
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

National Defense Research Institute



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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 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 Personnel (WGRA). Separately, the Coast Guard requested that we expand the 2014 study to include an assessment of its active and reserve force. This report provides preliminary top-line active-duty Coast Guard estimates from the resulting RAND Military Workplace Study (RMWS), which invited close to 14,000 active-duty Coast Guard members to participate in a survey fielded in August and September of 2014.

Compared to the prior, DoD studies, the RMWS takes 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 Uniform Code of Military Justice (UCMJ) for Article 120 and Article 80 crimes. The survey measures of sexual harassment and gender discrimination, which together we refer to as sex-based military equal opportunity (MEO) violations, use criteria drawn directly from DoD Directive 1350.2. 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* (often referred to as rape), *non-penetrative*, and *attempted penetrative crimes*.
- *Sex-based MEO violations*, which consist of:
 - *Sexually hostile work environment*—a workplace characterized by persistent or severe unwelcome sexual advances, or verbal 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 crime-victim surveys, we classify service members as having experienced these crimes or MEO violations 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 a sexual assault or sex-based MEO violation 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 legal 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.

Subject to these caveats, we estimate with 95-percent confidence that between 180 and 390 active-duty Coast Guard members experienced one or more sexual assaults in the past year committed against them by other members of the Coast Guard, civilians, spouses, or others. Our best estimate in this range is that approximately 270 Coast Guard members were sexually assaulted in the past year, out of 39,112 active-duty members. This represents approximately 0.3 percent of active-duty men and 3.0 percent of active-duty women.

Our estimates suggest high rates of sex-based MEO violations against active-duty Coast Guard women, nearly a quarter of whom may have experienced a sex-based MEO violation in the past year. The majority of these violations involve experiences consistent with a sexually hostile work environment or gender discrimination. Our estimate of the prevalence of sex-based MEO violations against active-duty Coast Guard men is substantially lower, though still affecting about 1 in 22 men. These violations usually involve hostile work environments.

Although direct comparisons between the 2014 RMWS estimates and estimates of unwanted sexual contact and sexual harassment from the 2010 and 2006 surveys cannot be made, we cite indirect evidence that sexual assault and sexual harassment against active-duty Coast Guard men and women have declined since 2010.

This report includes preliminary top-line Coast Guard findings from the RAND Military Workplace Study, reporting on the broadest categories of outcomes (by gender and type of offense). These *top-line* results are likely to generate many questions about the details of the sexual assaults and MEO violations we have documented here. The RAND team will continue to analyze these and other topics in the winter of 2014–2015. Reports summarizing the findings from these analyses will be released in the late spring of 2015.

Introduction

In early 2014, the Department of Defense (DoD) asked the RAND National Defense Research Institute 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 Personnel (WGRA). At the request of the Coast Guard, RAND also included a sample of Coast Guard active-duty and reserve members in the 2014 study.

The 2014 RAND Military Workplace Study (RMWS) is based on a much larger sample of the military community than previous surveys—men and women, active-duty and reserve component, and including the four DoD military services plus the Coast Guard—and it is designed to more precisely estimate the total number of service members experiencing sexual assaults, 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 barriers to the receipt of support and legal services.

To meet its December 1, 2014, deadline for providing the White House a report documenting the Coast Guard's progress in its efforts to prevent and respond to sexual assaults and harassment, the Coast Guard requested that RAND report top-line estimates on the Coast Guard active-duty sample shortly after the survey field period closed. These *top-line* numbers refer to the broadest categories of outcomes and include only estimated numbers and percentages of Coast Guard members who experienced sexual assault, sexual harassment, or gender discrimination in the past year, by gender and type of offense.

In addition to the preliminary top-line numbers presented here, the RAND research team will conduct additional analyses on the survey data and will include those findings in reports that are planned for release in the late spring of 2015. These

reports will examine the experiences of victims with the response systems available to them, their rationale for either reporting or not reporting sexual assaults and harassment to their command or to victim service professionals, and the circumstances of their experiences (such as who harassed or assaulted them, where and when it happened, and whether they suffered retaliation). In addition, these reports will provide findings for the Coast Guard reserves and more detailed documentation on our methodology and study approach.

A New Approach to Counting Sexual Assault, Sexual Harassment, and Gender Discrimination

DoD has assessed service members' 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-duty forces. Since 2002, four "Workplace and Gender Relations Surveys," as they are known in 10 USC §481, have been conducted with active-duty forces (in 2002, 2006, 2010, and 2012).

The Coast Guard was included in these surveys through 2010 but was not assessed in 2012. In 2010, an estimated four percent of active-duty Coast Guard women had experienced an "unwanted sexual contact" in the prior year; less than one percent of men had such an experience. More than a quarter of women in the Coast Guard (26.4 percent) were thought to have experienced sexual harassment in the workplace during the same year, compared to 3.1 percent of men.

