%[a] (6.83–8.58) | 23.07%[a] (22.12–24.05) |
| Navy | 11.78%[a] (10.65-12.99) | 8.37%[a] (7.05–9.84) | 27.82%[a] (26.31–29.36) |
| Air Force | 4.99%[a] (4.60–5.42) | 3.29%[a] (2.82–3.80) | 12.43%[a] (11.82–13.07) |
| Marine Corps | 7.69% (6.42–9.14) | 6.11% (4.76–7.70) | 27.30%[a] (24.79–29.92) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

majority of individuals who indicated that they experienced a sexual *quid pro quo* also indicated being sexually harassed in a sexually hostile work environment. This also suggests that sexually hostile work environments may put members at a higher risk for sexual *quid pro quo* overtures; that is, the vast majority of those describing *quid pro quo* experiences also describe having experienced a sexually hostile workplace in the past year.

The *gender discrimination* measure assesses incidents in which the respondent indicated that he or she heard derogatory gender-related comments or was mistreated on the basis of his or her gender. For inappropriate workplace events to be categorized as a gender discrimination violation, respondents had to indicate that the mistreatment harmed their military career (e.g., adversely affected their evaluation, promotion, or assignment). About 3 percent of the active-component force had experienced gender discrimination in the past year, with women more likely to have these experiences than men. We estimate that 1 in 8 women and 1 in 60 men were targets of gender discrimination in the past year (Table 4.4). This corresponds to 43,900 (95% CI: 41,300–46,600) active-component service members experiencing gender discrimination in the past year. As with the sexual harassment, women in the Air Force are estimated to be less than one-half as likely as those in other services to experience gender discrimination in the past year. Among men, our estimates suggest that both airmen and Marines experienced less gender discrimination relative to soldiers and sailors.

The concept of gender discrimination is particularly challenging to assess in a self-report survey. Unlike sexual harassment, many forms of gender discrimination

**Table 4.4**
**Estimated Percentage of Active-Component Service Members Who Experienced Gender Discrimination in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 3.33% (3.14–3.54) | 1.73% (1.52–1.96) | 12.40% (11.93–12.88) |
| Army | 3.86%[a] (3.54–4.21) | 2.11%[a] (1.77–2.49) | 14.80%[a] (14.02–15.61) |
| Navy | 4.65%[a] (4.07–5.28) | 2.52%[a] (1.89–3.27) | 14.65%[a] (13.50–15.86) |
| Air Force | 1.95%[a] (1.78–2.13) | 0.86%[a] (0.70–1.04) | 6.69%[a] (6.23–7.17) |
| Marine Corps | 1.97%[a] (1.62–2.38) | 0.87%[a] (0.60–1.23) | 15.59%[a] (13.65–17.70) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

occur without the victim's awareness. Because our estimates are based on self-reports, they cannot count incidents in which discrimination occurred without the respondent knowing. We cannot estimate how common these hidden cases of discrimination may be. On the other hand, respondents may sometimes attribute mistreatment to their gender when there were other legitimate causes of their adverse work experience. In spite of these interpretational difficulties, the fact that 1 in every 8 women perceived themselves to have been treated unfairly in the military because of their gender represents a problem.

Given that both sexual harassment and gender discrimination are MEO violations, leaders will want to know the proportion of the force that has experienced either of these events in the past year. Table 4.5 and Table B.5 in the Annex to Volume 3 provide this information. Note that the totals for service members who experienced either sexual harassment or gender discrimination are noticeably higher than the total for either experience individually. This suggests that a substantial proportion of those who experienced gender discrimination did not also experience a sexually hostile work environment. Because this measure combines several distinct phenomena that are likely to be affected by different types of policy or educational interventions, this combined measure may not be ideal for evaluating DoD progress on achieving key MEO goals. Even relatively substantial changes in gender discrimination or sexual *quid pro quo* over time may be difficult to detect in this aggregate measure.

**Table 4.5**
**Estimated Percentage of Active-Component Service Members Who Experienced Sexual Harassment or Gender Discrimination in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 10.21% (9.75–10.68) | 7.43% (6.91–7.99) | 25.97% (25.34–26.61) |
| Army | 11.30%[a] (10.54–12.10) | 8.53%[a] (7.67–9.45) | 28.62%[a] (27.61–29.64) |
| Navy | 13.56%[a] (12.39–14.79) | 9.61%[a] (8.25–11.11) | 32.16%[a] (30.62–33.72) |
| Air Force | 6.05%[a] (5.64–6.48) | 3.84%[a] (3.36–4.37) | 15.66%[a] (14.99–16.35) |
| Marine Corps | 8.51%[a] (7.21–9.95) | 6.65% (5.28–8.25) | 31.43%[a] (28.85–34.11) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

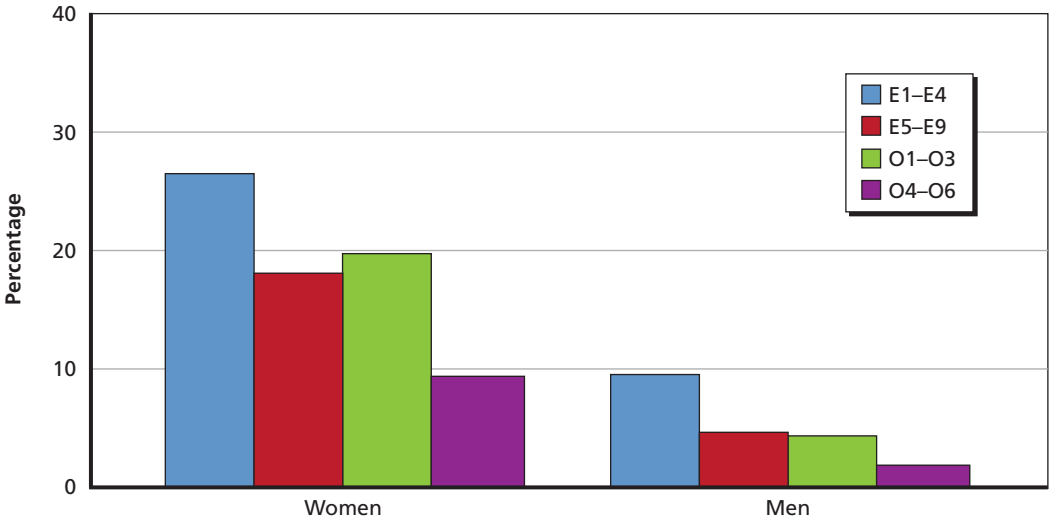
[a] Percentage is significantly different from the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

## Relationship Between Pay Grade and Sexual Harassment

Among women, senior enlisted service members (18 percent) were less likely than junior enlisted service members (27 percent) to have experienced sexual harassment (i.e., hostile work environment and/or *quid pro quo* harassment) in the past year. Similarly, senior female officers (9 percent) were less likely to have experienced sexual harassment in the past year than junior female officers (20 percent). Figure 4.1 illustrates these results and additional details are available in the Annex to Volume 2, Tables B.1–B.3. Although there are reductions in prevalence as servicewomen move into higher ranks, it is worth noting that the proportion of senior women who are sexually harassed remains substantial. Even for successful military women who have risen through the ranks, nearly 1 in 10 senior officers and nearly 1 in 5 senior enlisted service members still experience sexual harassment.

Among men, one-half as many senior enlisted service members (5 percent) compared with junior enlisted members (10 percent) were sexually harassed in the past year. For male officers, again, senior officers (2 percent) are less likely than junior officers (5 percent) to have experienced sexual harassment in the past year.

**Figure 4.1**
**Percentage of Active-Component Service Members Who Experienced Sexual Harassment in the Past Year, by Gender and Pay Grade**

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## Relationship Between Pay Grade and Gender Discrimination

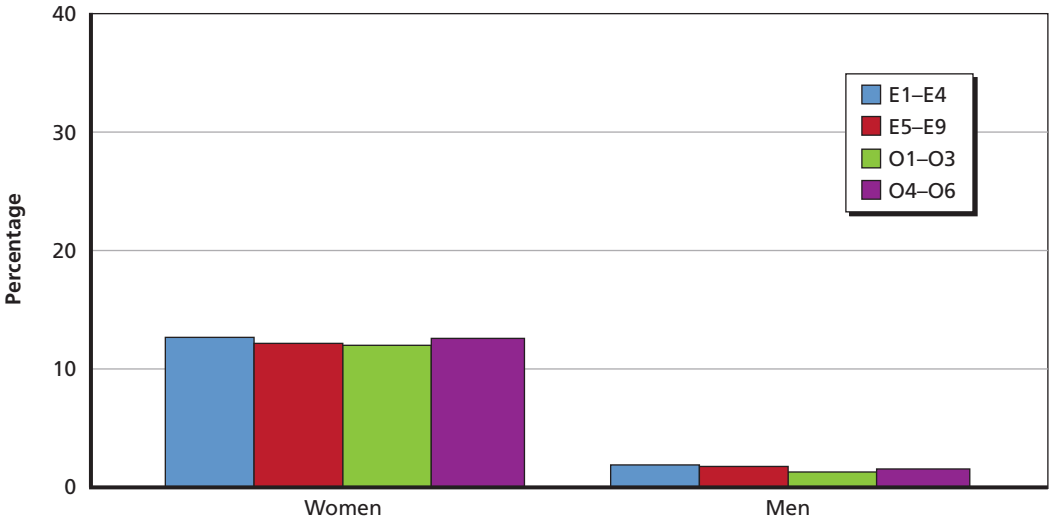
Among women, rates of gender discrimination were remarkably similar across pay grades. Approximately the same percentage of senior female enlisted service members (12 percent) and junior enlisted service members (13 percent) were categorized as experiencing gender discrimination in the past year. A similar proportion of senior female officers (13 percent) and junior female officers experienced gender discrimination in the past year (12 percent). The same was true among men, where pay grade had no significant effect on the likelihood of experiencing gender discrimination in the past year. See Figure 4.2 and the Annex to Volume 2, Table B.4, for additional details.

Unlike sexual harassment, in which increasing seniority seems to reduce—although not eliminate—harassment, gender discrimination seems not to distinguish among service members at different pay grades. Men and women who have risen to senior ranks perceive harms to their career due to gender discrimination by their superiors at approximately the same rates as do those in lower ranks.

## Inappropriate Workplace Behaviors

The RMWS assessment of sexual harassment and gender discrimination begins with a series of questions to assess inappropriate workplace behaviors. For those who have experienced an inappropriate workplace behavior, the survey relies on follow-up ques-

**Figure 4.2**
**Percentage of Active-Component Service Members Who Experienced Gender Discrimination in the Past Year, by Gender and Pay Grade**

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tions to assess whether the inappropriate workplace behavior that they experienced would meet DoD criteria for an MEO violation. Although, for some service members, the inappropriate workplace behaviors they experienced were not ultimately characterized as sexual harassment or gender discrimination, many military leaders will nonetheless be interested in these as possible precursors to more serious violations and as evidence of poor discipline in the workplace. In this section, we describe the past-year prevalence of each surveyed inappropriate workplace behavior.

Table 4.6 presents the proportion of individuals who indicated they had a past-year experience with any of the 15 inappropriate workplace behaviors (whether or not they also met persistence, severity, direct evidence, or harm to career criteria assessed via follow-up questions). Across all workplace behaviors, women were more likely than men to have experienced each. In the most extreme differentiation between the genders, women (9 percent) were nearly 15 times more likely than men (0.6 percent) to indicate that someone from work had made repeated attempts to establish an unwanted romantic or sexual relationship that the respondent found offensive.

As seen in Table 4.6, some inappropriate workplace behaviors were quite common. For example, 1 in 4 military women (24 percent) indicated that someone from work had "mistreated, ignored, excluded, or insulted you because you are a woman." Others were more rare, but nonetheless concerning. For example, 1 in 100 military women (1 percent) indicated that someone from work had taken or shared sexually suggestive pictures or videos of them.

**Table 4.6**
**Estimated Percentage of Active-Component Service Members Who Experienced Each Type of Inappropriate Workplace Behavior in the Past Year**

| | Men | Women |
|---|---|---|
| Repeatedly tell sexual "jokes" that made you uncomfortable, angry, or upset? | 5.2% (4.69–5.68) | 13.1% (12.57–13.61) |
| Embarrass, anger, or upset you by repeatedly suggesting that you do not act like a [man/woman] is supposed to? | 6.3% (5.75–6.84) | 7.7% (7.24–8.08) |
| Repeatedly make sexual gestures or sexual body movements that made you uncomfortable, angry, or upset? | 2.7% (2.28–3.07) | 5.1% (4.77–5.51) |
| Display, show, or send sexually explicit materials like pictures or videos that made you uncomfortable, angry, or upset? | 1.6% (1.34–1.85) | 3.6% (3.31–3.90) |
| Repeatedly tell you about their sexual activities in a way that made you uncomfortable, angry, or upset? | 3.5% (3.15–3.95) | 7.6% (7.14–7.97) |
| Repeatedly ask you questions about your sex life or sexual interests that made you uncomfortable, angry, or upset? | 2.9% (2.49–3.27) | 8.2% (7.79–8.68) |
| Make repeated sexual comments about your appearance or body that made you uncomfortable, angry, or upset? | 2.0% (1.70–2.35) | 8.7% (8.26–9.15) |
| Either take or share sexually suggestive pictures or videos of you when you did not want them to? AND Did this make you uncomfortable, angry, or upset? | 0.4% (0.31–0.62) | 1.0% (0.88–1.19) |
| Make repeated attempts to establish an unwanted romantic or sexual relationship with you? AND Did these attempts make you uncomfortable, angry, or upset? | 0.6% (0.44–0.83) | 9.0% (8.58–9.48) |
| Intentionally touch you in a sexual way when you did not want them to? | 1.2% (0.95–1.45) | 3.1% (2.77–3.36) |
| Repeatedly touch you in any other way that made you uncomfortable, angry, or upset? | 1.4% (1.16–1.64) | 5.3% (4.97–5.68) |
| Made you feel as if you would get some workplace benefit in exchange for doing something sexual? | 0.4% (0.27–0.61) | 1.8% (1.60–2.05) |
| Made you feel like you would get punished or treated unfairly in the workplace if you did not do something sexual? | 0.3% (0.22–0.47) | 1.4% (1.20–1.57) |
| Did you hear someone from work say that [men/women] are not as good as [women/men] at your particular job, or that [men/women] should be prevented from having your job? | 1.8% (1.62–2.08) | 19.6% (18.96–20.16) |
| Do you think someone from work mistreated, ignored, excluded, or insulted you because you are a [man/woman]? | 3.1% (2.82–3.41) | 24.4% (23.76–24.97) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

## Types of Sexual Harassment and Gender Discrimination Violations

Next, we review the proportion of service members who—for each separate inappropriate workplace behavior—were categorized as experiencing sexual harassment or gender discrimination as defined by legal precedent and DoD directives.

For the inappropriate hostile workplace behaviors, respondents were categorized as having experienced a *sexually hostile work environment violation* if they also indicated that the behavior continued even after the person was aware that someone wanted them to stop (persistence) or if the respondent believed the behavior was severe enough that most people of the same gender in the military would be offended if it had happened to them (severity/reasonable person standard). The percentage of male and female service members who experienced each type of event are summarized in Table 4.7, and the Annex to Volume 2, Tables B.6.a–B.6.g, provides further details, including confidence intervals. Note that this summary is for those who meet the legal or DoD standard for sexual harassment, as opposed to the inappropriate behaviors summarized in Table 4.6, which included all events—those that did and did not rise to the level of a violation.

**Table 4.7**
**Estimated Percentage of Active-Component Service Members Who Experienced Each Type of Sexual Harassment (Hostile Workplace or *Quid Pro Quo*) or Gender Discrimination Violation in the Past Year**

| | Men (%) | Women (%) |
|---|---|---|
| **Sexually Hostile Work Environment Violations** | 6.6 | 21.4 |
| Repeatedly tell sexual "jokes" that made you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 2.5 | 11.0 |
| Embarrass, anger, or upset you by repeatedly suggesting that you do not act like a [man/woman] is supposed to? Events were persistent or severe.[a] | 3.6 | 6.3 |
| Repeatedly make sexual gestures or sexual body movements (for example, thrusting their pelvis or grabbing their crotch) that made you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 1.5 | 4.5 |
| Display, show, or send sexually explicit materials like pictures or videos that made you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 0.8 | 3.0 |
| Repeatedly tell you about their sexual activities in a way that made you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 1.7 | 6.4 |
| Repeatedly ask you questions about your sex life or sexual interests that made you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 1.5 | 6.8 |
| Make repeated sexual comments about your appearance or body that made you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 1.3 | 7.3 |

**Table 4.7—Continued**

| | Men (%) | Women (%) |
|---|---|---|
| Either take or share sexually suggestive pictures or videos of you when you did not want them to? AND Did this make you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 0.2 | 0.9 |
| Make repeated attempts to establish an unwanted romantic or sexual relationship with you? AND Did these attempts make you uncomfortable, angry, or upset? Events were persistent or severe.[a] | 0.4 | 7.5 |
| Intentionally touch you in a sexual way when you did not want them to? Categorized as severe without additional follow-up questions. | 1.2 | 3.1 |
| Repeatedly touch you in any other way that made you uncomfortable, angry, or upset? Events were persistent or severe.[a,b] | 2.0 | 7.0 |
| ***Quid Pro Quo* Violations** | 0.4 | 1.7 |
| Direct evidence of a workplace benefit in exchange for doing something sexual?[c] | 0.3 | 1.4 |
| Direct evidence of a threat of punishment or unfair treatment in the workplace if you did not do something sexual?[c] | 0.2 | 1.0 |
| **Gender Discrimination Violations** | 1.7 | 12.4 |
| Perceived harm to military career based on hearing someone from work say that [men/women] are not as good as [women/men] at your particular job, or that [men/women] should be prevented from having your job?[d] | 0.6 | 8.1 |
| Perceived harm to military career because someone from work mistreated, ignored, excluded, or insulted you because you are a [man/woman]?[d] | 1.6 | 10.6 |

[a] Follow-up questions established that the event(s) were persistent (the behavior continued even after the person was aware that someone wanted them to stop) or severe (most people of the same gender in the military would be offended if it had happened to them).

[b] Respondents who were touched in a sexual way are also categorized in this more-inclusive any touching category. For this reason, the percentage of men classified as experiencing this type of sexual harassment is larger than the percentage who indicated they experienced this particular type of inappropriate workplace behavior (which was not asked of those who indicated SH10, "Intentionally touch you in a sexual way when you did not want them to?").

[c] Follow-up questions established that the respondent had direct evidence of an offer (rumors or the respondent's inference based on the person's personality were not adequate to categorize the event as a *quid pro quo* violation).

[d] A follow-up question assessed whether the event(s) harmed the respondent's military career (e.g., hurt an evaluation/fitness report, affected promotion or next assignment).

For the inappropriate *quid pro quo* workplace behaviors, respondents were categorized as having experienced a *quid pro quo violation* if they had direct evidence that an offer or exchange occurred. Those who had only indirect evidence (i.e., heard rumors or inferred it from the person's personality) were not included among those who experienced a *quid pro quo* violation in Table 4.7.

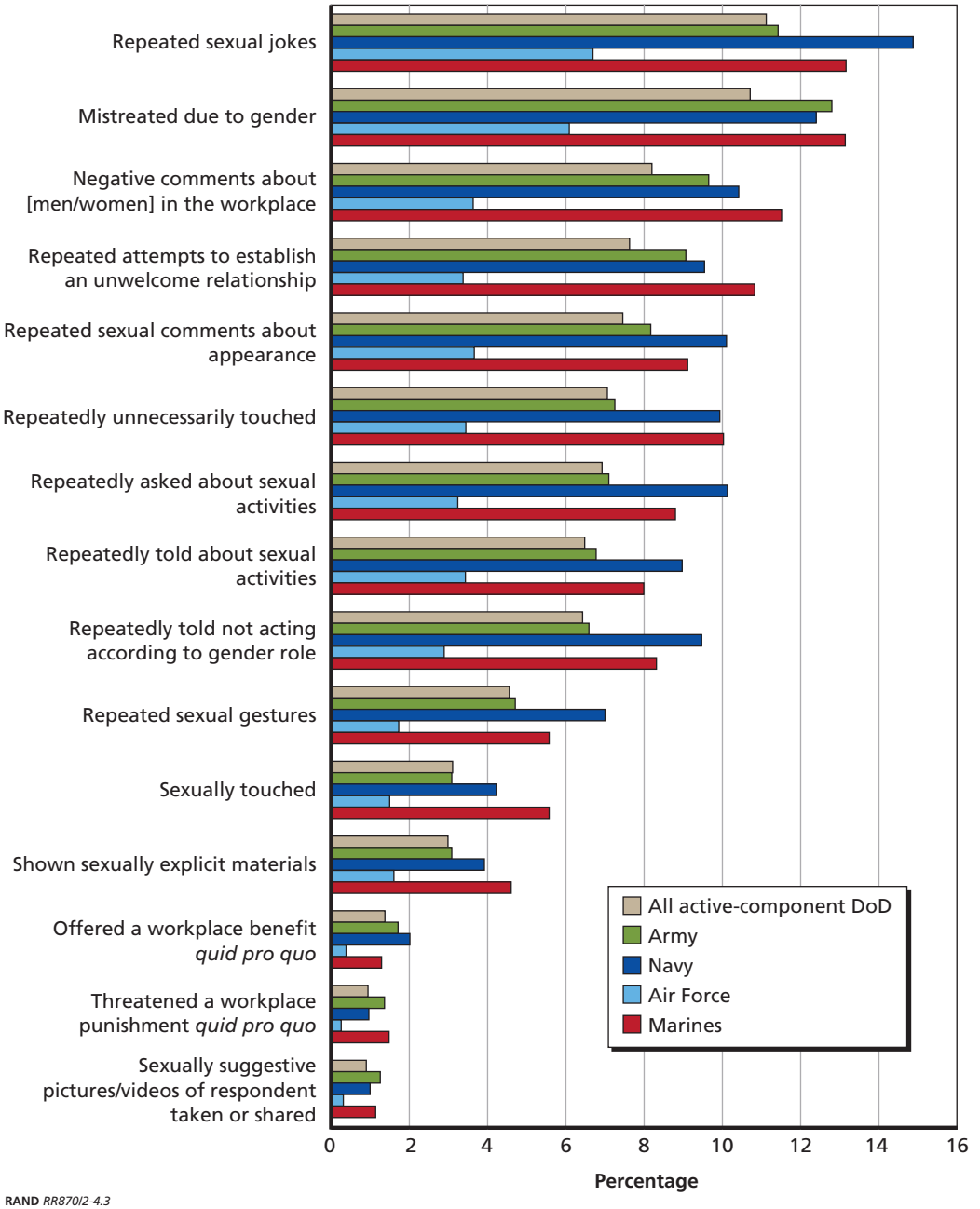
Finally, for inappropriate gender discrimination behaviors, respondents were categorized as having experienced a *gender discrimination violation* if they also indicated that the person's behavior had directly harmed their career.

Figure 4.3 shows the estimated percentage of servicewomen who were the target of workplace behaviors that met our sexual harassment (sexually hostile work environment or *quid pro quo* violation) or gender discrimination criteria for each of 15 types of violations. Types of violations are ordered from the most to least prevalent when calculated for active-component women. The most common violations for women were offensive sexual jokes in the workplace that were persistent or severe (11 percent), being mistreated due to gender (11 percent), and coworkers making discriminatory comments about women that negatively affected the person's career (8 percent). Figure 4 also illustrates prevalence differences across the four services. Women who serve in the Army, Navy, or Marine Corps are more likely than women who serve in the Air Force to experience all types of sexual harassment and gender discrimination violations. See Chapter Six for a detailed analysis of service differences.

Figure 4.4 shows the percentage of men who were subjected to a workplace behavior that rose to the level of sexual harassment or gender discrimination. For ease of comparison across genders, violations are listed in the same order as for women in Figure 4.3. Comparing across the two figures reveals that men are less likely than women to experience all 15 measured types of sexual harassment and gender discrimination. It is also notable that the pattern of violations is quite different for men than for women. For men, the most common violation was persistent or severe accusations of not acting according to men's gender role (4 percent). The next most common violations were hearing persistent or severe, offensive sexual jokes in the workplace (3 percent) and unnecessary physical touching (2 percent).

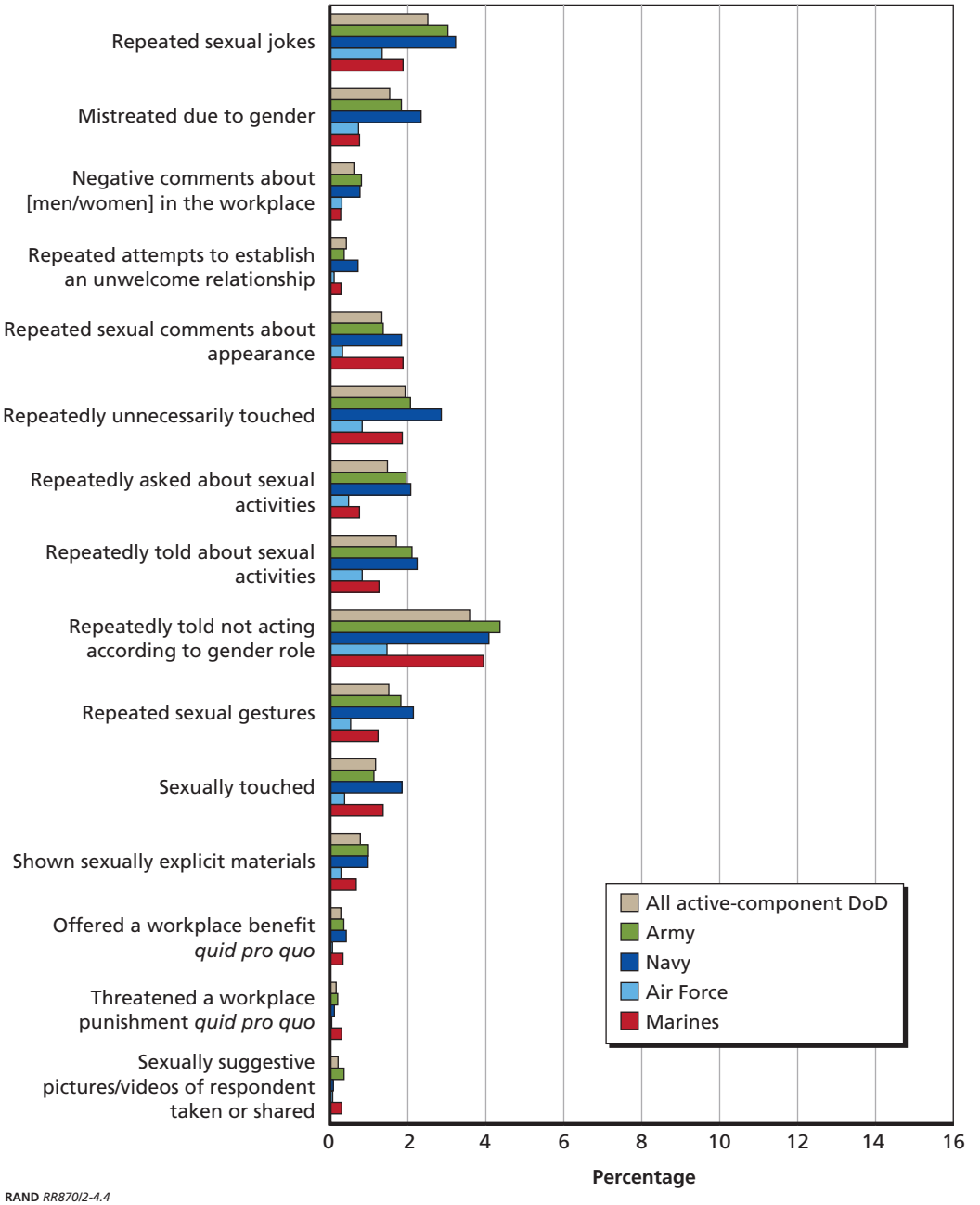
Many service members indicated that they experienced more than one of the 15 measured forms of sexual harassment and gender discrimination violations. For those who had at least one experience that rose to the level of a violation, the average number of sexual harassment and gender discrimination types experienced in the past year was 3.3 for women (SD = 2.53; Min = 1, Max = 15) and 2.6 for men (SD = 2.21; Min = 1, Max = 15). This convergence of events is important to recall when interpreting the values in Table 4.7 and Figures 4.3 and 4.4. Many of the individuals who are classified as having a certain type of sexual harassment or gender discrimination experience will also have experienced other types of events. As one example, consider the most common violation for women—hearing repeated, offensive sexual jokes in the workplace that were persistent or severe. The substantial majority of women who experi-

**Figure 4.3**
**Percentage of Women in Each Branch of Service Who Experienced Each Type of Sexual Harassment or Gender Discrimination Violation in the Past Year**




RAND *RR870/2-4.3*

**Figure 4.4**
**Percentage of Men in Each Branch of Service Who Experienced Each Type of Sexual Harassment or Gender Discrimination Violation in the Past Year**




RAND *RR870/2-4.4*

enced this type of MEO violation in the past year (86 percent) also experienced at least one additional violation type in the same year.

## Self-Identification of Events as Sexual Harassment

We asked service members who were categorized as having experienced sexual harassment whether they believed the events they experienced were sexual harassment. Women (70 percent) were more likely than men (50 percent) to consider the events sexual harassment (see the Annex to Volume 2, Tables B.7.a–B.7.g). The relatively large proportion of service members who did not self-label their experiences as harassment, which we classified as actually meeting DoD sexual harassment criteria, may reflect a number of issues. First, educational efforts to teach service members the boundaries of professional workplace behaviors and the definition of sexual harassment may not have been fully successful. This appears to be particularly relevant to male service members, for whom the discrepancy is larger. Alternatively, some service members may feel uncomfortable characterizing their own experiences as sexual harassment or may be hesitant to paint their military workplace in a poor light on a survey. In either case, there is a sizable discrepancy between having experienced events that we classified as meeting DoD criteria for sexual harassment and being capable of self-identifying those events as sexual harassment. Moving forward, the degree of mismatch could be a potential metric to assess the success of DoD sexual harassment education and stigma-reduction efforts.

## Description of Past-Year Sexual Harassment or Gender Discrimination

All respondents who had experiences consistent with legal and DoD definitions of sexual harassment or gender discrimination were asked a series of questions that assessed the characteristics of these events, their disclosure choices, the system response to disclosed events, and barriers to reporting among those who chose not to disclose their experiences. Some respondents who had experienced sexual harassment or gender discrimination in the past year indicated that it had occurred in different situations and was committed by different people (43 percent; 95% CI: 40.85–45.74). These individuals responded to all subsequent questions while considering the situation that had the "biggest effect" on them, the one they considered "to be the worst or most serious." For this reason, the descriptions that follow are representative of a target's single or most serious sexual harassment or gender discrimination experience. It is possible that an account of all situations (rather than a victim's choice of the worst situation when multiple occurred) would be different than the description reported here. For example, if victims select coworker-perpetrated events more often than supervisor-

perpetrated events as their most serious experience, then we would expect the proportion of supervisors represented in all sexual harassment situations to be higher than the proportion of supervisors we measured for single or worst sexual harassment situations. Unless otherwise noted, the descriptive statistics in this chapter are limited to those who experienced sexual harassment or gender discrimination as defined by DoD.

### Characteristics of the Offender

In the single or worst situation, 43 percent of targets indicated that there was more than one person who harassed or discriminated against them; a higher proportion of men (46 percent) were harassed by a group than were women (37 percent; see Table 4.8 and the Annex to Volume 2, Tables B.8.a–B.14.g, for all characteristics). Offenders were most often men, but not always. Among female targets, the offender was a man or men for 87 percent of respondents. Among male targets, this percentage is lower (67 percent). Many offenders continued to sexually harass or discriminate against the target for a long time. One-third (33 percent) of respondents who had experienced sexual harassment or gender discrimination indicated that the situation continued for "a few months" and an additional 25 percent indicated that it continued for "a year or more." Men (29 percent) were more likely than women (20 percent) to report that the harassment or discrimination continued for a year or longer. One-fifth of targets (20 percent) indicated that it was a single event that happened one time.

**Table 4.8**
**Characteristics of the Situation and Offenders**

| | Total | Men | Women |
|---|---|---|---|
| Number of offenders | | | |
| Individual | 57% | 54% | 63% |
| Group | 43% | 46% | 37% |
| Gender of the offender(s) | | | |
| Man or men only | 75% | 67% | 87% |
| Woman or women only | 11% | 16% | 3% |
| Mix of men and women | 14% | 16% | 10% |
| Duration of situation | | | |
| One time | 20% | 21% | 20% |
| About one week | 10% | 11% | 10% |
| About one month | 11% | 10% | 12% |
| A few months | 33% | 29% | 39% |
| A year or more | 25% | 29% | 20% |

**Table 4.8—Continued**

| | Total | Men | Women |
|---|---|---|---|
| Military status of the offender(s) | | | |
| Military service member | 94% | 95% | 93% |
| Higher rank | 67% | 67% | 67% |
| Similar rank | 27% | 27% | 27% |
| Lower rank | 6% | 6% | 6% |
| DoD civilian employee or contractor | 3% | 2% | 4% |
| Neither or don't know | 3% | 3% | 2% |
| Work role of the offender(s) | | | |
| Supervisor or unit leader | 59% | 60% | 58% |
| Peer at about the same level | 35% | 34% | 37% |
| Subordinate | 5% | 5% | 4% |
| Other | 1% | 1% | 1% |
| Locations where the behavior ever occurred | | | |
| On a military installation/ship | 94% | 94% | 93% |
| While respondent was on TDY/TAD, at sea, or during field exercises/alerts | 31% | 34% | 28% |
| While respondent was deployed to a combat zone or to an area where respondent drew imminent danger pay or hostile fire pay | 21% | 22% | 20% |
| During recruit training/basic training | 12% | 13% | 9% |
| In a civilian location | 24% | 22% | 26% |

Offenders were almost always military service members; 94 percent of targets indicated that the person(s) who sexually harassed or discriminated against them was a military member (or that the group of persons who did it included a military service member). The remaining offenders were either contractors or DoD civilian employees (3 percent) or a non-categorized other (3 percent). Senior officers (16 percent) were more likely to be harassed or discriminated against by contractors or DoD civilians, than were junior officers (6 percent), senior enlisted (4 percent), and junior enlisted (1 percent) service members (see the Annex to Volume 2, Table B.11.e).

Among the 94 percent of offenders who were military service members, 67 percent were a higher rank than the target (or if it was committed by a group, the group included at least one member of higher rank), 27 percent were "about the same rank," and 6 percent were "of lower rank." Marines (76 percent) were more likely to be harassed or discriminated against by someone of a higher rank than were members of the Navy

(63 percent) and Air Force (65 percent; see the Annex to Volume 2, Table B.12.b). Offenders were often the target's supervisor or unit leader; 59 percent of targets said that the person who harassed or discriminated against them was their supervisor or unit leader (or that the group targeting them included their supervisor or unit leader). Marines (69 percent) were more likely than members of the Navy (55 percent) and Air Force (54 percent) to be harassed or discriminated against by a supervisor or unit leader (see the Annex to Volume 2, Table B.10.b).

For almost all respondents, the harassment or discrimination occurred on a military installation or ship (94 percent). In sum, the sexual harassment and gender discrimination that occurs within the military involve largely service member against service member violations, as would be expected given the focus on inappropriate behaviors from "someone at work." Very often the situation reflected a misuse of power by people of higher rank or in a supervisory role to the target.

#### Effect on Workplace Productivity, the Unit's Mission, and Military Retention

Many of those who experienced sexual harassment and gender discrimination perceived an adverse influence of these negative workplace events on productivity and other workplace-relevant outcomes. Among the more common perceived workplace outcomes among targets of sexual harassment or gender discrimination were that it caused arguments in the workplace or damaged workplace cohesion (53 percent), made it difficult to complete their work (50 percent), or either made the workplace less productive or compromised the unit's mission (48 percent). Thirteen percent of targets took at least one sick day or other type of leave as a result of the harassment or discrimination, and 28 percent believed that it negatively affected their work evaluations or promotion. See the Annex to Volume 2, Tables B.15.a–B.15.g, for a complete description of targets' perceptions of workplace consequences.

Sexual harassment and gender discrimination are significant concerns to DoD not only due to the harm to individuals, but also due to the potential negative effect of these events on the retention of qualified and well-trained service members. Two out of every five service members who had been sexually harassed or discriminated against in the past year said that these events had made them "want to leave the military" (42 percent). Airmen who were sexually harassed or discriminated against were less likely to indicate that the experience made them want to leave the military (36 percent) relative to soldiers (43 percent) and Marines (51 percent). Senior officers (43 percent) were more likely than junior officers (33 percent) to want to leave the military following an experience of sexual harassment or gender discrimination.

In a separate section of the questionnaire, we asked all service members whether they were likely to choose to remain on active duty (assuming they had this decision to make) using a standard question assessing retention intentions. There were notable differences between service members who had experienced sexual harassment or gender discrimination in the past year relative and those who had not (Table 4.9). For

**Table 4.9**
**Self-Reported Likelihood of Choosing to Stay on Active Duty Among Service Members Who Had Experienced Sexual Harassment, Gender Discrimination, or Neither in the Past Year**

| Self-Reported Likelihood of Choosing to Stay on Active Duty | No MEO Violation (Men/Women) | Sexual Harassment (Men/Women) | Gender Discrimination (Men/Women) |
|---|---|---|---|
| Very likely | 43% / 40% | 22% / 24% | 22% / 23% |
| Likely | 21% / 24% | 19% / 22% | 26% / 17% |
| Neither likely nor unlikely | 14% / 15% | 16% / 17% | 14% / 19% |
| Unlikely | 9% / 10% | 11% / 14% | 11% / 14% |
| Very unlikely | 12% / 11% | 33% / 23% | 27% / 27% |

example, among women who had not been targeted, only 11 percent indicated that it was "very unlikely" that they would choose to stay on active duty. Among women who had experienced sexual harassment or gender discrimination in the past year, this percentage rose to 23 percent and 27 percent (respectively) who indicated they were "very unlikely" to stay on active duty. For men, the pattern of results is similar, though the apparent effect of sexual harassment on their intentions to reenlist is even more pronounced. Longitudinal studies of service members' responses to sexual harassment and discrimination would be a helpful adjunct to these data to determine the precise impact of these events on military retention. However, even the current self-report data suggest that retention of qualified service members may be negatively affected by violations of workplace professionalism.

### Disclosure and Reports of Sexual Harassment or Gender Discrimination

Nearly one-third of men (30 percent) who were targets of harassment or discrimination chose not to tell anyone about their experiences. One-half as many women (15 percent) chose to keep the events entirely to themselves. Thirty-seven percent of men and 39 percent of women disclosed the events only to friends, family, a chaplain, counselor, or medical person (i.e., only to those not formally tasked with investigating or responding to the events).

We identified three types of personnel who are formally required to intervene in order to stop sexual harassment or gender discrimination when notified of the problem: a work supervisor, someone up the chain of command, or anyone tasked with enforcing MEO regulations. In the sections that follow we refer to notifying one of these classes of people as "reporting sexual harassment or gender discrimination." We recognize that many of these "reports" can be appropriately handled without generating any official documentation of an allegation of sexual harassment or gender discrimination.

Overall, 38 percent of those who experienced sexual harassment or gender discrimination reported it (i.e., notified someone of the problem who had the authority and obligation to respond). Reporting was more common among targets who were women (46 percent) than men (33 percent). Thus the majority of service members who experienced sexual harassment or gender discrimination did not notify one of these responsible parties of the problem. It was substantially more common for targets to notify their work supervisor or someone up their chain of command (37 percent), than to notify an official specifically tasked with enforcement of MEO violations (11 percent). Only 1 percent of targets notified an MEO official without also discussing the problem with a supervisor or someone in their chain of command. Thus the subsequent results documenting the military response to reports of sexual harassment and gender discrimination are primarily characterizing the responses of work supervisors who were notified of a problem. See the Annex to Volume 2, Tables B.16.a–B.16.g, for additional details.

Among targets who reported the problem, we assessed a variety of responses that may have been implemented by actors in the system. Table 4.10 summarizes those responses, and the Annex to Volume 2, Tables B.17.a–B.17.g, provides further detail. Many respondents described responses to their disclosure that are consistent with appropriate and allowable responses for military supervisors, unit leaders, and those tasked with enforcing MEO regulations. These included responses such as someone explaining the rules about sexual harassment to everyone in the workplace (65 percent) and someone speaking with the offender(s) to ask them to change their behavior (43 percent).

However, it was also common for service members to indicate a response to their disclosure that was not consistent with the leader or supervisors' obligation to respond to MEO reports. Forty-four percent of targets indicated that they had been encouraged to drop the issue, and 41 percent said the person to whom they reported the events took no action (despite being in a work role required by DoD policies to take action to address the problem).

In addition, 31 percent of targets who reported the problem said that the offender(s) retaliated against them for complaining. In fact, a considerable minority of targets also reported experiencing retaliation from coworkers (31 percent) or their supervisor (21 percent).

There were gender differences in how supervisors responded to these reported problems. Women were more likely than men to indicate that someone talked to the offender(s) to ask them to change their behaviors (49 percent versus 39 percent, respectively), their work station was changed to help them avoid the offender(s) (24 percent versus 17 percent), and that the offender(s) stopped their upsetting behavior (32 percent versus 24 percent). Although most targets of either gender did not experience these proactive responses to their reports of a problem, the gender differences suggest that men may have even greater difficulty than women getting supervisors to take action to

**Table 4.10**
**Action Taken in Response to Service Member Reporting Sexual Harassment or Gender Discrimination to a Supervisor, Leader, or Official**

| | Total | Men | Women |
|---|---|---|---|
| The rules on harassment were explained to everyone in the workplace. | 65% | 65% | 64% |
| You were encouraged to drop the issue. | 44% | 50% | 37% |
| Someone talked to the [person/people] to ask them to change their behavior. | 43% | 39% | 49% |
| The person you told took no action. | 41% | 44% | 38% |
| The [person/people] who did this retaliated against you for complaining. For example, their upsetting behavior became worse or they threatened you. | 31% | 34% | 28% |
| Your coworkers treated you worse, avoided you, or blamed you for the problem. | 31% | 31% | 31% |
| You were discouraged from filing a formal complaint. | 30% | 33% | 27% |
| No action was taken because you asked for the discussion to be kept private. | 28% | 27% | 28% |
| The [person/people] stopped their upsetting behavior. | 27% | 24% | 32% |
| Your supervisor punished you for bringing it up (e.g., loss of privileges, denied promotion/training, transferred to less favorable job). | 21% | 22% | 19% |
| Your work station or duties were changed to help you avoid [that person/those people]. | 20% | 17% | 24% |
| The [person was, people were] moved or reassigned so that you did not have as much contact with them. | 16% | 14% | 18% |
| You discussed the situation, but no action was taken because you chose not to give enough details about the situation. | 15% | 15% | 14% |
| There was some official career action taken against [the person/the people] for their upsetting behavior (for example, a negative evaluation/fitness report). | 11% | 10% | 12% |

stop the harassment. Indeed, 50 percent of male targets were encouraged to drop the issue after they reported it (as compared to 37 percent of female targets).

All survey respondents who experienced sexual harassment or gender discrimination, and who notified a supervisor, leader, or MEO official of the problem, were asked about their satisfaction with a variety of aspects of the reporting process and the response (see Table 4.11). Approximately one-third of service members who reported sexual harassment or gender discrimination were satisfied with how they were treated by personnel handing the situation; one-third were neither dissatisfied nor satisfied; and one-third were dissatisfied. Twenty-seven percent were satisfied with the action

**Table 4.11**
**Satisfaction with Response to Report of Sexual Harassment or Gender Discrimination**

| How satisfied were/are you with the following aspects of how the discussion or report was handled? | 1 Very dissatisfied | 2 Dissatisfied | 3 Neither | 4 Satisfied | 5 Very satisfied | Mean (SE) |
|---|---|---|---|---|---|---|
| Availability of information about how to file a complaint | 12.07% (9.48–15.08) | 12.25% (9.91–14.91) | 33.58% (30.32–36.96) | 28.77% (25.83–31.86) | 13.33% (11.50–15.34) | 3.19 (0.04) |
| How you were treated by personnel handling your situation | 17.18% (14.85–19.70) | 20.56% (17.28–24.15) | 30.69% (27.65–33.87) | 19.75% (17.28–22.39) | 11.83% (9.79–14.12) | 2.88 (0.04) |
| The action taken by the personnel handling your situation | 20.81% (18.21–23.60) | 20.04% (16.99–23.36) | 32.15% (28.95–35.49) | 16.81% (14.57–19.25) | 10.18% (8.22–12.44) | 2.76 (0.04) |
| The current status of the situation | 22.31% (19.12–25.77) | 17.49% (15.00–20.21) | 35.01% (31.84–38.29) | 15.76% (13.68–18.02) | 9.43% (7.38–11.82) | 2.73 (0.05) |
| Amount of time it took to address your situation | 23.28% (20.29–26.47) | 18.68% (15.97–21.64) | 34.01% (30.73–37.42) | 14.93% (13.00–17.01) | 9.10% (7.17–11.35) | 2.68 (0.04) |
| Availability of information or updates on the status of your report or complaint | 20.25% (17.26–23.51) | 12.84% (10.69–15.25) | 47.23% (43.74–50.71) | 12.95% (10.97–15.13) | 6.75% (5.52–8.15) | 2.73 (0.04) |

NOTE: In the columns numbered 1–5, 95-percent confidence intervals for each estimate are indicated in parentheses. SE = standard error.

that was taken in response to their report (32 percent were neither dissatisfied nor satisfied and 41 percent were dissatisfied). Across satisfaction items, there appears to be room for improvement with respect to service members' experiences with the system response to MEO violations. Although many respondents were actively satisfied with how their report was handled, a substantial minority expressed dissatisfaction with how they were treated and kept informed and with the action taken in response to their report of an MEO problem. In the Annex to Volume 2, Tables B.18.a–B.18.g provide additional information about targets' satisfaction with the response to their report by gender, by service, and by pay grade.