The results of the 2012 survey, which included only DoD services, suggested that more than 26,000 active-duty service members had experienced "unwanted sexual contact" 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. Some of these concerns and criticisms were unfounded. Although there are significant differences in our approach, the earlier WGRA survey did employ many of the same best practices for survey research that we have adopted for the RMWS (Office of Management and Budget, 2006). However, these concerns led some members of Congress to urge DoD to seek a new and independent assessment of the number of service members exposed to sexual assault or sexual harassment across the military.

In selecting RAND to conduct the 2014 assessment, DoD encouraged the RAND research team to redesign the approach used previously in the WGRA surveys if changes would improve the accuracy and validity of the survey results for estimating crimes and violations. In developing the new RMWS questionnaire, RAND researchers were conscious of the challenges of measuring sexual assault, sexual harassment, and gender discrimination. For example, seemingly slight changes in the descriptions

of these events can substantially influence survey results. Therefore, the RAND questions assessing sexual assault closely track the definitions and criteria listed in the Uniform Code of Military Justice (UCMJ) for Article 120 crimes. Likewise, our approach to measuring sexual harassment and gender discrimination was designed to closely align with the definitions of those violations as described in DoD directives, which themselves are closely aligned with federal civil rights law.¹

To better assess the prevalence of sexual assault, sexual harassment, and gender discrimination, we sought to develop simple sets of questions that could be used to correctly classify respondents' experiences according to the complex criteria set out in law. In addition to breaking down complex legal standards into a series of questions amenable to a self-administered survey format, we also sought to introduce technical changes to improve respondent comprehension of the survey questions, and in turn to enhance the validity of their answers.

The development of this new approach to measuring sexual assault and sex-based MEO violations was completed in close consultation with a scientific advisory board that included experts on civilian and military law, the assessment of sexual assault and sexual harassment, victim services, and survey methodology. In addition, RAND researchers consulted with many other experts, advocacy groups, and service members, including many who had experienced sexual assaults or sexual harassment, to ensure that each survey question assessed the legal construct it was designed to measure as accurately as possible and to ensure that respondents could reliably understand the meaning of each question.

Thus, the RMWS survey is designed provide a valid and precise estimate of the number of service men and women who have experienced sexual assault, sexual harassment, or gender discrimination in the past year. It more closely links survey definitions of sexual offenses to the law than the WGRA did. Other improvements in our survey approach include:

- **Simplifying question syntax to improve respondent understanding.** Earlier WGRA surveys used complex questions for the sexual harassment and unwanted sexual contact measures, questions that placed heavy demands on respondents' reading skills and comprehension. RAND's approach presented a series of questions asking about behaviorally specific experiences.
- **Clarifying question terminology.** The prior WGRA approach to measuring sexual assault relied on respondent's understanding of the complex concept of *consent* and did so without defining the term. The RAND questionnaire avoids use of the term consent for most definitions of sexual assault. Instead, we substituted the behaviorally specific forms of coercion described in Article 120 of the UCMJ that operationalize the concept of consent. Similarly, we limited use of the term *sexual* in defining the events that might qualify as sexual assault because sexual assaults that would qualify as crimes under Article 120 need not be asso-

ciated with sexual gratification if they are designed to humiliate or debase the person who is assaulted. Instead, the new RMWS survey inquires about sexual assaults using simple behavioral and anatomical descriptions that make no reference to whether or not the behaviors were “sexual.” Use of such behaviorally and anatomically specific language not only better matches the similarly specific language of Article 120, it has also been the standard approach for accurately assessing sexual assault in survey research conducted with civilian populations for decades (National Research Council, 2014). We believe these changes (and many others like them) clarify the meaning and intent of our survey questions and will have improved the reliability and validity of the respondents’ answers. Pretesting of the survey indicated that respondents found the items to be clear and easy to understand.

- **Reducing overcounting of offenses due to telescoping.** People often report crimes as occurring more recently than they really did—a tendency that is referred to as *response telescoping*. To guard against this phenomenon, RAND implemented several strategies in the RMWS survey that are designed to better orient respondents to the specific timeframe under consideration in each section of the survey.

All of the improvements in the RMWS survey are designed to provide reliable estimates of the numbers of service members who experienced sexual assault crimes and sex-based MEO violations, and to minimize errors due to overreporting (such as due to response telescoping) and underreporting (such as due to confusion over what counts as a crime). Nevertheless, as with all crime-victim surveys, we classify service members as experiencing these violations based on their memories of the event as expressed in their survey responses. Thus, despite our efforts to reduce many sources of error in our estimates, such errors cannot be completely eliminated in a self-report survey.