### *Barriers to Reporting Sexual Harassment and Gender Discrimination*

As noted above, 67 percent of men and 54 percent of women who experienced sexual harassment or gender discrimination in the past year did not report the violation(s) to someone with the authority to respond. For service members who did not report the problem to someone with the authority to respond, we asked them about their reasons for not doing so. Their responses were varied (as summarized in Table 4.12 and further detailed in the Annex to Volume 2, Tables B.19.a–B.19.g). Many service members minimized the severity of the violation (49 percent). This minimization is notable given that all service members who completed this section of the questionnaire

**Table 4.12**
**Barriers to Reporting Sexual Harassment and Gender Discrimination**

| | Total | Men | Women |
|---|---|---|---|
| Minimizing event | | | |
| You thought it was not serious enough to report. | 49% | 48% | 50% |
| You thought a supervisor would make too big of a deal out of it. | 34% | 34% | 32% |
| You felt partially to blame. | 10% | 8% | 14% |
| Worried about retaliation | | | |
| You thought you might be labeled as a troublemaker. | 29% | 28% | 30% |
| You were worried about retaliation by the person(s) who did it. | 29% | 28% | 31% |
| You thought it might hurt your career. | 28% | 26% | 33% |
| You were worried about retaliation by your military co-workers or peers. | 24% | 23% | 27% |
| You were worried about retaliation by supervisor or someone in your chain of command. | 24% | 24% | 23% |
| You thought it might hurt your performance evaluation/fitness report. | 22% | 21% | 24% |
| You thought you might get in trouble for something you did. | 15% | 16% | 13% |
| Concerns about perception | | | |
| You did not want people to see you as weak. | 34% | 33% | 36% |
| You did not want more people to know. | 26% | 23% | 32% |
| You thought other people would blame you. | 21% | 19% | 25% |
| You did not want people to think you were gay/lesbian/bisexual/transgender. | 9% | 12% | 3% |
| You handled it another way or it didn't need to be handled. | | | |
| You took other actions to handle the situation. | 37% | 37% | 37% |
| The offensive behavior stopped on its own. | 36% | 35% | 38% |
| Someone else already reported it. | 4% | 4% | 3% |
| Concerns about process | | | |
| You did not think anything would be done. | 44% | 45% | 43% |
| You did not trust the process would be fair. | 33% | 32% | 34% |
| You did not think you would be believed. | 17% | 16% | 18% |
| Other | | | |
| You wanted to forget about it and move on. | 52% | 51% | 53% |
| You did not want to hurt the person's career or family. | 24% | 21% | 29% |
| You did not know how to report it. | 6% | 7% | 4% |
| Someone told you not to report it. | 3% | 4% | 2% |

NOTE: Respondents selected all relevant barriers; therefore, percentages sum to over 100 percent.

had been through a complex screening process that established that their experiences would likely meet DoD definitions of an MEO violation. Approximately one-quarter of targets who did not report their sexual harassment or gender discrimination experiences were worried about retaliation from the offender(s) (29 percent), their coworkers (24 percent), or their supervisor or someone up their chain of command (24 percent). Thirty-four percent worried that the events would be stigmatizing (e.g., others would see them as weak). Approximately one-third of targets who did not report the events chose not to report because they handled the situation in some other way (37 percent) or the behavior stopped on its own (36 percent). Finally, some service members did not trust that anything would be done in response to their report (44 percent), and many simply wanted to forget about the events and move on (52 percent).

There were some gender differences in barriers to reporting. Relative to male targets, women were more likely to be worried about hurting the offender's career or family (21 percent versus 29 percent), to not want more people to know (23 percent versus 32 percent), and to feel partially to blame (8 percent versus 14 percent). However, women were less likely to be worried that people would think they were lesbian, gay, bisexual, or transgender (LGBT) if they reported the sexual harassment or gender discrimination (12 percent versus 3 percent).

## Summary

We estimate that 26 percent of active-component military women and 7 percent of men experienced sexual harassment or gender discrimination in the past year. Nearly all of the events described by service members were events over which DoD has jurisdiction, and very often, the situation reflected a misuse of power by people of higher rank or in a supervisory role. Findings suggest that productivity and unit cohesion may be damaged by these violations of professionalism in the workplace. Not all targets chose to report the events to someone with the authority and obligation to act on the report, but among those who did, the responses were varied. Some targets had outcomes that are consistent with appropriate and allowable responses for military leaders (e.g., someone talked to the person who did it to ask them to change their behavior), whereas others had outcomes that may not be consistent with the leader's obligation to respond (e.g., targets were encouraged to drop the issue or no action was taken). In the latter case, military leaders may have concluded that no violation occurred. Significant barriers to reporting remain in place, including minimization of the event, worries about retaliation, and concern about being stigmatized for reporting. Although DoD has been taking steps to reduce the rate of these events and to mitigate the negative outcomes for targets who choose to come forward, the results of this survey suggest that there remains room for substantial improvement.

CHAPTER FIVE

# Beliefs About Sexual Assault and Sexual Harassment Prevalence, Prevention, and Progress

*Kristie L. Gore, Kayla M. Williams, and Bonnie Ghosh-Dastidar*

The long form of the 2014 RMWS assessed beliefs and attitudes toward safety, perceived frequency of MEO violations and sexual assault, attitudes toward reporting, perceptions of unit leadership, satisfaction with sexual assault prevention training, and expectations for justice following sexual harassment or a sexual assault. These questions were asked only of the active-component sample. What follows is a description of the reported beliefs and attitudes held by different subgroups.[1] Additional descriptive details can be found in the Annex to Volume 2.

## Perceptions of Safety

Most active-component service members report feeling "safe" or "very safe" from being sexually assaulted at their home station (approximately 94 percent), but there are significant gender differences: 95 percent of men versus 83 percent of women (see Table 5.1). As shown in Table 5.2, members of the Air Force report greater perceived safety relative to the other services. See the Annex to Volume 2, Tables C.1.c–C.1.g, for additional details.

Perceptions of safety from being sexually assaulted during military operations, training, or exercises away from the home duty station show a similar pattern, but service members tend to report slightly lower perceived safety away from home station. As shown in Table 5.3, 94 percent of men but only 73 percent of women report feeling "safe" or "very safe" in this context. Again, members of the Air Force tend to indicate slightly higher perceptions of safety compared to the other services (Table 5.4). See the Annex to Volume 2, Tables C.2.c–C.2.g, for additional details by service and pay grade.

## Perceptions of the Frequency of Sexual Harassment and Gender Discrimination

A significantly higher proportion of women than men reported that sexual harassment and gender discrimination are common in the military (see the Annex to Volume 2,

**Table 5.1**
**Perception of Safety at Home Duty Station, Estimated Percentages by Gender**

| | Total | Men | Women |
|---|---|---|---|
| Very safe | 73.81% (72.47–75.12) | 78.28% (76.70–79.79) | 48.29% (46.96–49.63) |
| Safe | 19.65% (18.46–20.87) | 16.99% (15.62–18.43) | 34.84% (33.55–36.14) |
| Neither safe nor unsafe | 5.06% (4.47–5.71) | 3.49% (2.84–4.25) | 14.00% (13.00–15.05) |
| Unsafe | 0.75% (0.47–1.15) | 0.56% (0.25–1.07) | 1.87% (1.47–2.36) |
| Very unsafe | 0.73% (0.48–1.07) | 0.68% (0.40–1.10) | 0.99% (0.71–1.34) |

". . . Feeling safe from being sexually assaulted at your home duty station"

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

**Table 5.2**
**Perception of Safety at Home Duty Station, Estimated Percentages by Service**

| | Total | Army | Navy | Air Force | Marine Corps |
|---|---|---|---|---|---|
| Very safe | 73.81% (72.47–75.12) | 70.37% (68.15–72.51) | 73.96% (70.98–76.78) | 81.66% (80.40–82.87) | 69.85% (64.73–74.63) |
| Safe | 19.65% (18.46–20.87) | 22.31% (20.33–24.39) | 20.30% (17.71–23.08) | 14.15% (13.13–15.23) | 20.48% (16.29–25.19) |
| Neither safe nor unsafe | 5.06% (4.47–5.71) | 5.40% (4.49–6.44) | 4.88% (3.86–6.08) | 3.67% (2.98–4.48) | 6.73% (4.32–9.91) |
| Unsafe | 0.75% (0.47–1.15) | 1.10% (0.62–1.82) | 0.42% (0.19–0.81) | 0.17% (0.08–0.31) | 1.33% (0.24–4.10) |
| Very unsafe | 0.73% (0.48–1.07) | 0.82% (0.52–1.22) | 0.44% (0.19–0.87) | 0.34% (0.19–0.56) | 1.61% (0.40–4.28) |

". . . Feeling safe from being sexually assaulted at your home duty station"

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

Tables C.3.a and C.4.a). In fact, 77 percent of women reported that sexual harassment is either "common" or "very common" (versus 45 percent of men), and 69 percent of women reported that discrimination against women is either "common" or "very common" in the military (versus 34 percent of men). Consistent with the prevalence of sexual harassment and gender discrimination across services, members of the Air Force rate these violations as less common than other service members do (see the Annex to Volume 2, Tables C.3.b–C.4.g, for additional details by service and pay grade).

**Table 5.3**
**Perception of Safety Away from Home Duty Station, Estimated Percentages by Gender**

| | Total | Men | Women |
|---|---|---|---|
| Very safe | 68.87% (67.54–70.17) | 75.21% (73.68–76.70) | 32.63% (31.41–33.87) |
| Safe | 22.18% (21.03–23.36) | 18.96% (17.64–20.33) | 40.60% (39.28–41.93) |
| Neither safe nor unsafe | 7.20% (6.51–7.93) | 4.69% (3.93–5.55) | 21.53% (20.39–22.70) |
| Unsafe | 1.08% (0.87–1.33) | 0.55% (0.33–0.85) | 4.13% (3.60–4.71) |
| Very unsafe | 0.68% (0.43–1.02) | 0.60% (0.32–1.02) | 1.12% (0.82–1.48) |

". . . Feeling safe from being sexually assaulted during military operations, training, or exercises away from your home duty station"

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

**Table 5.4**
**Perception of Safety Away from Home Duty Station, Estimated Percentages by Service**

| | Total | Army | Navy | Air Force | Marine Corps |
|---|---|---|---|---|---|
| Very safe | 68.87% (67.54–70.17) | 66.93% (64.73–69.07) | 66.86% (63.65–69.96) | 73.06% (71.68–74.42) | 70.50% (65.79–74.92) |
| Safe | 22.18% (21.03–23.36) | 23.73% (21.79–25.75) | 24.07% (21.35–26.96) | 19.29% (18.14–20.48) | 19.62% (16.00–23.67) |
| Neither safe nor unsafe | 7.20% (6.51–7.93) | 7.11% (6.08–8.26) | 7.76% (6.39–9.31) | 6.49% (5.68–7.38) | 7.65% (5.00–11.11) |
| Unsafe | 1.08% (0.87–1.33) | 1.58% (1.12–2.17) | 0.81% (0.50–1.24) | 0.86% (0.64–1.12) | 0.55% (0.24–1.09) |
| Very unsafe | 0.68% (0.43–1.02) | 0.65% (0.38–1.02) | 0.50% (0.23–0.96) | 0.29% (0.16–0.49) | 1.67% (0.43–4.33) |

". . . Feeling safe from being sexually assaulted during military operations, training, or exercises away from your home duty station"

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

## Attitudes and Expectations for Justice

Eighty-one percent of service members reported it was "likely" or "very likely" that a sexual assault perpetrator would be held accountable or punished (see the Annex to Volume 2, Table C.9.a). Women have lower expectations for justice than men overall. For example, women are more likely than men to believe that instances of both sexual harassment and sexual assault go unreported and that the perpetrator of sexual assault

would not be held accountable. There are few differences across the services on these survey items (see the Annex to Volume 2, Tables C.5.a–C.9.g, for details).

## Likelihood of Reporting Behaviors and Taking Action

Members from different services do not differ in their perceived likelihood of taking some action to report sexual harassment or assault if they were aware of it. A lower percentage of women (49.9 percent) than men (63.1 percent) indicated they were "very likely" to report sexual harassment to a supervisor (see the Annex to Volume 2, Table C.10.a). Similarly, a lower percentage of women (60.7 percent) than men (68.7 percent) indicated they were "very likely" to report a sexual assault if it were to happen to them. This gender difference is not consistent either with Sexual Assault Prevention and Response Office (SAPRO) data on rates of official reports of sexual assault (U.S. Department of Defense, 2014) or with RMWS survey data on the proportion of sexual assaults that are reported to authorities. Both types of data indicate that men are significantly less likely than women to report sexual assaults.

Almost all service members indicated being "likely" or "very likely" to encourage someone who experienced sexual assault both to report it (93.5 percent) and to seek counseling (93.9 percent). There were no service or gender differences in those survey items. A greater proportion of service members indicated they were "very likely" to encourage someone else who experienced sexual harassment to report it (71.3 percent) than they were to report it if it happened to them (61.1 percent). The same is true for reporting sexual assault (77.7 percent versus 67.5 percent saying "very likely"). This apparent "double-standard" may serve as a barrier to reporting. See the Annex to Volume 2, Tables C.10.b–C.10.g, for additional details.

In addition to asking whether service members are likely to report or encourage reporting, the 2014 RMWS also asked about actual cases of bystander intervention, which has been a focus of training. Almost 90 percent of service members "agreed" or "strongly agreed" that their sexual assault training taught them about bystander intervention (see the Annex to Volume 2, Table C.15.a). Of the 7 percent reporting they had observed a situation that was or could have led to a sexual assault (6 percent of men and 11 percent of women; see the Annex to Volume 2, Tables C.11.a–C.11.g), most (86.8 percent) service members reported intervening in some way. In the Annex to Volume 2, Tables C.12.a–C.12.g list the estimated percentage of service members who reported each behavioral response and provide details by gender, service, and pay grade.

## Perceptions of Unit Leadership

The large majority of service members reported that their leadership promotes a climate of respect and trust, and makes clear there is no place for sexual assault in the military. A small percentage of service members (5.5 percent of men and 8 percent of women; see the Annex to Volume 2, Table C.13.a) reported their leadership is not fostering a culture of respect and trust. Overall, women tended to rate unit leadership slightly lower than men did, and the Air Force rates their unit leadership higher on these variables compared to the other services (see the Annex to Volume 2, Tables C.13.b–C.13.g).

## Beliefs About Personal Responsibility for Others and Trust in the Military System

If a sexual assault were to occur, women report having less trust than men in the military system protecting their privacy (22.3 percent versus 38.4 percent saying "strongly agree"), ensuring their safety (26.0 percent versus 43.6 percent), and treating them with dignity and respect (25.5 percent versus 42.8 percent) (see the Annex to Volume 2, Table C.17.a). There are no significant service differences in these ratings. Most service members (91 percent "agree" or "strongly agree") report feeling a sense of duty to take action in a social situation to stop a fellow service member at risk. See the Annex to Volume 2, Tables C.17.b–C.17.g, for details by service and pay grade.

## Perceptions of Progress

Service members offer a range of opinions about whether sexual harassment and assault have become more of a problem or less of a problem in the military (or in the nation) in the past two years. More than twice as many men (18 percent) as women (8 percent) thought sexual assault in the nation was "less of a problem today" than two years ago. Similarly, almost twice as many men than women (31 percent and 16 percent, respectively) reported sexual assault in the military was "less of a problem today" than two years ago (see the Annex to Volume 2, Tables C.18.a–C.18.g, for details).

## Perceptions of Sexual Assault and Sexual Harassment Training

Ninety-eight percent of the service members who responded to the section on SAPR training indicated they had some training related to sexual assault topics in the past 12 months (see the Annex to Volume 2, Tables C.14.a–C.14.g). Between just 2 and 3 percent of active-component respondents reported that any of the listed topics were not covered (see the Annex to Volume 2, Tables C.15.a–C.15.g). Similarly, 97 percent

of service members indicated they had some training on topics related to sexual harassment in the past 12 months (see the Annex to Volume 2, Tables C.16.a–C.16.g).

## Conclusion

Generally, beliefs and attitudes toward risks for sexual harassment and assault were consistent with actual risk. For example, women report feeling less safe than men and members of the Air Force report greater perceived safety than members of other services. Those at greatest risk for sexual harassment and gender discrimination view them as more common than those with lower risk. These attitudes and beliefs can be associated with the likelihood of taking action—such as reporting sexual harassment or sexual assault or encouraging someone else to report it—so they are potential intervention targets. In addition, some of these measures of perceived risk or attitudes may serve as useful indicators of the current military climate with respect to sexual assault, sexual harassment, and gender discrimination.

CHAPTER SIX

# Branch of Service Differences in the Rates of Sexual Assault and Sexual Harassment

*Terry L. Schell and Andrew R. Morral*

Service differences in rates of sexual assault and sexual harassment violations follow broadly similar patterns for active-component men and women.[1] Specifically, Air Force men and women experience lower rates of past-year sexual assault and harassment than members of each of the other DoD services. These differences are statistically significant, and some are descriptively large. For instance, Army, Navy, and Marine Corps men are between 3.3 and 5.1 times as likely to likely to have experienced a past-year sexual assault relative to Air Force men. Similarly, Army, Navy, and Marine Corps women are between 1.6 and 2.7 times as likely to have experienced a past-year sexual assault relative to Air Force women. Moreover, this pattern is not new. Since 2006, each of the WGRA surveys has found similar service differences on measures of unwanted sexual contact and the WGRA measure of sexual harassment.

The magnitude and stability of these differences raise questions about the characteristics of each service that can explain their substantially differing rates of sexual assault and harassment. In this chapter, we explore the possible influence of three types of service differences in explaining the differing risk for sexual assault and harassment. We refer to these classes as *demographic* factors, *military experience* factors, and *military environment* factors. The primary purpose of this analysis is to assess whether demographic differences or differences in deployment experiences account for service differences in sexual assault and harassment risk. These factors have been raised by military leaders and policymakers as possible explanations of service differences. In addition, we include several factors, referred to as *military environment* factors, that we know to be associated with risk for these outcomes based on either our prior statistical analyses (deriving the RMWS sampling weights) or the scientific literature.

- Demographic factors such as age, gender, marital status, ethnicity, qualification test scores, and education level are all associated with sexual assault risk in the military population. To the extent that members of each service differ on these characteristics, this could drive observed differences in risk across services.
- If demographic characteristics—most of which are determined before members join the service—cannot explain service differences in risk, we next consider dif-

ferences between members conferred on them by the military. For instance, the military assigns people to different pay grades, it deploys people to combat zones, and retains them in the military for varying lengths of time.
- If neither the demographic nor the military experience factors explain differences in service risks, we consider a range of military environment variables found to be correlated with sexual assault or harassment risk. These factors include the size of the facility to which the member is assigned and the proportions of the members' unit, installation, and occupational group that are male.

There are, of course, many other differences between services that might be associated with differences in sexual assault risk. There may be cultural, policy, training, or other differences across services that explain the observed differences in risk. For example, services could differ in their tolerance of harassment or abuse, in the rigor with which they prosecute offensive or abusive conduct, or in the effectiveness of their sexual assault and sexual harassment training programs. In each case, we might expect such differences to result in service differences in prevalence of sexual assault and sexual harassment. In this chapter, however, we consider only those factors made available to us through the Defense Manpower Data Center's (DMDC's) administrative data.

To evaluate the possible influence of these factors, we conducted a series of analyses on our large active-component sample designed to evaluate the extent to which the observed differences among services in the prevalence of sexual assault or harassment could be explained by the demographic characteristics, military experience, or military environment differences across services.

We have demographic and military characteristics from DMDC records capturing most such factors known to be associated with sexual assault or harassment. This includes all of the major demographic risk factors for sexual assault that have been identified in prior research on civilian and military samples, with the exception of sexual orientation. We also have measures of military environment derived from the characteristics of other service members in the same occupational codes, assigned units, and assigned military installations. These environment variables were found to be associated with risk in earlier statistical models and have been identified in the scientific literature as risk factors for sexual assault or harassment. However, we have no individual-level administrative data that capture cultural or policy differences between services. Data on cultural and policy differences would be valuable in future analyses of service differences. Table 6.1 describes the factors derived from DMDC administrative data that were included in our models.

To evaluate the effects of these variables on observed service differences, we model the relative risk ratios for sexual assault and sexual harassment for each service in comparison with the Air Force (Table 6.2). Relative risk ratios describe the ratio of the probability of one group having some experience (such as a past-year sexual assault) to that of another. For instance, the probability that a woman in the Marine Corps

**Table 6.1**
**Variables Considered as Possibly Explaining Service Differences in the Rate of Sexual Assault and Sexual Harassment**

| Variables | Description |
|---|---|
| Demographic factors | |
| Gender | Men versus women |
| Age | Age in years |
| Entry age | Age when joined service |
| Race | Indicators for Black, White, Hispanic, Asian, Other |
| Single | Indicator for single versus married |
| Education | Indicators for four levels of education: high school diploma or less, college without baccalaureate degree, baccalaureate degree, advanced degree |
| AFQT | Armed Forces Qualification Test score (enlisted only) |
| Dependents | Number of dependents |
| Military experiences factors | |
| Months deployed (since 7/1/13) | Months of hazardous-duty pay in the prior year |
| Deployed (since 9/11/01) | Months of hazardous-duty pay during career since 9/11/01 |
| Pay grade | Seven pay-grade categories (E1–E3, E4, E5–E6, E7–E9, W1–W5, O1–O3, O4–O6) |
| AFMS | Career active federal military service (in months) |
| Military environment factors | |
| Occupation male (%) | The proportion of respondent's DoD occupational group who are men |
| Installation male (%) | The proportion of respondent's assigned installation/ship who are men |
| Unit male (%) | The proportion of respondent's assigned unit who are men |
| Installation size | The number of active duty members assigned to respondents' installation/ship |

experienced a sexual assault in the past year is, according to our RMWS results, about 0.0786. The probability that a woman in the Air Force had such an experience is 0.0290. Therefore, the unadjusted relative risk ratio (0.0786/0.0290) is about 2.71, which can be interpreted as indicating that women in the Marine Corps are 2.71 times as likely as those in the Air Force to have experienced a sexual assault in the past year.

The choice of using the Air Force to serve as the comparison group has no effect on which risk ratios are significantly different from one another. Any service branch

**Table 6.2**
**Adjusted and Unadjusted Risk for Sexual Assault Relative to Air Force Personnel, by Service and Gender**

| Gender | Service | Unadjusted Risk Ratio Model 1 | Adjusted Risk Ratio Model 2: Demographics | Adjusted Risk Ratio Model 3: Demographics, Mil. Experience | Adjusted Risk Ratio Model 4: Demographics, Mil. Experience, Mil. Environment |
|---|---|---|---|---|---|
| Women | | | | | |
| | Air Force | 1 | 1 | 1 | 1 |
| | Army | 1.61 (1.44–1.81) | 1.83 (1.62–2.06) | 1.83 (1.61–2.08) | 1.77 (1.55–2.03) |
| | Navy | 2.23 (1.95–2.55) | 1.83 (1.60–2.11) | 1.82 (1.59–2.10) | 1.75 (1.52–2.02) |
| | Marine Corps | 2.71 (2.26–3.24) | 2.05 (1.71–2.46) | 2.06 (1.71–2.47) | 1.71 (1.39–2.10) |
| Men | | | | | |
| | Air Force | 1 | 1 | 1 | 1 |
| | Army | 3.26 (2.19–4.87) | 3.38 (2.23–5.13) | 3.67 (2.33–5.76) | 4.18 (2.60–6.73) |
| | Navy | 5.11 (3.19–8.18) | 4.77 (2.91–7.83) | 4.89 (3.01–7.93) | 5.16 (3.13–8.52) |
| | Marine Corps | 3.91 (2.19–6.96) | 3.44 (2.02–5.87) | 3.51 (2.07–5.95) | 4.36 (2.59–7.35) |

NOTE: The risk ratio is the risk of sexual assault in each service relative to the risk to Air Force personnel. 95-percent confidence intervals for each estimate are included in parentheses.

could serve as the comparison group and the model results would be similar to those in Table 6.2 except the numbers would be divided by some constant.

In additional to producing unadjusted relative risk ratios, the regression model can estimate an adjusted relative risk ratio that controls for the association of covariates with the outcome.[2] To the extent that differences in the risk for sexual assault between the Air Force other services can be explained by the covariates in the model, their relative risk ratios would move toward 1.0 in these models. For example, if the risk ratio for women in the Marine Corps relative to the Air Force goes from 2.71 (unadjusted) to 1.00 after adjusting for demographic factors, this implies that the differences in prevalence across those services can be fully explained by demographic differences between the Air Force and the Marine Corps. In contrast, if the risk ratio grows larger when controlling for demographic factors, it would indicate that the Air Force rates were low in spite of (rather than because of) the demographic characteristics that put service members at risk.

The three classes of covariates are entered in a specific order. The first adjustment is for demographic factors that largely pre-date a service member's military service or are

outside the direct control of the services. The second adjustment adds military experience covariates to the demographic factors; the military experience factors relate to the services' personnel structure and mission. The final adjustment adds to the covariates measures that assess the military environment, which is primarily determined by the gender balance (or gender segregation) of the members' occupation, unit, and installation. This is entered separately from military experience variables largely because these factors may be the result of service policies regarding the integration of women, and thus may be more directly under a service's control.

The column labeled Model 1 in Table 6.2 displays each service's unadjusted risk ratio for sexual assault in comparison with the Air Force. Each of these rates for men and women is significantly greater than a risk ratio of 1.0, indicating higher risk for sexual assault for both men and women in those services than for those in the Air Force. This can be seen in the 95-percent confidence intervals for Army, Navy, and Marine Corps estimates, which do not include 1. As discussed previously in the top-line report (NDRI, 2014), there are also differences among the Army, Navy, and Marine Corps in their unadjusted risk for sexual assault. The Army has significantly lower unadjusted risk than the Navy for both men and women, and it is significantly lower than the Marine Corps for women, but not men. Risks for Navy men and women do not differ significantly from risks to Marine Corps men and women. No other service comparisons are significant.

Model 2 provides risk ratios comparing each service relative to the Air Force while adjusting for demographic characteristics. The risk ratios are all significantly greater than 1.0 (the rate in the Air Force); however, the difference among the Army, Navy, and Marine Corps are reduced in comparison to the unadjusted risk ratios. That is, the lower sexual assault risk for Air Force men and women is not fully explained by the fact that they are older or exhibit other demographic differences in comparison with the other services. Interestingly, however, demographic differences do seem to explain the other differences between services. That is, after adjusting for demographic factors, no significant differences in risk remain between the Army, Navy, and Marine Corps. It appears, therefore, that the apparent differences in risk between services is well-explained by demographic factors, with the exception of the low rates in the Air Force.

Model 3 adds military experience variables to the demographic factors. However, these variables appear to affect the risk ratios only minimally while controlling for the demographic characteristics, and do not explain the differences between each service and the Air Force.

Finally, Model 4 adds military environment factors to all the previously included variables, and differences in risk of past-year sexual assault remain. Risk for Air Force personnel remains significantly lower than that found in the other services for men and women. In fact, for men, adjustment with all these factors results in slightly larger risk ratios than in the unadjusted Model 1 for each service. This means that Air Force men have a lower risk of sexual assault even though they, on average, have demographic

characteristics, military experiences, or military environments that are associated with sexual assault risk. In contrast, the differences in sexual assault risk among the Army, Navy, and Marine Corps are almost fully explained by the covariates in Model 4. The remaining service differences with the Air Force are descriptively large; men in the other services are 4 to 5 times more likely to experience a sexual assault than are airmen with comparable demographic characteristics, military experiences, and military environments. Said another way, if the Army, Navy, and Marine Corps reduced their rates of sexual assault for men and women to the rates observed in the Air Force, we project that there would be 9,000 service members sexually assaulted in the past year in DoD, rather than the 20,300 we currently estimate.

Table 6.3 presents comparable analyses of risk ratios for experiences of sexual harassment in the past year.[3] In the unadjusted Model 1 results, men and women in the Army, Navy, and Marine Corps are all at about twice the risk of sexual harassment as members of the Air Force. Additionally, among Army women, rates are significantly lower than the Navy and Marine Corps, and Navy men experience higher rates of

**Table 6.3**
**Adjusted and Unadjusted Risk for Sexual Harassment Relative to Air Force Personnel, by Service and Gender**

| Gender | Service | Unadjusted Risk Ratio Model 1 | Adjusted Risk Ratio Model 2: Demographics | Adjusted Risk Ratio Model 3: Demographics, Mil. Experience | Adjusted Risk Ratio Model 4: Demographics, Mil. Experience, Mil. Environment |
|---|---|---|---|---|---|
| Women | | | | | |
| | Air Force | 1 | 1 | 1 | 1 |
| | Army | 1.86 (1.74–1.98) | 2.02 (1.89–2.16) | 2.01 (1.87–2.16) | 1.93 (1.79–2.08) |
| | Navy | 2.24 (2.08–2.41) | 2.02 (1.88–2.18) | 2.04 (1.89–2.20) | 1.93 (1.79–2.08) |
| | Marine Corps | 2.20 (1.98–2.44) | 1.93 (1.73–2.15) | 1.97 (1.77–2.19) | 1.63 (1.44–1.83) |
| Men | | | | | |
| | Air Force | 1 | 1 | 1 | 1 |
| | Army | 2.33 (1.94–2.81) | 2.37 (1.96–2.86) | 2.46 (2.00–3.02) | 2.15 (1.73–2.68) |
| | Navy | 2.55 (2.05–3.17) | 2.38 (1.90–2.98) | 2.42 (1.95–3.00) | 2.28 (1.84–2.83) |
| | Marine Corps | 1.86 (1.41–2.45) | 1.64 (1.23–2.18) | 1.71 (1.29–2.28) | 1.33 (0.98–1.80) |

NOTE: The risk ratio is the risk of sexual assault in each service relative to the risk of Air Force personnel. 95-percent confidence intervals for each estimate are included in parentheses.

sexual harassment than Marine Corps men. No other service comparisons are statistically significantly different in Model 1.

Adjustment for demographic variables in Model 2 has only a small effect on each service's risk ratios relative to the Air Force, all of which remain close to a factor of 2. This adjustment does account for some of the difference between Army and Navy men. However, the adjusted risk ratio for Marine Corps men is now significantly lower than for either the Army or Navy. In other words, the apparent similarity in rates between Army men and Marine Corps men in the unadjusted model masked the fact that Marine Corps men have more demographic risk factors for sexual harassment than do Army men.

Adding military experience variables to the demographic variables has little effect on risk ratios, and the pattern of significant differences between services remains unchanged between Model 2 and Model 3. Therefore, differences between the Air Force and the other services are not explained by demographic factors or, for instance, differences in service tenure or months of deployment in the past year.

Adding the military environment variables to the list of covariates does slightly change the risk ratio for sexual harassment of Marine Corps men. These variables are primarily indicators of how "male" a service member's environment is based on their occupational group, unit, and installation composition. Because the Marine Corps has the lowest proportion of women among the services, and sexual harassment is more common in predominately male environments, adjusting for these covariates has the largest effect on the Marine Corps risk ratios. Indeed, for Marine Corps men, the inclusion of these variables results in an adjusted risk of sexual harassment that is not significantly different from that of Air Force men. The adjusted risk ratio for female Marines is still significantly higher than for comparable Air Force women, but the magnitude of this difference is about one-half the size of the unadjusted risk ratio. However, all other services show significantly higher risks of sexual harassment than the Air Force for both men and women. With these adjustments, Marine Corps men and women now have statistically significantly lower past-year sexual harassment risk than service members in either the Army or the Navy who are similar in terms of their demographic characteristics, military experiences, and military environment.

Looking across the sexual assault and sexual harassment analyses presented here, there is evidence that the members of each service differ in their risk factors for sexual assault and sexual harassment. Some of these service differences may be created by differing characteristics of the individuals who join the different services. For instance, the relatively high rates of past-year sexual assault experienced by Marine Corps women before adjustment are more similar to Navy and Army rates after accounting for the relative youth and other demographic risk factors on which Marines differ from their peers in those services.

In addition to these demographic differences in the members, the military environment differs across services. These differences appear to be important for sexual

harassment, with military environments that have fewer women showing higher rates of sexual harassment of both men and women. Thus sexual harassment in the Marine Corps looks relatively less common when controlling for the predominantly male occupations, units, and installations in which Marines work.

A second important result from these analyses is that the low rates of sexual assault and sexual harassment experienced by Air Force men and women are not generally attributable to the demographic and military variables included in Table 6.1 (with the exception of sexual harassment among Marine men). Indeed, differences in risk for sexual assault and harassment between the Air Force and the other services are not, on average, reduced when adjusting for the full range of factors. In contrast, many of the other differences between the branches of service—especially for sexual assault—can be explained by the included covariates.

These analyses advance our understanding of service differences in rates of sexual assault and harassment in that they generally do a good job of explaining differences between the Army, Navy, and Marine Corps, and they rule out many factors that have been cited to account for differences in risk faced by airmen in contrast to similar service members in other branches of service. This latter finding, however, begs a new question: If low Air Force rates relative to the rest of DoD are not attributable to differences in service member ages, educations, proportions of officers, proportions of men in work settings, months of service or past-year deployment, what does explain these differences?

While it is useful to identify several factors that *do not* explain the substantially lower risk experienced by Air Force personnel, research that identifies factors that *do* explain these differences would be valuable for guiding training, policy, and procedures. The current analyses used explanatory variables that were derived from personnel records (Table 6.1), but a broader range of data sources might identify other factors that can explain these service differences. These factors may include other member characteristics not reflected in DMDC data, or additional environmental variables, such as culture, training, policy, or programmatic differences between the Air Force and other services, that are also predictive of sexual assault and harassment. While such investigations are beyond the scope of the current report, the large dataset produced by this study may be a useful empirical platform for investigating such factors.

CHAPTER SEVEN

# Results Using the Prior WGRA Measures and Methods

*Andrew R. Morral, Kristie L. Gore, and Terry L. Schell*

## Prior Form (WGRA) Unwanted Sexual Contact Prevalence

For historical purposes, we compare results from the portion of the 2014 survey fielded using the prior WGRA form to the earlier WGRA results collected using the same survey questions and analyzed using comparable methods.

Figure 7.1 illustrates trends in past-year unwanted sexual contact measured using the WGRA methodology.[1] In 2012, 6.1 percent of active-component women were classified as having experienced unwanted sexual contact in the past year. In 2014 (Table 7.1), this number dropped to 4.3 percent, which is approximately the same as the percentage recorded in 2010 (4.4 percent) and significantly below the 2006 rate (6.8 percent).[2] Past-year unwanted sexual contact against men has not changed significantly over time, at 0.9 percent in 2014 compared with 1.2 percent in 2012, 0.9 percent in 2010, and 1.8 percent in 2006.

Using the WGRA method for estimating past-year unwanted sexual contact in 2014, we can infer with 95-percent confidence that the total number of active-component service members in the sample frame who experienced at least one unwanted sexual contact in the past year is between 16,200 and 21,900. Our best estimate in this range is that approximately 18,900 active-component service members experienced unwanted sexual contact in the past year, out of 1,317,561 active-component members.

Similar to findings using the RAND sexual assault measure, we estimate that more than one-half of the service members who experienced an unwanted sexual contact were men even though the risk of unwanted sexual contacts is much higher for women. Specifically, we estimated that 10,400 (95% CI: 7,900–13,400) male service members and 8,500 (95% CI: 7,700–9,400) female service members experienced an unwanted sexual contact in the past year.

In addition to looking at the rate at which service members experienced one or more incidents of unwanted sexual contact in the past year (i.e., the annual prevalence rate) it is also useful to look at the rate at which these incidents occur (i.e., the person-year incidence rate). These two rates differ because some victims experienced multiple incidents over the past year. We assessed the number of incidents in 2014 in the same manner as was used in 2012, and can directly compare incidence rates for those two

**Figure 7.1**
**Estimated Percentage of Active-Component Men and Women Who Experienced Unwanted Sexual Contact in the Past Year, as Measured in the WGRA, 2006–2014**


NOTE: 2006 estimates are for calendar year 2006. Estimates for 2010, 2012, and 2014 are for a time period closer to the fiscal year.

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**Table 7.1**
**Estimated Percentage of Active-Component Service Members Who Experienced Unwanted Sexual Contact in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 1.43% (1.23–1.66) | 0.93% (0.71–1.20) | 4.31% (3.89–4.76) |
| Army | 1.70% (1.29–2.19) | 1.24% (0.80–1.83) | 4.59% (3.90–5.37) |
| Navy | 1.79% (1.37–2.30) | 1.08% (0.64–1.71) | 5.11% (4.15–6.21) |
| Air Force | 0.78%[a] (0.62–0.97) | 0.43%[a] (0.26–0.66) | 2.28%[a] (1.89–2.72) |
| Marine Corps | 1.23% (0.81–1.80) | 0.66% (0.28–1.31) | 8.44%[a] (6.28–11.05) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different than the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

years.[3] We find that the overall rate in 2014 was 4.44 unwanted sexual contact incidents in the past year per 100 service members, which is significantly lower than in 2012, when there were 6.13 incidents per 100 service members. Thus, while the prevalence rate of unwanted sexual contact declined by 25 percent between 2012 and 2014, the incidence rate declined 28 percent over the same period.

We also investigated the differences in prevalence of unwanted sexual contact across services. In 2014, we estimate that Marine Corps women experienced past-year unwanted sexual contact at rates that are significantly higher than women from other services, as was also found in 2012. Similarly, as in 2012, members of the Air Force, both men and women, are estimated to have significantly lower rates of past-year unwanted sexual contact than their peers in other services.

Changes in the prevalence of unwanted sexual contact over time were also investigated within each branch of service. Among men, the 2014 rates are not statistically significantly lower than 2012, 2010, or 2006 rates for any service except for the Navy, which has a 2014 rate significantly lower than in 2012. Similarly, among women, these declines were not always statistically significant. For active-component women in the Army, 2014 estimated rates of unwanted sexual contact are lower than in 2012 and 2006, but not significantly lower than in 2010. For women in the Navy, estimated rates of unwanted sexual contact in the past year are significantly lower in 2014 than in 2012, but not significantly lower than was found in 2010 or 2006. For women in the Air Force, 2014 rates are lower than in 2006, but not significantly lower than in 2012 or 2010. For active-component Marine Corps women, 2014 rates of unwanted sexual contact are not significantly lower than in any of the prior years (2012, 2010, or 2006).

Because some service members may have experienced more than one unwanted sexual contact in the past year, prior-form respondents were asked to provide details on what happened during the "one event that had the greatest effect on you." Table 7.2 displays the distribution of types of unwanted sexual contact described as occurring in that "one event" among those respondents who experienced an unwanted sexual contact in the past year. The proportion of events involving sexual touching only, attempted penetrative assault, and completed penetrative assault is not significantly different from the same proportions reported in 2012, when 32.5 percent of all women classified as experiencing unwanted sexual contact indicated that the worst event consisted of sexual touching only, without penetration or attempted penetration; 26.4 percent indicated that it was attempted sexual intercourse, anal sex, or oral sex; and 31.4 percent indicated that it was completed sexual intercourse, anal sex, or oral sex. The percentage of men estimated to have experienced unwanted sexual contact also saw no significant changes between 2012 and 2014 in the distribution of types of contact experienced during the one event that had the "greatest effect." In 2012, 50.7 percent of men indicating a past-year unwanted sexual contact were classified as having a "one event" that involved sexual touching only; 5.2 percent involved attempted sexual intercourse, anal sex, or oral sex; and 9.8 percent involved completed sexual intercourse, anal sex, or oral sex.

**Table 7.2**
**Type of Unwanted Sexual Contact in Event That Had the Greatest Effect on the Service Member, by Gender**

| | Total | Men | Women |
|---|---|---|---|
| Unwanted sexual touching (only) | 40.67% (33.04–48.64) | 49.38% (36.22–62.60) | 30.03% (25.48–34.89) |
| Attempted sexual intercourse, anal or oral sex | 20.33% (15.89–25.37) | 11.47% (5.81–19.72) | 31.14% (26.40–36.18) |
| Completed sexual intercourse, anal or oral sex | 19.26% (14.97–24.16) | 11.45% (5.91–19.46) | 28.80% (24.19–33.76) |
| None of the above | 19.75% (13.05–27.99) | 27.70% (16.28–41.73) | 10.03% (7.14–13.61) |

NOTE: 95-percent confidence intervals for each estimate are indicated in parentheses.

As in 2012, a surprisingly large percentage of men classified as having experienced unwanted sexual contact indicated that none of the component behaviors that define unwanted sexual contact occurred in the "one event" that had the greatest effect (27.7 percent in 2014, 34.3 percent in 2012). This lack of specificity was not due to respondents skipping these questions. Rather, 74 percent of respondents in the "none of the above" category answered every question but indicated that each of the behaviors listed did not occur. This suggests that either (a) these individuals were incorrectly identified as having experienced an unwanted sexual contact in the past year or (b) they did have an unwanted sexual contact in the past year, but chose as their "one event" an incident that was not an unwanted sexual contact. In either case, it appears that the series of questions about the "one event" may include a substantial number of people who responded about incidents that do not qualify as criminal assaults.

Table 7.3 exhibits a pattern of unwanted sexual contacts across pay grades that closely follows the pattern found for sexual assaults reported earlier from the RMWS form results. Specifically, junior enlisted (E1–E4) men and women report substantially higher rates of past-year unwanted sexual contact than do senior enlisted personnel or officers. Among officers, junior grades (O1–O3) similarly experience substantially higher rates of unwanted sexual contact than do senior grades. These patterns are consistent with findings from prior WGRA administrations.

The prior WGRA form contained items assessing perceived retaliation or negative consequences experienced by respondents who reported an unwanted sexual contact to military authorities in the past year. SAPRO requested that we provide estimates on these adverse actions because retaliation is a measure used by DoD to track progress in its efforts to reduce stigma associated with reporting sexual assaults. The prior WGRA form contains items assessing perceived retaliation against those respondents who reported an unwanted sexual contact to military authorities in the past year. These items asked respondents if they perceived any retaliation or adverse action as a result

**Table 7.3**
**Percentage of Service Members Who Experienced Unwanted Sexual Contact in the Past Year, by Gender and Pay Grade**

| Pay Grade | Total | Men | Women |
|---|---|---|---|
| Total | 1.43% (1.23–1.66) | 0.93% (0.71–1.20) | 4.31% (3.89–4.76) |
| E1–E4 | 2.20% (1.77–2.71) | 1.42% (0.95–2.04) | 6.48% (5.65–7.39) |
| E5–E9 | 0.90% (0.74–1.09) | 0.60% (0.43–0.81) | 2.84% (2.39–3.35) |
| O1–O3 | 1.10% (0.80–1.48) | 0.72% (0.40–1.20) | 2.69% (2.06–3.45) |
| O4–O6 | 0.25% (0.11–0.48) | 0.15% (0.03–0.45) | 0.85% (0.42–1.51) |

NOTE: Too few warrant officers were included in the sample to break them out as a separate pay grade. For the purposes of this table, warrant officers have been included in the E5–E9 category. *Unwanted sexual contact* is defined using the WGRA measures and methods. 95-percent confidence intervals for each estimate are indicated in parentheses.

of the one event that had the greatest effect on them, including professional retaliation (such as being denied promotion or training), social retaliation (such as being ignored by coworkers), adverse administrative actions (such as being transferred to a different assignment), or punishments for violations associated with the event (such as for underage drinking). In the WGRA portion of our 2014 study, 62 percent of women who reported an unwanted sexual contact to military authorities perceived at least one form of adverse action (with a 95-percent confidence interval of 51 percent to 72 percent), and of those women, 54 percent perceived either professional or social retaliation. Among those women who officially reported a sexual assault

- 32 percent indicated that they perceived professional retaliation (95% CI: 23 percent to 42 percent)
- 53 percent indicated that they perceived social retaliation (95% CI: 42 percent to 63 percent)
- 35 percent indicated that they experienced adverse actions (95% CI: 25 percent to 45 percent)
- 11 percent indicated that they experienced punishments (95% CI: 5 percent to 18 percent).