Fielding the RAND Military Workplace Study Survey

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 active-duty women and 25 percent of active-duty men in the Army, Navy, Air Force, and Marine Corps. In addition, we were asked to include a smaller sample of National Guard and reserve members sufficient to support comparisons of sexual assault and harassment between the active-duty and reserve forces. Active-duty Coast Guard members were sampled using the same proportions of men and women as the DoD services. Separate reports will describe results for Coast Guard reserve forces, all of whom were sampled in this study. 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 large sample for this study is particularly valuable for understanding the experiences of relatively small subgroups in the population. For instance, in the smaller 2012 WGRA, 117 DoD service men indicated that they experienced what the WGRA defined as “unwanted sexual contact.” This low number limits generalizations that can be made about the experiences of men in the military.

The large sample associated with the RMWS 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 DoD sample to compare rates of exposure to sexual assault and sexual harassment as measured using the 2014 RMWS questionnaire and the 2012 WGRA questionnaire. We achieved this by randomly assigning this portion of the sample to receive questions from the prior WGRA form, while the balance received a version of the new RMWS form.²

We did not conduct a comparable experiment using Coast Guard members, because the size of the Coast Guard and our sample of its members are not large enough to support precise estimates on two different versions of the questionnaire. Nevertheless, as discussed below, the results from the experiment with DoD service members can be used to draw inferences about how Coast Guard outcomes on the RMWS survey might have appeared had we instead used the older WGRA survey. Therefore, we can draw tentative conclusions about how rates of sexual assault and

sexual harassment may have changed for the Coast Guard since the 2010 and 2006 administrations of the WGRA.

A total of 14,167 members of the Coast Guard active-duty forces were randomly selected from a population of 39,112 Coast Guard members who met the study inclusion criteria requiring that they be age 18 or over, below the rank of a flag officer, and in service for at least six months. This follows the procedures used in prior WGRA surveys. Sampled service members were randomly assigned to receive either the long or short version of the new RMWS questionnaires.³ Both versions consisted of the screening items from the sex-based MEO violation module, the full sexual assault module, and demographic questions. The long form also included a longer sex-based MEO violation and gender discrimination assessment, questions about respondent psychological state, command climate, attitudes and beliefs about sexual assault in the military and the nation, and Coast Guard-specific questions that were added at the request of the Coast Guard.

The smartphone-compatible, web-based RMWS survey was fielded from August 7, 2014, to September 24, 2014. Before being fielded, the survey instrument underwent significant scientific and ethical review and regulatory approvals by RAND and by several DoD and Coast Guard authorities.⁴ Service members in the sample were recruited through a series of emails and postal letters sent to them throughout the study period, as well as through outreach activities conducted by RAND, the Office of the Secretary of Defense (OSD), and Coast Guard leadership.

The study design contains a range of changes in the survey methods relative to the prior WGRA designed to address critiques of that study. Although many of our innovations build on those developed for WGRA, the new survey collects more detailed information related to whether the event is consistent with criminal offenses under the UCMJ or violations of MEO. It also includes simpler questions, an experiment to compare the prior WGRA survey and the new RMWS, a larger sample, and an increase in the outreach and recruitment messages. We took three specific steps to increase response rates:

- **A shorter survey.** The RMWS survey that most respondents received is shorter than the prior WGRA and could be completed by most respondents in just eight minutes.
- **Maximizing responses to the key questions.** We placed the sexual assault and sexual harassment modules at the beginning of the survey to maximize the number of respondents answering these questions, since historically there has been considerable survey break-off before reaching these core questions.
- **Reaching junior enlisted members and others with limited access to computers.** We made the survey smartphone compatible and developed a communications plan that promoted the survey through many channels, including social media, public service announcements, and print news stories.

A total of 7,307 active-duty Coast Guard members completed the RMWS survey, for a response rate of 51.6 percent.⁵

Top-Line Results from the RAND Military Workplace Study

The Percentage of Active-Duty Coast Guard Men and Women Experiencing Sexual Assault and Harassment

Here we describe the top-line findings on the estimated percentage of active-duty Coast Guard men and women who experienced sexual assaults and sex-based MEO violations (including gender discrimination and sexual harassment) in the past year.⁶ Because we measure these offenses differently than they have been measured in the past, the estimates generated using the new RMWS assessment methodology cannot be directly compared with past WGRA results. The results in this section represent our preliminary estimates for the percentage of Coast Guard members who experienced events in the past year that would qualify as sex crimes under UCMJ Article 120 or Article 80, or sex-based MEO violations.