Our 2014 estimate of perceived retaliation and adverse consequences is identical to that found in 2012, when 62 percent of women who reported a sexual assault per-

ceived at least one form of retaliation or adverse action. (Reliable estimates could not be produced for perceived retaliation among men in either the 2012 or the 2014 survey.)

## Prior Form (WGRA) Sexual Harassment Prevalence Estimates

Estimates of the percentage of service members who experienced sexual harassment in the past year measured in 2014 using WGRA definitions are shown in Table 7.4; Figure 7.2 places these estimates in the context of the previous surveys. These estimates suggest that active-component women in 2014 were less likely to be sexually harassed in 2014 than in 2012. Indeed, the estimated 20.2 percent of servicewomen who experienced sexual harassment in the past year was 3 percentage points lower than in 2012 and 12.5 percentage points lower than in 2006. The share of servicemen who were classified as having experienced sexual harassment in the past year in 2014 (3.5 percent) and 2012 (4.1 percent) did not differ significantly. However, the 2.5 percentage point decrease between 2006 and 2014 represents a significant reduction among servicemen that were classified as having experienced sexual harassment in the past year.

Across the four services, we estimate that Air Force men and women were less likely to experience sexual harassment relative to members in other services in 2014. A comparison over time for service-specific estimates indicates that women in the Army experienced a significantly lower rate of sexual harassment in 2014 compared with 2012, 2010, and 2006. Women in the Air Force experienced a significantly

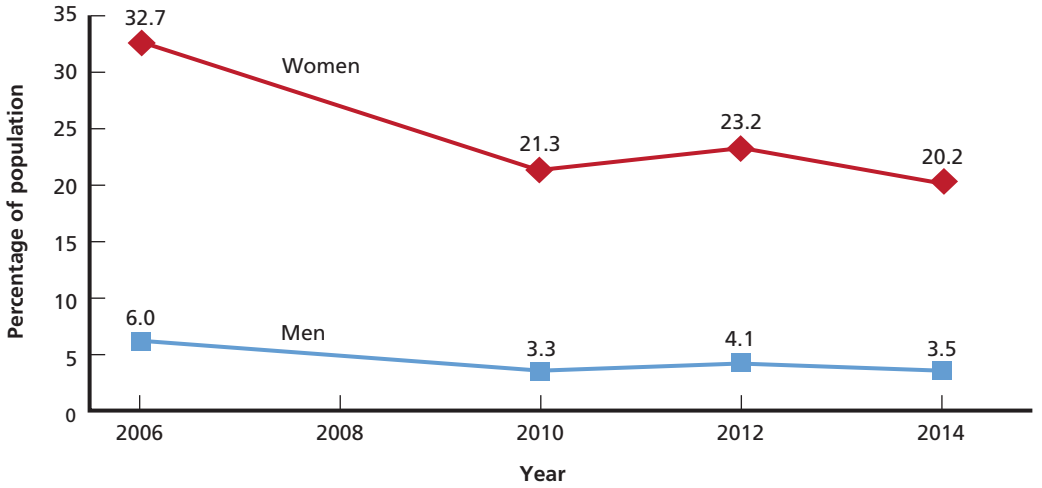
**Table 7.4**
**Estimated Percentage of Active-Component Service Members in 2014 Who Experienced Sexual Harassment, as Measured in the WGRA in the Past Year, by Gender and Service Branch**

| Service | Total | Men | Women |
|---|---|---|---|
| Total | 6.00% (5.61–6.41) | 3.50% (3.07–3.97) | 20.23% (19.45–21.03) |
| Army | 6.83%[a] (6.15–7.57) | 4.29%[a] (3.54–5.13) | 22.74%[a] (21.40–24.12) |
| Navy | 7.69%[a] (6.78–8.69) | 4.54% (3.55–5.73) | 22.48%[a] (20.68–24.36) |
| Air Force | 4.03%[a] (3.67–4.42) | 1.65%[a] (1.32–2.03) | 14.31%[a] (13.38–15.28) |
| Marine Corps | 4.27%[a] (3.14–5.65) | 2.68% (1.56–4.28) | 24.11% (20.89–27.57) |

NOTE: *Sexual harassment* is defined using the WGRA measures and methods. 95-percent confidence intervals for each estimate are indicated in parentheses.

[a] Percentage is significantly different than the average of the other services within a column; $p < 0.05$, Bonferroni corrected.

**Figure 7.2**
**Estimated Percentages of Active-Component Men and Women Who Experienced Sexual Harassment in the Past Year, as Measured in the WGRA, 2006–2014**




NOTE: 2006 estimates are for calendar year 2006. Estimates for 2010, 2012, and 2014 are for a time period closer to the fiscal year.

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higher rate of past-year sexual harassment in 2014 compared with 2010, a lower rate compared with 2006, but no significant difference relative to 2012. Women in the Navy saw a significant decrease compared with 2006, but no significant changes since then. Women in the Marine Corps are estimated to have significantly lower rates of sexual harassment in 2014 compared with 2012 and 2006, but this rate is not statistically different than the 2010 rates. Among men, service-specific percentages of past-year sexual harassment were not significantly different from 2012. Active-component men in the Navy, Army, and Air Force all have significantly lower estimated rates of past-year sexual harassment in 2014 than were observed in 2006, but current rates are not significantly lower than in 2012 or 2010. The sexual harassment rate for men in the Marine Corps has not declined significantly compared with rates measured in any of these prior surveys (2012, 2010, or 2006).

Table 7.5 shows that for active-component men and women, junior enlisted personnel have statistically significantly higher rates of past-year sexual harassment experiences than do other pay grades, but the differences between pay grades are not as large as seen for unwanted sexual contact. In fact, junior officers who are women have nearly the same estimated rates of past-year sexual harassment as do junior enlisted women. Even among more senior officers (O4–O6), 1 in 8 women indicated they were sexually harassed by the WGRA definition of this concept in the past year.

**Table 7.5**
**Estimated Percentage of Active-Component Service Members Who Experienced Sexual Harassment in the Past Year, by Gender and Pay Grade**

| Pay Grade | Total | Men | Women |
|---|---|---|---|
| Total | 6.00% (5.61–6.41) | 3.50% (3.07–3.97) | 20.23% (19.45–21.03) |
| E1–E4 | 7.32% (6.51–8.20) | 4.51% (3.61–5.55) | 22.65% (21.22–24.12) |
| E5–E9 | 5.21% (4.83–5.61) | 3.08% (2.69–3.52) | 18.73% (17.68–19.83) |
| O1–O3 | 5.76% (5.09–6.50) | 2.37% (1.76–3.11) | 19.85% (18.22–21.56) |
| O4–O6 | 2.77% (2.25–3.38) | 1.19% (0.78–1.74) | 12.58% (10.84–14.49) |

NOTE: Too few warrant officers were included in the sample to break them out as a separate pay grade. For the purposes of this table, warrant officers have been included with the E5–E9 category. *Sexual harassment* is defined using the WGRA measures and methods. 95-percent confidence intervals for each estimate are indicated in parentheses.

CHAPTER EIGHT

# Findings from the Reserve Component

*Terry L. Schell and Andrew R. Morral*

The RMWS study included about 13,500 respondents who were service members in the reserve component, including members of the selected reserve from the Army Reserve, Army National Guard, Navy Reserve, Air Force Reserve, Air National Guard, and Marine Corps Reserve (results for the seventh reserve component, the U.S. Coast Guard Reserve, are described in a separate volume). Similar to the prior versions of the Workplace and Gender Relations Survey of Reserve Component Members (WGRR), members of the individual ready reserve and retired reserve were not sampled.

Because a full WGRR was already planned for 2015, RAND's study was not designed to provide a comprehensive assessment of the experiences of reserve-component members in each of the six DoD reserve components. Instead, the sample was designed to facilitate reserve component–wide descriptions of sexual assault and harassment, and to compare rates of each in the full reserve component with the rates observed in the active component. Moreover, the reserve-component sample only received the RAND form. That is, we did not randomly assign some reserve-component members to receive the WGRA form, as we did with the active-component sample. As such, we provide here just those top-line comparisons between members of the active and reserve components as measured on the RAND form.[1] Additional information about the reserve sample is contained in the appendix.

## Sexual Assault

Men and women in the reserve component are estimated to experience past-year sexual assaults at significantly lower rates than their peers in the active component (Table 8.1). Indeed, the percentage of women who experienced a past-year sexual assault is approximately 50 percent higher in the active component than in the reserve component. The estimate for reserve-component men is also significantly lower than active-component men.

These 2014 rates of sexual assault using the RMWS measure are similar to rates of unwanted sexual contact found in the 2012 WGRR, which estimated 0.5 percent of men and 2.8 percent of women experienced a past-year unwanted sexual contact

**Table 8.1**
**Estimated Percentage of Service Members Who Experienced a Sexual Assault in the Past Year, by Component and Gender**

| Component | Total | Men | Women |
|---|---|---|---|
| Reserve component | 0.89% (0.68–1.15) | 0.38% (0.18–0.71) | 3.13% (2.52–3.84) |
| Active component | 1.54% (1.38–1.70) | 0.95% (0.78–1.15) | 4.87% (4.61–5.14) |

NOTE: *Reserve component* refers to members of the selected reserves including those in the National Guard. 95-percent confidence intervals for each estimate are indicated in parentheses.

(DMDC, 2013). Although we cannot say with certainty how the rates reported here compare with rates of unwanted sexual contact that might have been produced had we used the WGRR form, we know that in the active-component sample, rates of past-year unwanted sexual contact and sexual assault as measured on the two forms were similar for men and women.[2]

Based on this rate of sexual assault, we estimate that 7,100 reserve-component members experienced a sexual assault in the past year (95% CI: 5,400–9,100). Unlike in the active component, however, in the reserve component we estimated that more women experienced a sexual assault (4,600; 95% CI: 3,700–5,700) than men (2,500; 95% CI: 1,200–4,600).

Among men in the reserve component, nearly all who identified past-year sexual assaults had a non-penetrative assault (Table 8.2). The estimated percentage of reserve-component men who experienced a penetrative sexual assault is lower than was found among active-component men. In 2012, the WGRR found that among the unwanted sexual contacts that had the greatest effect on men, none was penetrative.

**Table 8.2**
**Estimated Percentage of Reserve-Component Service Members Who Experienced a Sexual Assault in the Past Year, by Type and Gender**

| Sexual Assault Type | Total | Men | Women |
|---|---|---|---|
| Penetrative sexual assault | 0.25% (0.18–0.35) | 0.03% (0.00–0.10) | 1.25% (0.86–1.77) |
| Non-penetrative sexual assault | 0.62% (0.43–0.87) | 0.36% (0.16–0.69) | 1.75% (1.32–2.28) |
| Attempted penetrative sexual assault | 0.02% (0.00–0.07) | 0.00% (0.00–0.09) | 0.13% (0.03–0.40) |
| Any sexual assault | 0.89% (0.68–1.15) | 0.38% (0.18–0.71) | 3.13% (2.52–3.84) |

NOTE: *Reserve component* refers to members of the selected reserves including those in the National Guard. 95-percent confidence intervals for each estimate are indicated in parentheses.

For reserve-component women who reported a sexual assault in the past year, the proportion who indicated that the most severe was penetrative is 40 percent, which is quite close to the 43 percent found for active-component women. The 2012 WGRR found that 27 percent of the unwanted sexual contacts against women that had the greatest effect on them were penetrative, though this is not evidence that the rate of penetrative assaults has increased over time. Instead, the difference is attributable to the changes in the measure. These methodological effects are discussed further in Volume 4 of this series.

Risk of sexual assault in the past year shows roughly the same pattern across reservist pay grades as was seen among active-component members. Junior enlisted members may appear to be at higher risk than other pay grades; however, none of the differences across pay grades is significant for reservists. The study was not designed to provide estimates within the reserve-component sample stratified by pay grade, so these estimates do not have the precision required to support those statistical tests (Table 8.3).

As was true in the active-component sample, a substantial majority of assailants listed by reservists as responsible for the worst of their past-year sexual assaults were other members of the military (81 percent; Table 8.4), and a majority occurred at a military installation or ship (63 percent). In all, 86 percent of the worst events described by reservists were linked to their military service or committed by other military personnel in one or more of the ways listed in Table 8.4.

This number may appear high, given that reservists are often thought of as part-time military members. Reservists, however, vary considerably in their level of participation as a member of the military, and in their time spent in social situations with other military members. While traditional reserve service consists of 39 days per year,

**Table 8.3**
**Estimated Percentage of Reserve-Component Service Members Who Experienced a Sexual Assault in the Past Year, by Pay Grade and Gender**

| Pay Grade | Total | Men | Women |
|---|---|---|---|
| Total | 0.89% (0.68–1.15) | 0.38% (0.18–0.71) | 3.13% (2.52–3.84) |
| E1–E4 | 1.21% (0.75–1.84) | 0.48% (0.09–1.42) | 4.04% (2.86–5.53) |
| E5–E9 | 0.68% (0.52–0.89) | 0.33% (0.18–0.56) | 2.47% (1.91–3.13) |
| O1–O3 | 0.67% (0.31–1.26) | 0.15% (0.00–0.86) | 2.66% (1.51–4.33) |
| O4–O6 | 0.58% (0.29–1.03) | 0.42% (0.13–1.00) | 1.35% (0.65–2.47) |

NOTE: *Reserve component* refers to members of the selected reserves including those in the National Guard. 95-percent confidence intervals for each estimate are indicated in parentheses.

**Table 8.4**
**Estimated Percentage of Sexually Assaulted Service Members Who Indicated the Worst Past-Year Assault Involved a Military Setting or Military Personnel, by Component**

| Question | Active Component | Reserve Component |
|---|---|---|
| At the time of the event, was the person who did this to you someone in the military? | 85.0% (80.9–88.5) | 81.3% (72.3–88.4) |
| Did the unwanted event occur at a military installation/ship, armory, or Reserve unit site? | 65.3% (60.1–70.3) | 63.0% (51.4–73.6) |
| Did the unwanted event occur while you were on TDY/TAD, at sea, or during field exercises/alerts? | 19.1% (14.4–24.6) | 27.2% (18.1–37.9) |
| Which of the following best describe the situation when this unwanted event occurred? You were at a military function. | 16.8% (11.8–22.9) | 23.9% (12.3–39.4) |
| Offender was a civilian employee or contractor working for the military? | 8.9% (6.4–11.9) | 14.2% (7.5–23.6) |
| Did the unwanted event occur while you were completing military occupational specialty school/technical training [etc.]? | 12.0% (8.4–16.4) | 13.9% (7.4–22.9) |
| Did the unwanted event occur while you were deployed or receiving danger pay? | 14.7% (10.8–19.3) | 13.1% (6.9–21.9) |
| Did the unwanted event occur while you were in recruit training/basic training? | 5.1% (2.7–8.6) | 2.8% (0.6–8.0) |
| Did the unwanted event occur while you were in Officer Candidate or Training School/Basic or Advanced Officer Course? | 3.5% (1.2–7.7) | 2.6% (0.5–7.9) |
| Did the unwanted event occur while you were in any kind of military combat training? | 5.7% (3.7–8.4) | NR (3.1–26.4) |
| Any of the above indicators that crime related to military service or military personnel | 90.2% (87.1–92.8) | 85.7% (77.6–91.7) |

NOTE: *Reserve component* refers to members of the selected reserves including those in the National Guard. 95-percent confidence intervals for each estimate are indicated in parentheses. NR = Not reportable.

many serve on active duty for longer periods. Reservists can serve full time on active duty (as Active Guard and Reserve, or AGR), or can work full time in military units as civilians while simultaneously maintaining an affiliation as a reservist assigned to that unit (such as military technicians). Other reservists can serve on active duty for periods of time on voluntary orders or on involuntary orders for varying durations according to their service's needs, for periods that can include a full year.

To clarify whether the high proportion of assaults that involve military personnel or settings is attributable chiefly to those reservists who are working most of the year in military settings, we separated the reserve-component sample into two groups: part-time reserve-component members (74 percent of reserve-component members) who worked for the military close to the advertised "39 days a year," and more than

part-time reserve-component members (26 percent of reserve-component members) who worked more than 180 days a year for the military.[3] Among part-time reserve-component members who experienced a sexual assault in the prior year, 85 percent (95% CI: 75.5–92.2) reported that the worst such event involved an offender who worked for the military or it occurred in a military setting. This indicates that their risk of sexual assault was predominately associated with their military contacts and activities, while only 15 percent was associated with non-military contacts and activities. Among more than part-time reserve-component members who were sexually assaulted, 90 percent (95% CI: 78.7–96.9) indicated that the worst such event involved an offender who worked for the military or it occurred in a military setting.

Given the considerable differences in time spent in compensated military duties, it is noteworthy that the proportion of assaults against part-time reserve-component members that involve military offenders or settings (85 percent) is not significantly different from the proportion for more than part-time members (90 percent). However, this 5 percentage point difference in proportions has a relatively wide confidence interval (95% CI: +17 to –9).

On average, part-time reserve-component members indicated that they spent approximately 11 percent of the year in compensated military duties (and none indicated more than 50 percent time). In that context, our finding that approximately 85 percent of those who were sexually assaulted identified the worst event as involving military personnel or settings is noteworthy. However, the portion of the year spent in military settings or with military personnel may be somewhat higher than 11 percent, because reservists may socialize or work with other members of the military while not on duty, and they may perform uncompensated activities in military settings. The current study is not designed to explore this finding in greater detail; however, further investigation is needed to understand why such an apparently large proportion of sexual assault risks faced by part-time reserve-component members is tied to military settings and personnel.

As with comparisons between the services, discussed in Chapter Six, simple comparisons between the active and reserve components may be misleading. Members of the reserve component are significantly older than active-component members. For instance, in 2013, 43.1 percent of active-component members were 25 years old or younger, whereas just 34.2 percent of selected reserve members were in this age range (U.S. Department of Defense, 2013). Because sexual assault risk is correlated with age, we would expect sexual assault to be higher in the active-component sample, just due to this demographic difference between members of the components. On the other hand, the active component has a higher percentage of officers (1 for every 4.7 active-component members in 2013) than does the selected reserve (1 for every 5.5 members), a difference that would, all other factors being equal, lead us to expect the reserve component to have higher rates of past-year sexual assault than the active component.

Similar to analyses in Chapter Six designed to investigate service difference, we used regression models to explore the extent to which the active and reserve components' differences in risk for sexual assault can be explained by other differences across these two populations. Specifically, we calculated a series of risk ratios comparing the rates of sexual assault across components. This includes an unadjusted risk ratio, as well as adjusted ratios in which we control for demographic characteristics and military experiences. These models use the demographic and military experience variables listed in Table 6.1[4] but do not control for the military environment variables, because those measures are not always available for members of the reserve component. The unadjusted risk ratios for past-year sexual assault (Table 8.5, Model 1) shows that before adjustment, women in the active component are 1.6 times as likely than those in the reserve component to have experienced a sexual assault in the past year, and men in the active component are 2.5 times as likely to experience such an assault relative to men in the reserve component.

Model 2 in Table 8.5 shows that the adjusted risk ratios for men and women diminish somewhat, but remain significantly larger than 1.0 after adjusting for a wide range of service member demographic characteristics, such as age, marital status, and education level. Model 3 shows that differences in risk between active- and reserve-component members look slightly larger once military service characteristics are accounted for, such as service, pay grade category, months of active-duty service, and deployment history. Indeed, men in the active component are about three times as likely to experience a sexual assault in the past-year relative to men in the reserve component who are similar in terms of age, race, education, pay grade, deployment history, and other factors.

**Table 8.5**
**Adjusted and Unadjusted Risk for Sexual Assault Relative to Reserve-Component Personnel, by Component and Gender**

| Gender | Component | Unadjusted Risk Ratio Model 1 | Adjusted Risk Ratio Model 2: Demographics | Adjusted Risk Ratio Model 3: Demographics, Mil. Experience |
|---|---|---|---|---|
| Women | | | | |
| | Reserve | 1 | 1 | 1 |
| | Active | 1.56 (1.26–1.92) | 1.39 (1.12–1.72) | 1.43 (1.09–1.87) |
| Men | | | | |
| | Reserve | 1 | 1 | 1 |
| | Active | 2.48 (1.29–4.75) | 2.16 (1.10–4.21) | 3.13 (1.10–4.21) |

NOTE: *Reserve component* refers to members of the selected reserves including those in the National Guard. 95-percent confidence intervals for each estimate are included in parentheses.

The implication of this analysis is that the higher rates of past-year sexual assaults experienced by members of the active component relative to the reserve component cannot be explained by their relative ages, the proportion of officers, their combat deployments, or any of the other demographic or military experience factors considered in the models. Similar to our analysis of service differences, these analyses demonstrate what factors cannot explain the higher rate of sexual assault in the active component relative to the reserve component, but the analyses do not identify what factors do explain the difference. This is a useful step in understanding active- and reserve-component differences because we have now ruled out many of demographic factors previously and plausibly suspected of explaining those differences.

We find, therefore, that (1) the worst past-year sexual assaults against part-time reserve-component members are perpetrated predominately by military personnel and occur in military settings, with sexual assaults perpetrated by nonmilitary personnel representing just 15 percent of their sexual assault risk; and (2) the lower risk of sexual assault faced by reserve-component members compared to those in the active component is not explained by demographic differences between the components. These two observations are consistent with each other. That is, the lower rate of sexual assault among reserve-component members relative to active-component members is consistent with the fact that they spend more of their time in non-military environments that have a low risk of sexual assault.

An alternative explanation for these findings is that reserve-component members systematically underreport their civilian sexual assaults but correctly report their military sexual assaults. We investigate this possible source of bias in Volume 4 with several additional analyses, but conclude that such a bias is unlikely to fully account for the findings described above.

## Sexual Harassment

The sexual harassment questions asked of reserve-component members differed from those administered to active-component members. Reserve-component members were asked about workplace experiences that occurred "while you were on military duty, including National Guard or reserve duty such as weekend drills, annual training, and any period in which you were on active duty. Do not include experiences that happened in your non-military job." That is, they were asked to limit their responses to describing experiences that occurred at their military workplaces, excluding events in their civilian workplace in the past year. In contrast, active-component personnel were simply asked about their workplace experiences. This difference in question wording is important for understanding differences between active and reserve components on sexual harassment outcomes.

**Table 8.6**
**Estimated Percentage of Reserve-Component Service Members Who Experienced a Sex-Based MEO Violation in the Past Year, by Gender**

| MEO Violation | Total | Men | Women |
|---|---|---|---|
| Any sex-based MEO violation | 8.80% (7.60–10.10) | 6.68% (5.30–8.29) | 18.12% (16.35–19.99) |
| Gender discrimination | 2.84% (2.40–3.33) | 1.47% (1.03–2.02) | 8.86% (7.64–10.21) |
| Any sexual harassment | 7.39% (6.23–8.69) | 5.98% (4.62–7.58) | 13.62% (12.04–15.32) |
| *Sexually hostile environment* | 7.37% (6.21–8.66) | 5.97% (4.62–7.58) | 13.53% (11.95–15.23) |
| *Sexual quid pro quo* | 0.39% (0.25–0.58) | 0.16% (0.06–0.36) | 1.40% (0.83–2.20) |

NOTE: Any sex-based MEO violation includes experiences of gender discrimination and sexual harassment. Sexual harassment includes any experiences of a sexually hostile work environment or sexual *quid pro quo* at work. *Reserve component* refers to members of the selected reserves including those in the National Guard. 95-percent confidence intervals for each estimate are indicated in parentheses.

Table 8.6 presents findings on sexual harassment and gender discrimination violations experienced by reserve-component members while performing their military duties. Whereas rates of each violation for men are comparable to those seen for active-component men, women in the reserves appear to experience significantly lower rates of past-year sexually hostile work environments than do women in the active component, 21.4 percent of whom indicated such experiences. Because sexually hostile work environments are the most common form of sexual harassment, this difference between active- and reserve-component women in their rates of sexually hostile work environments is mirrored in a difference in their rates of overall sexual harassment. Reserve-component women have lower rates of exposure to sexual harassment than the 21.6 percent of women in the active component with such experiences in the past year. Women reservists also reported lower rates of gender discrimination than women in the active component. Together, these differences result in an overall sex-based MEO violation rate for reserve-component women that is significantly lower than the rate estimated for active-component women (26 percent).

## Conclusions

The reserve component portion of the RMWS served two main purposes. First, we sought to design and test a reserve-component version of the survey instrument initially developed for an active-component sample. Second, we sought to compare

top-line rates of sexual harassment and sexual assault between the active and reserve components.

The reserve version of the new survey questions required relatively few changes from the version used with the active-component sample. In the case of the sexual assault items, no modifications were necessary. As with the active-component sample, we were interested in all sexual assault experiences of reserve-component members, not just those relating to their military employment.

Because the measures of sexual harassment and gender discrimination in the military workplace have slightly different instructions for reserve-component and active-component members, interpreting comparisons between active and reserve should be done with caution. Specifically, whereas MEO-violation rates reported by active-component members could be based on a full year of full-time exposure to military workplaces, the rates for many reserve members will be based on as little as 39 days. As such, the significantly lower rates of gender discrimination and sexually hostile work environments we report for women in the reserves could reflect their lower exposure to military workplaces.

With regard to past-year sexual assault, we found that reserve-component members have lower risk for sexual assault than similar active-component members, and that those differences are not well-explained by a range of demographic and military experiences factors. In addition, the sexual assaults experienced by reservists were predominately "military" sexual assaults rather than civilian. Even for part-time reservists, 85 percent of those who experienced a sexual assault indicated that it involved military personnel as the offender or occurred in a military setting.

CHAPTER NINE

# Discussion and Recommendations

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The 2014 RMWS survey was designed to address some of the criticisms made of the 2012 WGRA and prior versions of that survey and to make the focus of the survey more clearly on crimes under the UCMJ and violations of equal opportunity laws and regulations. Relative to the 2012 WGRA, the RMWS had many more respondents, a higher response rate, and an analytic sample that is representative of the population on a wider set of risk factors for sexual assault or harassment. The new RMWS survey instrument collects more-detailed information about these events, uses simpler questions, more clearly restricts the questions to events that occurred in the past year, and excludes events that do not meet the legal standards for sexual assault, sexual harassment, or gender discrimination.

This improved study confirms and extends some of the core findings of the earlier WGRA surveys. In particular, critics have questioned whether the actual rate of sex offenses in the military was being overstated by imprecise estimates provided by the unwanted sexual contact question used in the WGRA survey—suggesting that the top-line numbers included many minor, or even accidental, physical contacts. Instead, our estimates suggest that the prior WGRA measures and methods slightly underestimate the proportion of service members who experienced a sexual assault in the past year and, as we will discuss further in Volume 4 of this series, it underestimated the severity of assaults service members are experiencing.

We also showed that the percentage of active-component members who experienced a past-year unwanted sexual contact has declined significantly over the past two years. The portion of our study conducted using the prior WGRA form demonstrates that unwanted sexual contact and sexual harassment, as these have been measured over the past eight years, have declined for active-component women since 2012, but they are not significantly lower than in 2010. Similarly, a smaller percentage of active-component men experienced past-year unwanted sexual contacts or sexual harassment in 2014 than in 2006, though most of this change occurred between 2006 and 2010. Since then, the percentage of men reporting past-year unwanted sexual contact or sexual harassment has remained steady, at around 1 percent and 3–4 percent, respectively.

The primary focus of this report, however, is on the results from our new RMWS survey instrument, which provides the first estimates for the prevalence of criminal

sexual assault as defined in the UCMJ, and sexual harassment and gender discrimination that is sufficiently severe or persistent as to violate DoD's MEO policies. The findings lead us to several broad conclusions about the current status of sexual assault and harassment in the military, outlined below.

## Some Service Members Experience Higher Rates of Sexual Assault Compared with Similar Members Who Spend Less Time in Military Settings

We estimate that 20,300 active-component members were sexually assaulted in the past year, or approximately 1 percent of servicemen and 5 percent of servicewomen. Because assaulted service members often experienced multiple incidents in the past year, the incidence rate is higher; over the past year there were approximately 2.5 incidents per 100 men and 9.6 incidents per 100 women. We find that incidents meeting the legal criteria for sexual assault include considerably more penetrative assaults than suggested by prior WGRA studies: of those experiencing a sexual assault, 43 percent of women and 35 percent of men were classified as having experienced a penetrative sexual assault. At the time the survey was conducted, we estimate that 15 percent of active-component women and 2 percent of active-component men have experienced a sexual assault since having joined the military.

Not all these sexual assaults were clearly connected to military service, as we counted all sexual assaults against service members, including those that took place away from work or that involved non-military assailants. Nevertheless, we find that the preponderance of past-year assaults against service members (90 percent) occurred in military settings or were perpetrated by military personnel. For instance, 85 percent of victims indicated their assailant was another member of the military and 65 percent indicated the assault occurred at a military installation or ship.

Since service members may spend the majority of their time in work settings or socializing with fellow service members, it is reasonable to question whether their rate of exposure to sexual assault risk differs from civilians who are otherwise similar. To examine this, we would need civilian sexual assault rates for people just like those who enter military service in terms of a broad array of possible risk factors, such as demographic characteristics (gender, age, marital status, etc.), alcohol use, and housing arrangements, for example. We would also need comparable measures of sexual assault given to both groups. Unfortunately, no such directly comparable civilian data exist.

We can, however, test the closely related question of whether those in the military full time have higher rates of sexual assault than similar people who spend less time in military settings. Specifically, members of the reserve component who share the same demographic profiles as active-component members (such as age, gender, education level, marital status, and many other factors) but who typically spend less time in mili-

tary settings, are less likely to be sexually assaulted than similar service members in the active component.

Nonetheless, when looking at reserve members in our sample who were sexually assaulted, and who report having spent less than one-half the previous year performing compensated military duties, 85 percent of those assaults were perpetrated by a military service member or occurred in a military setting. Thus, a substantial majority of their risk for sexual assault is tied to their military colleagues and military workplaces, rather than to their non-military contacts and settings. On average, these reserve-component members indicated that they spent approximately 11 percent of the year in compensated military duties. In that context, our finding that approximately 85 percent of those who were sexually assaulted identified the worst event as involving military personnel or settings is noteworthy. However the portion of the year spent in military settings or with military personnel may be higher than 11 percent, because reservists may socialize or work with other members of the military while not on duty, and they may perform uncompensated activities in military settings.

## Risk of Sexual Assault Varies Substantially by Branch of Service

Despite the many features of military life shared by airmen and their peers in other services, men and women in the Air Force experience substantially lower rates of sexual assault and sexual harassment than those in the Army, Navy, and Marine Corps. The differences in risk between services might be attributable to differences in the characteristics of the members of each service. However, our analyses demonstrated that members of the Air Force continued to be at substantially lower risk of sexual assault, even while accounting for many of the factors that have been proposed as possible explanations for service differences in risk.

Specifically, when we control for demographic characteristics (e.g., age, gender, race/ethnicity, education), military experience characteristics (e.g., pay grade, deployments, and time in active-duty service), and military environment characteristics (e.g., the proportion of men in the occupational groups, units, and installations), women in the Army, Navy, and Marine Corps still have a risk of sexual assault that is about 1.7 times that of similar women in the Air Force, and men in those services have more than four times the risk faced by similar men in the Air Force.

These analyses allowed us to rule out many plausible explanatory factors that do not, on closer examination, explain the lower rates of sexual assault found in the Air Force; unfortunately, the analyses did not identify factors that do explain these differences. Future analyses of differences in other facets of service members' experiences could reveal the mechanisms that contribute to the apparently elevated risk of assault to which some members of the military are exposed. Identifying these mechanisms may be important for development of training, policies, or procedures that could substantially lower the rates of sexual assault across the military.

## Sexual Assault Experiences of Men and Women Differ

Men experienced sexual assaults in the past year at rates far lower than women (about 1 in 100 men versus 1 in 20 women), but because men outnumber women in the military, a larger number of servicemen were sexually assaulted over the past year than servicewomen (estimated as 10,600 men and 9,600 women). Similarly, the 2012 WGRA found that more men than women experienced unwanted sexual contacts in the past year. Yet despite the high number of men who are sexually assaulted, very little has previously been known about their assaults. Indeed, the RMWS, with more than 62,000 male respondents, is the first study to include a large enough sample of male victims to provide a detailed description of their experiences.

We find that the characteristics of sexual assaults against men differ substantially from those against women. Among service members who were sexually assaulted in the past year, men were more likely to have been assaulted repeatedly: 55 percent of assaulted women indicated multiple such incidents in the past year, while 75 percent of men experienced multiple incidents. Combined with the fact that a larger number of servicemen than servicewomen experienced a past-year sexual assault, this means that a majority of all incidents, approximately 60 percent, occurred against men.

Among victims of penetrative sexual assaults, most men and women say the assault included the use of physical force against them. Men, however, were more likely to have been physically injured or to have been threatened with physical injury during the assault. Men who experienced any type of sexual assault in the past year were almost twice as likely as women to say the assault was, or was intended to be, abusive or humiliating. The assault identified as the worst in the past year more often involved multiple assailants when men were attacked (49 percent of assaults on men; 35 percent of assaults on women). Assaults on men were nearly twice as likely to occur during the work day, while at work or during duty hours, and were less likely to involve alcohol. Finally, men were more than four times as likely to describe the assault as "hazing" (7 percent for women; 34 percent for men).

Together, these differences suggest a pattern in which sexual assaults against men often involve repeated, physically violent assaults that occur in a context of bullying, abuse, or hazing, often perpetrated by multiple coworkers in their workplace. While this same pattern occurs with women, assaults against women are committed more commonly by an individual male service member outside of the workplace, and women are less likely to describe the attack as intended to abuse or humiliate them, and more likely to describe the intent as sexual.

Despite the violence and repetitiveness of the attacks against men, men are far less likely to file an official report of sexual assault. Among women, 18 percent who had been assaulted filed a victim preference statement (DD Form 2910), compared to just 3 percent of men. Whereas men and women chose not to report sexual assaults for many of the same reasons (such as wanting to forget and move on, not wanting more people to know about it, not wanting to be perceived as weak, or because they mini-

mized the seriousness of the crime), men were more likely to say they did not report the crime because they feared they would be viewed as gay or bisexual if others learned of it.

Given the descriptive features of sexual assaults against men, it is possible that many men do not think about the incident as a sexual assault, but as hazing, bullying, or some other type of physical assault.

## Sexual Harassment and Gender Discrimination Are Common Experiences, Especially for Women in the Military

As discussed in detail within Volume 1 of this series, the RMWS sought to establish the prevalence of sexual harassment and gender discrimination of sufficient severity or persistence as to violate DoD's MEO policies. This approach to measuring sexual harassment and gender discrimination is different than the approach that was used in past DoD surveys. Using the RMWS approach, which does not assume that respondents know the legal definition of sexual harassment, we find large numbers of men and women who have experiences that constitute sexual harassment (7 percent of men and 22 percent of women in the active component) or gender discrimination (2 percent of men and 12 percent of women) in the past year. These violations typically persisted over large portions of the past year, with more that 50 percent of men and women saying they continued for more than three months.

Sexual harassment and gender discrimination in the military is widely recognized among service members, with 77 percent of women and 49 percent of men in the active component describing them as "common" or "very common" occurrences.

Service differences in rates of exposure to sexual harassment and gender discrimination follow a pattern much like that seen for sexual assault, with members of the Air Force at lower risk of past-year sexual harassment compared with other services. Similar to what was found for sexual assault, the lower rates of sexual harassment experienced by men and women in the Air Force cannot be fully explained by differences between services in the characteristics of its members or the environments in which they work that we have considered. An exception is that differences in the rates of sexual harassment among Marine Corps and Air Force men are not significantly different after accounting for the high proportion of men in Marine Corps units and installations.

Sexual harassment chiefly takes the form of a sexually hostile work environment, though this manifests somewhat differently for men and women. The most common types of violations experienced by women include persistent or severe (1) repeated sexual jokes; (2) repeated, unwanted attempts to establish a sexual or romantic relationship; and (3) repeated sexual comments about the woman's appearance. In contrast, the most common types of violations experienced by men include persistent or severe (1) suggestions that they do not act like a man or a heterosexual man should; (2) repeated sexual jokes; and (3) repeated, unnecessary touching (including touching of private areas).

Junior officers and junior enlisted personnel are more likely to experience sexual harassment. In contrast, gender discrimination, which involves harm to a person's career associated with derogatory comments or unfair treatment because of a person's gender, appears to affect service members of all pay grades about equally, though men experience this form of discrimination much less often than do women (2 percent versus 12 percent, respectively).

Prior research demonstrates the negative workplace consequences of sexual harassment and gender discrimination (e.g., Moore, 2010; Rosen, 1998; Sims, Drasgow, and Fitzgerald, 2005). The perceptions of those in our survey who experienced sexual harassment or gender discrimination in the past year are consistent with these prior findings. Specifically, 53 percent indicated that the situation caused workplace arguments or damaged unit cohesion, 50 percent indicated that it interfered with their ability to perform their work, 48 percent indicated that it made the workplace less effective or undermined mission effectiveness, and 13 percent indicated that they used at least one sick day or took some other type of leave because of the situation. Because we estimate that 116,600 active-component members experienced sexual harassment and 43,900 experienced gender discrimination in the past year, any negative effects on cohesion, productivity, and mission effectiveness would affect sizable portions of the force.

Sexual harassment and gender discrimination may affect retention and recruitment as well. Women and men with these experiences are about 30 percent less likely than those experiencing no MEO violations in the past year to say they would be "likely" or "very likely" to remain on active duty if given the option to do so. A substantially higher proportion of service members who experienced sexual harassment or gender discrimination told others about the experience than did those who are sexually assaulted, especially among men. Indeed, 85 percent of women and 70 percent of men who experience sexual harassment or gender discrimination tell other people about these problems, often their friends and family members. Such disclosures of sexist, hostile, or unprofessional working environments could have deleterious effects on recruitment and retention and may explain the large portion of the force who believe sexual harassment is common in the military.

Finally, there is a strong association between sexual harassment and sexual assault and between gender discrimination and sexual assault. Women who were sexually harassed in the military workplace were 14 times more likely to indicate also being sexually assaulted during the same year than those who were not sexually harassed. Men who were sexually harassed in the military workplace were almost 50 times more likely to indicate being sexually assaulted in the past year. Some of this strong association is attributable to the fact that those sexual assaults that occur in the workplace or that involve a coworker may be one part of pervasive sexual harassment against the target. However, since one-third of service members who were sexually assaulted said the offender harassed them before the assault, there is reason to believe that sexual harassment and sexual assault are linked. Sexual assaults would not be characterized as gender

discrimination on the RMWS survey, but here too we find a strong correlation with sexual assault. Women with past-year gender discrimination experiences are almost four times more likely to have past-year sexual assaults, and men with gender discrimination experiences are almost 12 times more likely to experience past-year sexual assaults.

These associations do not prove that sexual harassment and gender discrimination are risk factors for sexual assault, but the strength of the associations suggests that the possibility of a causal relationship should be carefully considered. If sexual harassment or gender discrimination contribute to the risk of sexual assault, this would make reductions in sexual harassment important not just for reducing violations of DoD MEO policies, improving DoD working conditions, and possibly improving readiness, recruitment, and retention, but also because those reductions would also reduce sexual assaults.

## Many Who Report Offenses Perceived Some Level of Social or Professional Retaliation, but the Severity and Consequences of Retaliation Remain Unclear

We estimate that 11 percent of service members who experienced a sexual assault in the past year completed the DD2910 form, which results in the case being classified as either a restricted or unrestricted report of sexual assault. A larger proportion, 21 percent of men and women, told their supervisor or someone in their chain of command about the incident.

Although 52 percent of women who officially reported sexual assaults perceived some form of professional or, more often, social retaliation, fears about possible retaliation appear not to be the primary reason why most people do not make an official report. Fears of retaliation were the primary concern of 15 percent of those who decide not to report a sexual assault. Among women who chose not to file a report, the main reason cited rarely concerned fear of retaliation by the assailant, a supervisor, or coworkers, each of which was indicated by fewer than 2 percent of this group. A higher proportion of men indicated their main concern leading to a decision not to report was fear of retaliation by a supervisor or someone in their chain of command (10 percent).

More commonly, the main reasons offered by those who chose not to report involved some minimization of the significance of the assault (e.g., the service member decided the assault was not serious enough to report), or they wanted to forget about the experience and move on. Interestingly, whether they chose to report or not, men and women are generally satisfied with the decision they made, with about 70 percent of both groups saying they would make the same decision if they had it to do over again. However, those who perceived some kind of retaliation are significantly less likely to say they would make the same decision to report again (55 percent) than those who experienced no retaliation (80 percent).

A substantially higher proportion of service members reported sexual harassment or gender discrimination violations than reported sexual assaults. Close to one-half of women and about one-third of men who experienced one of these violations discussed the situation with a supervisor, someone in their chain of command, or someone tasked with enforcing MEO regulations (i.e., someone with the obligation and authority to act). Two of the most common outcomes of these discussions are consistent with MEO guidance: 65 percent of those who reported the situation said that the rules about harassment were explained to everyone in the workplace, and 43 percent said someone spoke to the offenders(s) asking them to change their behavior. Other common responses may be less consistent with guidance: 44 percent who reported the situation to an authority said they were encouraged to drop the complaint, 41 percent said the person notified on the problem took no action, and 31 percent perceived that the offender(s) retaliated against them for making the complaint. Similarly, 31 percent of those who reported sexual harassment or gender discrimination said they were treated worse by coworkers for having done so, and 21 percent said they were punished by their supervisor for bringing it up. When service members chose not to report such violations, typically they indicated that they handled the problem in some other way or they thought raising the issue would harm them more than it would help.

Together these findings present a mixed picture of the role that retaliation concerns play in decisions to report either sexual assaults or equal opportunity violations. Retaliation is a common concern and many who report sexual assaults or sexual harassment perceive that they experienced some form of retaliation. Nevertheless, fears of retaliation are not typically cited as the primary reason people choose not to report the sexual assaults and violations they experience. Although some members are discouraged from filing an official report by a fear of retaliation, there are many other reasons more commonly given by respondents. Thus, while efforts to reduce retaliation may be important and helpful, a broader set of policy changes may be needed to increase the overall rate at which sexual assaults and MEO violations are officially reported.

## Limitations of the Present Analyses

As with all survey research, the results presented here are subject to several types of measurement error. While we have taken steps to minimize the likelihood of these errors, there is no way to completely eliminate them. A thorough forensic investigation might discover that some of the events identified as crimes really were not crimes per UCMJ definitions and that some crimes occurred but were not counted. Moreover, it is possible that the individuals who did not respond to the survey have either a higher or lower rate of sexual assaults than those who did respond, even after applying analytic weights designed to minimize those differences. In Volume 4 of this series, we present a detailed statistical investigation of the possibility of nonresponse biases in our esti-

mates. This analysis includes new data collection assessing sexual assault among study nonrespondents. These results do not show strong or consistent evidence of a nonresponse bias in our weighted estimates.

Our comparisons of sexual assault and harassment rates across services and between components did not identify all the factors contributing to observed differences in rates of sexual assault. The fact that people who are similar on the demographic and other characteristics we considered have different levels of sexual assault risk depending on whether they are members of the active or reserve component, or belong to one service branch or another, means that we have not identified the risk factors that do explain the these differences. These may involve personnel differences between the active and reserve component other than those we have evaluated (e.g., religion, wealth, sexual assaults prior to joining the military), they could involve features of military culture or policy that elevate risk, or they could involve lifestyle differences associated with military service, such as risks associated with traveling away from home and family, or living in congregate housing. As we recommend below, further research to identify the factors that do explain differences across components and branches of service is warranted.

Volume 4 also includes a detailed discussion of several other potential sources of bias caused by our definition of the sample frame. For example, similar to prior research, the RMWS omitted service members with less than six months of service from our sample, so we have not counted some portion of service members who experienced sexual assaults or harassment in their first months in the military. On the other hand, some in our sample with between six and 12 months of service have been counted as experiencing one of these events even though it may have occurred a few months before they entered active-component service. Finally, some service members served for a portion of the prior 12 months but separated before we could sample or interview them; their sexual assaults are not counted in the estimates we present. In general, the various biases caused by these omissions and inclusions are relatively small, although the net effect suggests that our estimated number of service members who experienced a sexual assault slightly underestimates the true number.

## Recommendations

1. *Improve policies and programs to increase reporting of the full range of sexual assaults defined by the UCMJ, including those that are not perceived as sexual acts (e.g., those that occur under the guise of hazing or bullying).* The low rates at which men officially report being sexually assaulted may relate to differences in the types of attacks they experience. Many of the violent, abusive attacks by multiple assailants, sometimes described by the target as "hazing," may not be viewed as serving a sexual motive. Neither the victims nor commanders who have been alerted to these incidents may think to call a

SARC and begin the sexual assault reporting process. Nevertheless, some such hazing, bullying, and other misconduct clearly constitutes sexual assaults as defined in Article 120 of the UCMJ.

Even when it does occur to the victim that the event qualifies as a sexual assault, he or she may find the sexual assault reporting process uncomfortable. For example, some sexually assaulted men indicated that one of their reasons for not reporting was a fear that they would be perceived to be gay or bisexual. This suggests that men (as well as some women) might benefit from additional training to improve recognition of events that constitute sexual assault.

Relatedly, victims of some assaults may not recognize SARCs as the appropriate authority to whom the incident should be reported, particularly when they do not view the assault as sexual or are uncomfortable with that interpretation. DoD should investigate whether men who have been assaulted perceive SARCs to present an appropriate reporting channel and whether alternative reporting channels available to men reliably identify these incidents as Article 120 violations even when they occur in the context of hazing, bullying, or other misconduct.

2. *Expand sexual harassment and gender discrimination monitoring, prevention, and accountability practices and equip commanders with data and guidance to take effective actions.* Sexual harassment and gender discrimination are forms of unlawful discrimination that deprive service members of equal opportunities within the military. To the extent that the broader public hears from women and men who believe they were treated unfairly in the military, it may affect the services' ability to recruit the most qualified personnel. Finally, sexual harassment may be a risk factor contributing to the prevalence of sexual assault. Because it is so much more common than sexual assault, it may be easier to monitor sexual harassment on a routine basis than it is to monitor sexual assault. Far fewer respondents are required to generate reliable estimates of sexual harassment, meaning assessments could be conducted more frequently or for smaller organizational units (like military units, occupational groups, installations, or ships).

Currently, DoD conducts climate surveys that ask service members' opinions about the prevalence of sexual harassment (such as the Defense Equal Opportunity Management Institute's Organizational Climate Survey, the DEOCS). Behavioral measures assessing the prevalence of such offenses could be combined with the DEOCS data to supplement and validate those attitudinal climate measures.

When large-scale scientific surveys of sexual assault and harassment are conducted, it may be possible to develop methods for generating installation-level estimates that could be communicated to commanders of larger installations. Base commanders currently have no way of knowing whether the rates of criminal sexual assault or harassment violations at their installation are higher or lower than other bases. Without measurement of these outcomes within their commands, it may be difficult for commanders to make the changes needed to prevent these crimes and violations. While producing installation-level estimates presents several challenges (e.g., having adequate statisti-

cal precision, maintaining confidentiality of respondents, and interpreting the results), communicating results directly to the leaders who are in a position to change the command climate may improve the effectiveness of the DoD response to these problems.

3. *Target prevention and enforcement efforts to reduce bullying, hazing, and other demeaning behaviors.* Military training and enforcement to reduce sexual assaults are largely designed from a perspective that sexual assaults are committed for the purpose of sexual gratification (e.g., acts by heterosexual men against women to whom they are attracted). However, there is a long tradition in the social sciences of considering many sexual assaults to be primarily acts of violence, domination, or humiliation (e.g., Brownmiller, 1975; Marshall, Laws, and Barbaree, 1990). Many, perhaps even most, of the sexual assaults we identified in the study might be more accurately thought about as a type of physical assault, rather than as acts motivated by sexual attraction. We found that many sexual assaults, particularly those targeting men, occur repeatedly over time, involve multiple assailants, and occur in the context of hazing or for the purpose of abusing or humiliating the service member.

Thus, it may be possible to reduce the number of sexual assaults by preventing the broader class of physical assaults on service members, reducing the prevalence of physical fights, hazing, or bullying within the military. It may also be possible to use evidence of physical violence against service members, or predictors of such violence, to identify individuals who are at unusually high risk for sexual assault. This may facilitate interventions to prevent sexual assaults and may help restore good order and discipline within the member's unit.

Relatedly, efforts to understand who is at greatest risk for physical or sexual assaults could improve prevention efforts. We believe many different types of people may be at risk. Among them may be service members who are gay or lesbian, or suspected of being so, as in some other contexts LGBT individuals are at unusually high risk for harassment, bullying, and sexual assault (Rothman, Exner, and Baughman, 2011; Kosciw et al., 2012). For this reason, future investigations of the risks of sexual assault, bullying, and hazing would benefit from assessing service members' sexual orientation.

4. *Identify factors contributing to risk and prevention of sexual assault and sexual harassment.* The RMWS study has provided a wealth of new information on the prevalence and correlates of sexual assault, sexual harassment, and gender discrimination in the military, but with these new details come new questions that will require additional research. Top priorities for future investigations include the following:

- *Develop a comprehensive risk model for both sexual assault and harassment to better identify subpopulations at risk, and to target intervention and prevention efforts*. The new RMWS measures appear to capture different events than the prior measures, and they identify a substantially greater number of serious assaults among men. These new measures and the large sample surveyed with them could be used to develop predictive models of important outcomes that have not been well studied

in the past, including models predicting sexual assault, sexual harassment, and sexual assault reporting. Such models would provide insight into the characteristics of the service members who experience these events (age, pay grade, occupation, etc.), as well as identify the circumstances in which the events occur. Those insights may drive policies that could improve training, prevention, enforcement, and response programs.

- *Explain the substantial differences in risk across services, including identifying the policies, programs, attitudes, and work environment and personnel characteristics that might explain these disparities*. Better understanding of the differences in sexual assault risk in the Air Force relative to other services could help to isolate the factors that contribute to the apparently elevated risk in those services. The current study was able to rule out a range of plausible demographic and other characteristics, which do not account for these service differences. A deeper investigation would examine a more comprehensive set of measures—including, for instance, measures of command climate and military experiences—that might account for and lead to strategies for reducing risk in those services where it now appears to be disproportionately high.
- *Investigate the nature and severity of retaliation experiences reported by many women who made official reports of sexual assault*. The current research shows that approximately one-half of the women who reported a sexual assault perceived experiencing some type of retaliation or harm as a consequence of that report, primarily some type of social retaliation. Without additional information, however, it is difficult to formulate effective training, policies, or legislation that could minimize these additional harms endured by those who experience a sexual assault. While the population of servicewomen who have been sexually assaulted, made an official report, and experienced retaliation is relatively small, much of relevance might be learned from the much larger population of men and women who indicate they were retaliated against after making an official report of sexual harassment or gender discrimination.

5. *Evaluate the sexual assault and sexual harassment training received by service members.* The RMWS did not attempt to assess the accuracy and completeness of service members' knowledge of sexual assault and harassment. The study team determined that including such a knowledge exam would conflict with the primary goals of this study. However, we believe ongoing monitoring of service member knowledge of sexual assault and sexual harassment may be key to improvements in training. In particular, it would be helpful to have representative time-series data that assess whether service members accurately understand the legal definitions of sexual assault and sexual harassment, whether they know their obligations for investigating and reporting such events based on their position in the chain of command, and whether they understand the reporting process. The current study identified a substantial portion of individuals

whose experiences met the criteria for sexual harassment but who did not label those experiences as sexual harassment. It also identified a large portion of sexual assaults as defined by the UCMJ that do not look like stereotypical sexual assault (including a majority that involved male victims, and many that were done for an abusive rather than sexual purpose). Given these findings, it would be good to verify that service members understand the full range of events that are classified as sexual assault or sexual harassment under the UCMJ or DoD regulations, and to use those data to evaluate changes in training.

## Additional Information on the RAND Military Workplace Study

This report is the second in a series on the RAND Military Workplace Study. Additional information about the study design, the survey instrument, and its rationale can be found in Volume 1. Volume 3 describes findings for the U.S. Coast Guard. Finally, Volume 4 presents a series of methodological investigations, each designed to better understand possible sources of bias in our survey results due to, for instance, differences in sexual assault experiences between those who chose to complete the survey and those who did not; undercounting or overcounting of past-year sexual assaults because of who was included and excluded from the sample frame; bias due to respondents failing to complete the survey because it was too upsetting or offensive; and biases resulting from counting events as occurring in the past year that actually occurred earlier, or counting events as crimes that were not, and other related analyses.

APPENDIX

# The Department of Defense Sample

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## Sample Design

### Active Component

*Sample frame*. The population included all Army, Navy, Air Force, and Marine Corps active-component members listed in the May 2014 Defense Enrollment Eligibility Reporting System (DEERS) database maintained by the DMDC; an eligible population of 1,317,561.[1] For continuity with earlier WGRA surveys, we matched the exclusion criteria previously used to define WGRA sampling frames (see Volume 1 for details).[2]

*Sample selection.* DoD asked RAND to ensure that the active-component sample included all women in the sample frame and 25 percent of active-component men. The sample sizes were designed to provide enough respondents who had experienced a sexual assault in the past year so that the characteristics of those assaults could be analyzed with sufficient statistical precision. To ensure proportionate representation across services and pay grades, men were grouped into 16 sampling strata defined by the intersection of the four services and four groups of pay grades (E1–E4, E5–E9, O1–O3, and O4–O6). The E5–E9 stratum includes warrant officers for sampling. Selection probabilities for men were equal to 0.25 in each of the 16 strata. The resulting DoD sample included 477,513 active-component members, of whom 41.4 percent were women. The composition of the sampling frame and the sample is listed in Table A.1.

### Reserve Component

*Sample frame*. The population included all members of the Selected Reserves in the Army, Navy, Air Force, and Marine Corps, including both National Guard and reserve members, listed in the May 2014 DMDC dataset—a population of 794,051.[3] Exclusion criteria are similar to those for the active component sample (see Volume 1 for details).

*Sample selection.* We estimated a much smaller sample size for guard and reserve compared to active-component service members because we will not produce separate prevalence estimates by detailed reporting categories (Table A.2). We sampled about 60,000 guard and reserve members from the four DoD services using stratified random sampling, with the six branches as strata. The DoD reserve sample included 27,004 women and 33,003 men to ensure that estimates for men and women (the pri-

**Table A.1**
**Active-Component DoD Sampling Frame and Sample Sizes, by Gender, Service, and Pay Grade**

| | Total | | Women | | Men | |
|---|---|---|---|---|---|---|
| | Frame | Sample | Frame | Sample | Frame | Sample |
| Total number: | 1,317,561 | 477,513 | 197,491 | 197,491 | 1,120,070 | 280,022 |
| Column percentages: | | | | | | |
| Army | 38.1% | 37.2% | 35.2% | 35.2% | 38.7% | 38.7% |
| E1–E4 | 16.3% | 16.1% | 15.6% | 15.6% | 16.4% | 16.4% |
| E5–E9 | 15.8% | 14.6% | 12.2% | 12.2% | 16.4% | 16.4% |
| O1–O3 | 3.7% | 4.1% | 4.9% | 4.9% | 3.5% | 3.5% |
| O4–O6 | 2.4% | 2.4% | 2.4% | 2.4% | 2.4% | 2.4% |
| Navy | 23.8% | 25.1% | 27.8% | 27.8% | 23.0% | 23.0% |
| E1–E4 | 9.6% | 10.9% | 14.0% | 14.0% | 8.8% | 8.8% |
| E5–E9 | 10.3% | 10.1% | 9.5% | 9.5% | 10.5% | 10.5% |
| O1–O3 | 2.4% | 2.6% | 3.0% | 3.0% | 2.2% | 2.2% |
| O4–O6 | 1.5% | 1.5% | 1.3% | 1.3% | 1.5% | 1.5% |
| Air Force | 23.9% | 25.7% | 30.0% | 30.0% | 22.8% | 22.8% |
| E1–E4 | 8.5% | 9.0% | 10.2% | 10.2% | 8.3% | 8.3% |
| E5–E9 | 10.6% | 11.5% | 13.6% | 13.6% | 10.1% | 10.1% |
| O1–O3 | 2.7% | 3.1% | 4.1% | 4.1% | 2.4% | 2.4% |
| O4–O6 | 2.2% | 2.2% | 2.2% | 2.2% | 2.1% | 2.1% |
| Marine Corps | 14.1% | 11.9% | 7.0% | 7.0% | 15.4% | 15.4% |
| E1–E4 | 8.4% | 7.1% | 4.4% | 4.4% | 9.1% | 9.1% |
| E5–E9 | 4.3% | 3.6% | 2.0% | 2.0% | 4.8% | 4.8% |
| O1–O3 | 0.9% | 0.8% | 0.5% | 0.5% | 1.0% | 1.0% |
| O4–O6 | 0.5% | 0.4% | 0.1% | 0.1% | 0.5% | 0.5% |

NOTE: Warrant officers are included in the group of E5–E9 pay grades for the purposes of sampling.

mary reporting categories for this population) have statistical precision similar to the reporting categories for the active-component sample (e.g., female Marines, female junior officers). These sample sizes correspond to selection rates of 5.1 percent and 18.3 percent of the sampling frame for men and women, respectively. These rates were separately applied to the six DoD reserve-component strata to ensure the same sample composition as in the population.

**Table A.2**
**Reserve-Component DoD Sampling Frame and Sample Sizes, by Gender and Service**

| | Totals | | Women | | Men | |
|---|---|---|---|---|---|---|
| | Frame | Sample | Frame | Sample | Frame | Sample |
| Total number: | 794,051 | 60,007 | 147,412 | 27,004 | 646,639 | 33,003 |
| Column percentages: | | | | | | |
| Army | 66.4% | 65.9% | 64.9% | 64.9% | 66.7% | 66.7% |
| Navy | 7.5% | 7.9% | 8.8% | 8.7% | 7.2% | 7.2% |
| Air Force | 21.3% | 22.5% | 25.2% | 25.2% | 20.4% | 20.4% |
| Marine Corps | 4.8% | 3.7% | 1.1% | 1.2% | 5.8% | 5.7% |

## Final Respondent Disposition

Service members included in the 2014 sampling frame are considered *eligible* if they were alive at the end of the survey's field period. Our definition of *eligible complete* includes anyone whose sexual assault status can be determined. We classified eligible nonrespondents into four groups: no response, active refusal, partial complete with no information, and partial complete with insufficient information. The partial completes are separated into two groups to distinguish between those participants who started the survey and provided no information, and those who provided some but insufficient information to determine whether he/she was sexually assaulted in the past year (see Volume 1 for further details).

### Active Component

Table A.3 summarizes the case disposition categories, which follow survey research standards for documentation (American Association for Public Opinion Research [AAPOR], 2011), for the active-component sample.

Out of a sample of 477,513 DoD active-component service members, there were 145,300 eligible completes. The majority (65.5 percent) of the sample provided no response after repeated attempts to reach the service member. Of the partial respondents, 55 percent provided no information while the remainder provided insufficient information to determine whether they had experienced a sexual assault in the past year. Because respondents completed different forms, the total number of responses on each of the key survey modules varied as shown in Table A.4.

Tables A.5 and A.6 provide information on the quality of the postal and email addresses for this sample. In the first mailing sent to the entire sample of active-component service members, 2 percent were a National Change of Address (NCOA)–system identified unmailable address. NCOA processing identifies individuals that have submitted address changes within the past 12 months, in addition to verifying that the mailing

**Table A.3**
**Case Disposition Frequencies for Active-Component DoD Sample**

| Case Disposition | Sample Cases | Percentage |
|---|---|---|
| Total sample | 477,513 | 100.0 |
| Ineligible – deceased | 92 | 0.0 |
| Eligible complete | 145,300 | 30.4 |
| Nonresponse | | |
| No response | 312,964 | 65.5 |
| Active refusal | 438 | 0.1 |
| Partial complete, no information | 10,407 | 2.2 |
| Partial complete, insufficient information | 8,672 | 1.8 |

NOTE: *Partial complete, no information* refers to sampled members who loaded the survey consent form but did not complete any survey questions. *Partial complete, insufficient information* refers to sampled members who answered at least one survey question, but were missing the measure of sexual assault or unwanted sexual contact.

**Table A.4**
**Number of Active-Component Respondents Who Completed Each Survey Module**

| Survey Module | Sample Size | Respondents | Response Rate |
|---|---|---|---|
| WGRA Outcomes (prior form) | 100,000 | 29,541 | 29.5% |
| RMWS Sexual Assault Outcomes | 377,513 | 115,759 | 30.7% |
| RMWS MEO Violation Outcomes | 218,841 | 65,810 | 30.1% |

address is valid, with a matching city and zip code. Another 16 percent were returned as postal nondeliverable. Mail with bad addresses is returned by the postmaster as nondeliverable.

Also, in the first batch of emails sent to the full sample, 5 percent of the sample was missing an email address while another 4.3 percent encountered a bounce back due to a non-working email address. Sample members could have multiple email addresses. The email addresses were ordered by priority on the sample record, with military email address considered first priority and home email addresses considered second priority. Emails were programmed to be sent to the highest-priority email address. "No email sent" indicates that no address was available.

**Table A.5**
**Quality of Mailing Address Based on Initial Postal Mailing**

| | Sample Cases | Percentage |
|---|---|---|
| Total sample | 477,513 | 100.0 |
| No mail sent | 9,732 | 2.0 |
| Nondeliverable | 75,942 | 15.9 |

**Table A.6**
**Quality of Email Address Based on Initial Email**

| | Sample Cases | Percentage |
|---|---|---|
| Total sample | 477,513 | 100.0 |
| No e-mail sent | 24,900 | 5.2 |
| Bounce back | 20,374 | 4.3 |

### Reserve Component

Table A.7 provides the breakdown by case disposition categories of the reserve-component sample. Out of a sample of 60,007 DoD reserve-component service members, there were 13,546 eligible completes. The percentage of the sample in the reserve component without a response (75 percent) after repeated attempts is higher than in the active-component sample (66 percent). Of the partial respondents, one-half provided no infor-

**Table A.7**
**Case Disposition Frequencies for Reserve-Component DoD Sample**

| Case Disposition | Sample Cases | Percentage |
|---|---|---|
| Total sample | 60,007 | 100.0 |
| Ineligible – deceased | 5 | 0.0 |
| Eligible complete | 13,546 | 22.6 |
| Nonresponse | | |
| No response | 44,856 | 74.8 |
| Active refusal | 53 | 0.1 |
| Partial complete, no information | 780 | 1.3 |
| Partial complete, insufficient information | 767 | 1.2 |

NOTE: *Partial complete, no information* refers to sampled members who loaded the survey consent form but did not complete any survey questions. *Partial complete, insufficient information* refers to sampled members who answered at least one survey question, but were missing the measure of sexual assault or unwanted sexual contact.

mation while the other half provided insufficient information to determine whether they had experienced a sexual assault in the past year.

## Response Rates

### Active Component

We have used the most conservative of the AAPOR (2014) definitions of response rates (RR1). We present the sample size and number of completes in columns 1 and 2, respectively, of Table A.8. Column 3 shows the unweighted response rate, while column 4 displays the design-weighted response rate, with the design weights adjusting for the oversampling of women relative to men. The unweighted and design-weighted versions of the RR1 metric for the active-component DoD sample are 30.4 percent and 28.8 percent, respectively. The response rate for the prior form is 29.5 percent, while those for the short, medium, and long forms are 31.1, 30.8 and 29.2 percent, respectively. Recruitment materials included a time estimate based on which form the survey participant would get, with the short form requiring the least time of the three.

Table A.9 includes response rates by gender, service, and pay grade for the active-component DoD sample. The response rate for women (34 percent) was six percentage points higher than that for men (27.9 percent). Service members in the Air Force had the highest response rate (43.5 percent), followed by the Army (29.4 percent), Navy (23.3 percent), and Marine Corps (20.6 percent). Across pay grades, senior officers (O4–O6) had a response rate (55.5 percent) that is three times that of the junior enlisted (E1–E4) service members, who have the lowest response rate (18.1 percent).

### Reserve Component

The overall response rate for the reserve-component sample is 22.6 percent, eight percentage points lower than the 30.4 percent response rate among the active-component service members (Table A.10). The short form and medium form response rates are

**Table A.8**
**Response Rates for DoD Active-Component Sample, by Survey Form**

| | Sample Size | Respondents | Unweighted Response Rate | Weighted Response Rate |
|---|---|---|---|---|
| Total | 477,513 | 145,300 | 30.4% | 28.8% |
| Prior form | 100,000 | 29,541 | 29.5% | 28.1% |
| RMWS form | 377,513 | 115,759 | 30.7% | 29.0% |
| Short form | 158,672 | 49,340 | 31.1% | 29.3% |
| Medium form | 158,958 | 48,917 | 30.8% | 29.2% |
| Long form | 59,883 | 17,502 | 29.2% | 27.7% |

**Table A.9**
**Response Rates for DoD Active-Component Sample, by Gender, Service, and Pay Grade**

| | Sample Size | Respondents | Unweighted Response Rate | Weighted Response Rate |
|---|---|---|---|---|
| Men | 280,022 | 78,113 | 27.9% | 27.9% |
| Women | 197,491 | 67,187 | 34.0% | 34.0% |
| Service | | | | |
| Army | 177,856 | 52,236 | 29.4% | 27.8% |
| Navy | 119,507 | 27,787 | 23.3% | 22.4% |
| Air Force | 123,189 | 53,550 | 43.5% | 42.4% |
| Marine Corps | 56,961 | 11,727 | 20.6% | 19.3% |
| Pay grade | | | | |
| E1–E4 | 206,204 | 37,302 | 18.1% | 15.4% |
| E5–E9 | 190,209 | 69,326 | 36.4% | 35.3% |
| O1–O3 | 50,413 | 21,646 | 42.9% | 42.0% |
| O4–O6 | 30,687 | 17,026 | 55.5% | 56.0% |

**Table A.10**
**Response Rates in the Reserve-Component Sample, by Form and Guard or Reserve Status**

| | Sample Size | Respondents | Unweighted Response Rate | Weighted Response Rate |
|---|---|---|---|---|
| Total | 60,007 | 13,546 | 22.6% | 22.2% |
| Short form | 30,235 | 6,897 | 22.8% | 22.4% |
| Medium form | 29,772 | 6,649 | 22.3% | 21.9% |
| National Guard | 31,994 | 7,226 | 22.6% | 22.4% |
| Reserves | 28,013 | 6,320 | 22.6% | 21.9% |

comparable (22.8 percent and 22.3 percent). Response rates (22.6 percent) were similar among National Guard and reserve members.

Table A.11 shows response rates by gender and service for the DoD reserve sample. The response rate for women (23.4 percent) was slightly higher than that for men (21.9 percent). Service members in the Air National Guard and Air Force Reserve had the highest response rate (34.7 percent and 30.2 percent), followed by Navy Reserve (25.1 percent), Army Reserve and National Guard (20.5 percent and 18.7 percent, respectively), and Marine Corps Reserve (11.3 percent).

**Table A.11**
**Response Rates for DoD Reserve Component, by Gender and Service**

| | Sample Size | Respondents | Unweighted Response Rate | Weighted Response Rate |
|---|---|---|---|---|
| Gender | | | | |
| Men | 33,003 | 7,239 | 21.9% | 21.9% |
| Women | 27,004 | 6,307 | 23.4% | 23.4% |
| Service | | | | |
| Army National Guard | 24,223 | 4,527 | 18.7% | 18.9% |
| Army Reserve | 15,307 | 3,144 | 20.5% | 20.6% |
| Navy Reserve | 4,735 | 1,187 | 25.1% | 25.4% |
| Air National Guard | 7,771 | 2,699 | 34.7% | 34.2% |
| Air Force Reserve | 5,773 | 1,741 | 30.2% | 29.2% |
| Marine Corps Reserve | 2,198 | 248 | 11.3% | 10.4% |

## Weighting

After respondents and nonrespondents were identified, we derived survey weights to produce estimates from the respondents' data that are generalizable to the full population of interest. Survey weighting is necessary to make the analytic sample more representative of the population (Heeringa, West, and Berglund, 2010; Little and Rubin, 2002; Schafer and Graham, 2002). Specifically, analyses should incorporate weights that adjust for differential sampling probabilities and nonresponse, and nonresponse weights should "make use of the most relevant data available" to ensure a representative analytic sample (Office of Management and Budget, 2006, Guideline 3.2.12.)

### Design Weights

For active-component service members, women were selected with certainty (sampling probability of 1) while 25 percent of men were selected for the study. An unweighted average of the respondents' survey reports would not correctly represent population results: it would overrepresent the opinions and experiences of women, relative to their share of the active-component population. Thus, design weights were necessary to adjust estimates for the different sampling probabilities by gender. The design effect, or variance inflation factor, associated with our design is 1.28. (We employed the same design for the reserve component).

### Nonresponse Weights

Respondent data were weighted to ensure that our analytic sample was representative of the active-component population. Two sets of weights are used in this report (see Chapter Five of Volume 1 for a detailed description). When presenting 2014 results from the prior WGRA form items, we use the weighting procedures that were used in 2012 (see details in DMDC, 2012). When presenting results for the new assessments from the RMWS forms, we used weights designed to make the analytic sample representative on a broader range of factors than were used in the 2012 analyses. A comparison of the two weights will follow in Volume 4.

These two weights have certain similarities. Both weighting approaches used the same design weights. Using either the 2012 WGRA or the RMWS weighting method, the distribution of the weighted respondents matches the full DoD population across key reporting categories of gender, branch of service, and pay grade (Table A.12). However, there are some differences. The WGRA weights include minority status in a post-stratification step, while the RAND weights include race/ethnicity in its nonresponse model. The RAND weights include a broader range of factors (see Exhibit 5.2 in Volume 1) to reduce potential nonresponse bias in the survey estimates to the fullest extent possible by including many observed factors.

While including all factors that could plausibly explain nonresponse has advantages for reducing bias, it can have the undesirable effect of making the weights more variable, and thereby reduce the precision of estimates. We see this in the design effect associated with the two sets of weights. The design effect associated with the WGRA and RMWS weights are 2.7 and 3.7, respectively, computed using Kish's approximation (Kish, 1965). Despite the higher variance of the RMWS weights, the large sample sizes assigned to the RMWS form means that there is greater precision. An estimate of precision is provided by the effective analysis sample sizes for each form, which are approximately 10,941 (29,541/2.7) for the WGRA form and 31,286 (115,759/3.7) for the RMWS form.

### Reserve Component Weights

The weights for the reserve component were derived through a process that was similar to the RMWS weights for the active-component sample. (WGRA-type weights were not derived for the reserve component because the prior WGRA form of the survey was not administered to them.) There were some differences, however, in the process of deriving reserve component weights. These differences were necessary due to either the nature of the reserve component data or the smaller sample size for those analyses.

First, we had several types of administrative data for reservists in addition to the variables listed in Volume 1, Exhibit 5.2. This included reserve component, reserve component category (RCC) designator code, training and retirement category (TRC) designator, reserve category group code, and days spent on military duties since 8/1/2013.

**Table A.12**
**Balance of Weighted Respondents to the Active-Component DoD Population, by Weight Type**

| Reporting Category | Population | Population Percentage | Sample Percentage WGRA Weights | Sample Percentage RMWS Weights |
|---|---|---|---|---|
| Female, Army, Junior Enlisted | 30,960 | 2.35 | 2.35 | 2.35 |
| Female, Army, Senior Enlisted | 24,099 | 1.83 | 1.83 | 1.83 |
| Female, Army, Junior Officer | 9,711 | 0.74 | 0.74 | 0.74 |
| Female, Army, Senior Officer | 4,675 | 0.35 | 0.35 | 0.35 |
| Female, Navy, Junior Enlisted | 27,613 | 2.10 | 2.10 | 2.10 |
| Female, Navy, Senior Enlisted | 18,630 | 1.41 | 1.41 | 1.41 |
| Female, Navy, Junior Officer | 5,989 | 0.45 | 0.45 | 0.45 |
| Female, Navy, Senior Officer | 2,714 | 0.21 | 0.21 | 0.21 |
| Female, Air Force, Junior Enlisted | 20,063 | 1.52 | 1.52 | 1.52 |
| Female, Air Force, Senior Enlisted | 26,826 | 2.04 | 2.04 | 2.04 |
| Female, Air Force, Junior Officer | 8,065 | 0.61 | 0.61 | 0.61 |
| Female, Air Force, Senior Officer | 4,370 | 0.33 | 0.33 | 0.33 |
| Female, Marine, Junior Enlisted | 8,709 | 0.66 | 0.66 | 0.66 |
| Female, Marine, Senior Enlisted | 3,795 | 0.29 | 0.29 | 0.29 |
| Female, Marine, Junior Officer | 990 | 0.08 | 0.08 | 0.08 |
| Female, Marine, Senior Officer | 282 | 0.02 | 0.02 | 0.02 |
| Male, Army, Junior Enlisted | 183,363 | 13.92 | 13.92 | 13.92 |
| Male, Army, Senior Enlisted | 183,498 | 13.93 | 13.93 | 13.93 |
| Male, Army, Junior Officer | 39,708 | 3.01 | 3.01 | 3.01 |
| Male, Army, Senior Officer | 27,069 | 2.05 | 2.05 | 2.05 |
| Male, Navy, Junior Enlisted | 98,531 | 7.48 | 7.48 | 7.48 |
| Male, Navy, Senior Enlisted | 117,396 | 8.91 | 8.91 | 8.91 |
| Male, Navy, Junior Officer | 24,578 | 1.87 | 1.87 | 1.87 |
| Male, Navy, Senior Officer | 17,735 | 1.35 | 1.35 | 1.35 |
| Male, Air Force, Junior Enlisted | 91,740 | 6.96 | 6.96 | 6.96 |
| Male, Air Force, Senior Enlisted | 113,243 | 8.59 | 8.59 | 8.59 |
| Male, Air Force, Junior Officer | 26,971 | 2.05 | 2.05 | 2.05 |
| Male, Air Force, Senior Officer | 23,504 | 1.78 | 1.78 | 1.78 |
| Male, Marine, Junior Enlisted | 101,800 | 7.73 | 7.73 | 7.73 |
| Male, Marine, Senior Enlisted | 53,295 | 4.04 | 4.04 | 4.04 |
| Male, Marine, Junior Officer | 11,369 | 0.86 | 0.86 | 0.86 |
| Male, Marine, Senior Officer | 6,270 | 0.48 | 0.48 | 0.48 |
| **TOTAL** | 1,317,561 | | | |

NOTES: *WRGA weights* refer to the system of sample weights used for the estimates based on the prior form survey. *RMWS weights* refer to the system used on estimates from the RAND forms. *Junior Enlisted* includes personnel in pay grades E1 through E4. *Senior Enlisted* includes personnel in pay grades E5 through E9 and W1 through W5 (warrant officers). *Junior Officer* includes personnel in pay grades O1 through O3, and *Senior Officer* includes personnel in pay grades O4 through O6.

All of these variables were included in the models used to predict key outcomes in the first stage of the derivation of nonresponse weights.

Second, in the initial stage of the development of nonresponse weights, we created variables that captured the relationship between the administrative data (the predictor variables) and key study outcomes. For the active component, we considered six key outcomes, but for the reserve component we only considered three: *sexual harassment*, *gender discrimination*, and *any sexual assault*. Therefore, we derived only three combination variables to be included in the nonresponse model.

Third, in the reserve-component nonresponse model, we created weights that balanced the respondent sample to the full population on the following factors: gender, reserve component (Air National Guard, Air Force Reserve, Army National Guard, Army Reserve, Marine Reserve, Navy Reserve), pay grade (E1–E5, E6–E9, O1–O3, O4–O6), form type (short, medium), the three combination variables, and all two-way interactions between those seven variables.

Fourth, the reserve-component sample was post-stratified on gender by reserve component as a final step (Table A.13).

**Table A.13**
**Balance of Weighted Respondents to the DoD Reserve-Component Population**

| Reporting Category | Population | Population Percentage | Sample Percentage RMWS Weights |
|---|---|---|---|
| Female, Army National Guard | 52,526 | 6.62 | 6.62 |
| Female, Army Reserve | 43,161 | 5.44 | 5.44 |
| Female, Navy Reserve | 12,871 | 1.62 | 1.62 |
| Female, Air National Guard | 19,601 | 2.47 | 2.47 |
| Female, Air Force Reserve | 17,598 | 2.22 | 2.22 |
| Female, Marine Reserve | 1,655 | 0.21 | 0.21 |
| Male, Army National Guard | 286,126 | 36.04 | 36.04 |
| Male, Army Reserve | 145,018 | 18.26 | 18.26 |
| Male, Navy Reserve | 46,567 | 5.86 | 5.86 |
| Male, Air National Guard | 81,898 | 10.31 | 10.31 |
| Male, Air Force Reserve | 49,935 | 6.29 | 6.29 |
| Male, Marine Reserve | 37,095 | 4.67 | 4.67 |
| **TOTAL** | 794,051 | | |

NOTES: *RMWS weights* refer to the system used on estimates from the RAND forms. *Junior Enlisted* includes personnel in pay grades E1 through E4. *Senior Enlisted* includes personnel in pay grades E5 through E9 and W1 through W5 (warrant officers). *Junior Officer* includes personnel in pay grades O1 through O3, and *Senior Officer* includes personnel in pay grades O4 through O6.

# Notes

## Summary

[1] Article 120 of the UCMJ, "Rape and Sexual Assault Generally," defines four offenses: rape, sexual assault, aggravated sexual contact, and abusive sexual contact. In this report, as in the title of Article 120, we use the term *sexual assault* to refer to all four offenses, not just to the one offense labeled sexual assault.

[2] Population estimates have been rounded to the nearest hundred service members. This differs from the preliminary results contained in the top-line report (NDRI, 2014), which were rounded to the nearest thousand. The statistical precision of many of these estimates supports the increased numerical precision.

## Chapter Three: Sexual Assault Findings: Active Component

[1] Confidence intervals (CIs) describe how precisely one can draw inferences about the population from a statistic estimated on a sample from that population. For example, in the analytic sample of respondents, 1.54 percent of service members in the active component indicated experiencing a sexual assault. We can infer from these respondents that the true percentage in the population falls between 1.38 percent and 1.70 percent with very high confidence (probability = 0.95). Larger samples allow for narrower confidence intervals.

[2] Population counts have been rounded to the nearest hundred, which results in these estimates not summing to 20,300.

[3] An implication of this strategy is that once a service member indicated having experienced a sexual assault during the past year, we did not continue to ask detailed questions that would have identified additional sexual assaults. A detailed analysis of the sexual assault instrument, including its correspondence with the specific wording of Article 120, is included in the RAND methodology report (Morral, Gore, and Schell, 2014).

[4] *Private areas* were defined to include the buttocks, inner thigh, breasts, groin, anus, vagina, penis, and testicles.

[5] The variable used to estimate the average number of sexual assaults experienced in the past year (SAFU1) included six response options. Four of the responses were numeric responses (1 time, 2 times, etc.), but two responses were not specific numbers: "5 or more times since [X date]" and "More than once, but not sure the number of times it happened since [X date]." To calculate the mean number of sexual assaults, we used a conservative approach to coding these responses. Respondents who indicated

that they experienced a sexual assault "5 or more times since [X date]" were coded as experiencing five incidents. Respondents who indicated that they experienced sexual assault "More than once, but not sure the number of times it happened since [X date]" were coded as experiencing two incidents. Thus, the number of incidents is computed in a conservative manner that will undercount incidents for those individuals who had more than five in the past year. However, it is also important to note that some of the incidents we are counting may not qualify as sexual assault crimes under the UCMJ. The survey established that at least one incident per respondent qualified as a crime under the UCMJ, but it did not assess all UCMJ criteria for each of the additional incidents in the past year.

[6] *Hazing* was defined in the survey as "things done to humiliate or toughen up people prior to accepting them into a group."

[7] RMWS: "Restricted reports allow people to get information, collect evidence, and receive medical treatment and counseling without starting an official investigation of the assault. Unrestricted reports start an official investigation in addition to allowing the services available in restricted reporting."

[8] DD Form 2910, also known as the Victim Preference Reporting Statement, is a document on which a sexual assault victim chooses whether to make a restricted or unrestricted report of the assault to the military.

## Chapter Four: Sexual Harassment and Gender Discrimination Findings: Active Component

[1] We use the term *offender(s)* to refer to the person or people who sexually harassed or discriminated against the respondent. We acknowledge that not all forms of sexual harassment and gender discrimination are necessarily illegal, but prefer *offender* because it is more readily interpretable by all readers, over the term *source*, which is often used in the academic literature.

## Chapter Five: Beliefs About Sexual Assault and Sexual Harassment Prevalence, Prevention, and Progress

[1] This chapter describes findings and conclusions that are subject to the limitations of self-report survey research. A full investigation of the experiences described by respondents could find that incidents we do not classify as sexual assault, sexual harassment, or gender discrimination may indeed qualify as actual violations, whereas some of those we classify as sexual assault, sexual harassment, or gender discrimination may prove not to be such violations.

## Chapter Six: Branch of Service Differences in the Rates of Sexual Assault and Sexual Harassment

[1] This chapter describes findings and conclusions that are subject to the limitations of self-report survey research. A full investigation of the experiences described by respondents could find that incidents we do not classify as sexual assault, sexual harassment, or gender discrimination may indeed qualify as actual violations, whereas some of those we classify as sexual assault, sexual harassment, or gender discrimination may prove not to be such violations.

[2] The specific model used to estimate these effects employed a log link function, so that exponentiated model coefficients were risk ratios rather than odds ratios, as would be produced in a logistic regression model. The models used robust standard errors (i.e., General Estimating Equations), rather than inferring statistical significance directly from a Poisson distribution. All models were estimated using RMWS weights within SAS PROC GENMOD. Models were stratified by gender, thus they always control for a gender effect (even in the unadjusted estimates) as well as all interactions by gender.

In addition to the predictors listed in Table 6.1, the regression models included a range of additional terms. These include (1) missing data flags for cases that were missing *Entry Age*, *Education*, *AFQT*, and *assigned unit* to avoid case-wise deletion on covariates with nontrivial missingness; and (2) quadratic terms for the effects of *Age* and *AFMS*. The model results described in the report do not include interactions between the covariates that were included in a given model, but we did exploratory analyses to evaluate whether inclusion of two-way interactions would alter the pattern of effects found in the main effects model. Because of the potentially large number of two-way interactions, these were added to the base model (the main effects model) only if the interaction was significant at the $p < 0.15$ level in the final model (Model 4). However, if an interaction met this entry criterion it was also included in Models 2 or 3 when it was between two variables that were also included in those models. The only exception to these rules was Model 4, predicting risk for sexual assault among men. The small number of assaulted men relative to the number of predictors in the model resulted in estimation problems; for this one model, the main effects of variables listed in Table 6.1 were also removed from the model if they were not significant at $p < 0.15$ to create a more parsimonious model. The results from these models incorporating interaction terms were nearly identical to the base model. No risk ratio in the model with interactions differed from those listed in Table 6.2 by more than 0.05, and the pattern of statistical significance was unchanged from what is shown in that table.

[3] As with our analyses of service differences in sexual assault, we also conducted exploratory analyses not reported here to examine whether inclusion of two-way interactions between covariates would alter the pattern of findings. They did not. No risk ratio changed by more than 0.07, and the pattern of significance across estimates was identical to that described in Table 6.3.

## Chapter Seven: Results Using the Prior WGRA Measures and Methods

[1] Estimates of sexual assault and sexual harassment (along with their margins of error) from the 2012, 2010, and 2006 surveys were provided by DMDC to RAND for purposes of making these comparisons. Effects are referred to as significant with $p < 0.05$.

[2] In this section, we limit discussion of changes in rates over time to just those differences that are statistically significant, unless otherwise noted. Where we do not mention changes from a prior administration of the WGRA, no significant differences were found between 2014 and that year.

[3] Respondents who indicated they experienced an unwanted sexual contact in the past year were then asked how many separate incidents occurred in the past 12 months. The nine response options were 1–8, as well as "9 or more." For computing incidence, respondents who indicated "9 or more" were treated as 9. This question was different on the 2010 and 2006 WGRA surveys and so cannot be compared with those years. The incidence rate has not been presented in prior DMDC reports, but it can be computed from the information in the 2012 Tabulation of Responses Report. It is worth noting that the estimates labeled "Unwanted Sexual Contact incident rate" contained within 2012 WGRA reports give the prevalence rate, not the incidence rate, of unwanted sexual contact over the past year. Thus, it is lower than the incidence rate for the 2012 WGRA presented in this report.

## Chapter Eight: Findings from the Reserve Component

[1] This chapter describes findings and conclusions that are subject to the limitations of self-report survey research. A full investigation of the experiences described by respondents could find that incidents we do not classify as sexual assault, sexual harassment, or gender discrimination may indeed qualify as actual violations, whereas some of those we classify as sexual assault, sexual harassment, or gender discrimination may prove not to be such violations.

[2] As noted earlier, the study was not designed to compare the individual components within the reserves, which would have required a substantially larger sample of members from the smaller reserve components. Accordingly, no statistically significant differences in sexual assault were found when comparing the National Guard to the other reserve components, nor when making other comparisons between the reserve components. Due to the lack of precision for estimates within these unplanned reporting categories, results for these comparisons will not be presented here.

[3] Reservists were classified as *more than part time* on the basis of either self-report or personnel records. Specifically, they were classified as *more than part time* if (a) they indicated they worked "181 days or more" for the military on RMWS survey question 267; (b) they were classified as AGR in personnel records, including Navy Active Reserve, Marine Corps Active Reserve, and all other reserve or National Guard personnel serving on active duty other than active duty for training, including statutory tours and full-time National Guard duty (FTNGD) in active- and reserve-component organizations; or (c) they served in active duty or FTNGD for more than 180 days in a fiscal year but are exempted from counting against the active-duty strengths or FTNGD (AGR strength) in accordance with 10 U.S.C. 101(d)(6)(B). Other types of reservists were classified as *part-time*. It is important to note that *more than part time* reservists are different from *part-time* reservists on several key risk factors for sexual assault. Those who are *more than part time* tend to be higher pay grades, older, and more likely to be male.

When asked about their days spent in compensated duty in the last year, the median and modal response category for part-time reservists was "25–47 days." This was also the median and modal response category among the subset of part-time reservists who experienced a sexual assault in the past year. This category corresponds to spending between 7 percent and 13 percent of the past year in military duty. The average number of duty days in the prior year (computed using the midpoint of each response category on this question) was 40.2 days, or 11 percent of the year, among those part-time reservists who were sexually assaulted.

[4] The one difference between the variables used in the service differences analyses (Chapter Six) and those used in active-component versus reserve-component analyses is that the latter included "branch of service" as one of the military experience variables.

The specific model used to estimate these effects employed a log link function, and robust standard errors (i.e., General Estimating Equations), rather than inferring statistical significance directly from a Poisson distribution. All models were estimated using RMWS weights within SAS PROC GENMOD. Models were stratified by gender, thus always control for a gender effect as well as all interactions by gender.

In addition to the predictors listed in Table 6.1 under demographic characteristics and military experience, the models included a range of additional terms. These include (1) missing data flags for cases that were missing *Entry Age*, *Education*, and *AFQT* to avoid case-wise deletion on covariates with nontrivial missingness; and (2) quadratic terms for the effects of *Age* and *AFMS*. As we did with models in Chapter Six, we explored the possible effects of all two-way interactions between the covariates that were included in a given model. Because of the potentially large number of two-way interactions, these were added to the base model only if the interaction was significant at the $p < 0.15$ level in the final model (Model 3). The pattern of significant results when including interaction terms was identical to that excluding them, and no risk ratio changed by more than 0.08 in the model with interaction terms in comparison to those risk ratios reported in Table 8.5, which excludes them.

## Appendix: The Department of Defense Sample

[1] Coast Guard service members were included in the active-component sampling frame and sampled as its own stratum. Results for the Coast Guard samples (of active and reserve components) will be analyzed separately from the results of the four DoD services and available in Volume 3.

[2] Those with less than six months of service have historically been excluded from WGRA surveys for logistical and substantive reasons. In terms of survey logistics, the development of a sample frame and survey fielding typically take several months, so it has not been possible to enter the field pursuing a sample of service members with less than several months of service. In addition, those still in basic training or transitioning to their first assigned units are difficult to reach, as their addresses and even email addresses are likely to have changed between the time the sample is drawn and the field date of the survey. Substantively, those with less than six months of service can provide only a partial estimate for the main "past year" measures in the WGRA. Alternative sampling and survey methods would need to be employed to get accurate population estimates of newer service members.

General and flag officers have been excluded in the past (and in the RMWS) because, as the leaders and decisionmakers in the services, their experience is not expected to be comparable to others, yet their numbers are too small to satisfactorily analyze separately.

[3] Coast Guard reserves were included in the reserve-component sampling frame and sampled within their own strata. Results for the Coast Guard samples (active and reserve components), will be analyzed separately from the results of the other four services.

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