Sexual Assault

The RMWS survey contains a detailed assessment of sexual assault designed to correspond to the legal criteria specified in UCMJ Article 120. 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, and (b) if the offender used one of the coercion methods specified in the UCMJ as defining a criminal sex act.

Using results from the RMWS survey, we estimate that 0.69 percent of the active-duty Coast Guard population, or approximately 270 of its members, experienced at least one sexual assault in the past year (Table 1). Although this precise estimate includes a degree of uncertainty, we can estimate with 95 percent confidence that the total number of service members in our sample frame who experienced a sexual assault in the past year is between 180 and 390 out of a sample frame of 39,112 active-duty members.⁷ The estimated rate of sexual assault varied by gender: fewer than 1 in 100 men and 3 in 100 women. Each of these rates is significantly lower than our estimates for the percentage of active-duty DoD members who experienced past-year sexual assault.⁸

Table 1
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced Any Type of Sexual Assault in the Past Year, by Gender

Total (95% CI)	Male (95% CI)	Female (95% CI)
0.69% (0.46–1.00)	0.29% (0.09–0.71)	2.97% (2.25–3.83)

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 2). The instrument is structured so that if a respondent is classified as experiencing a penetrative sexual assault, they skip the subsequent questions about lesser offenses. Similarly, if they qualify as experiencing a non-penetrative sexual assault, they skip the final questions for attempted penetrative sexual assault. Thus, the instrument defines three mutually exclusive categories of sexual assault: *penetrative*, *non-penetrative*, and *attempted penetrative*.⁹

Penetrative sexual assaults are events that people often refer to as rape. 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 aggravated 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.¹⁰ The *attempted penetrative sexual assault* category applies only to those people who could not be classified with crimes that could be charged directly via Article 120 (*penetrative* or *non-penetrative sexual assaults*). That is, they indicated having experienced an event in which someone attempted to sexually assault them (charged via Article 80), but the person never made physical contact with a private area of their body (which would have

Table 2
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced a Sexual Assault in the Past Year, by Gender and Type

	Total (95% CI)	Male (95% CI)	Female (95% CI)
Any sexual assault	0.69% (0.46–1.00)	0.29% (0.09–0.71)	2.97% (2.25–3.83)
Penetrative sexual assault	0.36% (0.18–0.65)	0.17% (0.02–0.60)	1.44% (0.93–2.12)
Non-penetrative sexual assault	0.33% (0.20–0.50)	0.12% (0.02–0.35)	1.50% (1.03–2.12)
Attempted penetrative	0.00% (0.00–0.06)	0.00% (0.00–0.20)	0.03% (0.00–0.17)

NOTE: There were no cases of attempted penetrative assault among men in the sample.

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.

The distribution across type of assault was similar for men and women, with approximately half of all sexual assaults being classified as *penetrative sexual assaults*. This is a higher estimated rate of penetrative assaults than in 2010, when approximately 25 percent of all assaults against active-duty women and 21 percent of assaults against men were classified as penetrative. This difference likely results from differences in the RMWS measurement approach rather than from changes in the true prevalence of penetrative sexual assaults. Our analyses of the results of the DoD experiment in which some members received the old WGRA questions and some received the new RMWS questions suggests that the new questions identify more penetrative crimes than the old questions. However, given the results observed for the Coast Guard, women are estimated to be at eight-times the risk of past year *penetrative* sexual assault relative to men.

Sex-Based MEO Violations

As with sexual assault, our measures of sexual harassment and gender discrimination assess a number of specific types of violations. The *sexually hostile work environment* measure is designed to capture a workplace that includes sexual language, gestures, images, or behaviors that offend and anger service members or interfere with their ability to do their jobs. These events are counted only if the offensive behavior is either persistent (e.g., the respondent indicated the behavior continued even after the coworker knew that it was upsetting to others) or described by the respondent as severe (e.g., the behavior was so severe that most service members would have found it patently offensive).

Table 3 shows that this type of sexual harassment is commonly faced by active-duty service women across the Coast Guard; we estimate that one-fifth of women experienced upsetting or offensive sexual behavior in the past year that, under federal law or DoD directives, can be classified as an unfair condition of their employment in the military. While estimated total and male percentages experiencing a hostile work environment in the Coast Guard are significantly lower than found for DoD active-duty members, no significant differences are found between the experiences of women in the Coast Guard and at DoD. A more detailed breakdown of the specific behaviors that constituted a *sexually hostile work environment* will be included in the full RAND report in Spring 2015.

These behaviors that respondents indicate are persistent or severe may have several negative effects. Case law demonstrates that a hostile work environment can cause poor work performance or evaluation, separation from the employer, and mental health problems. This type of harassment may interfere with cohesion within military units, may degrade mission effectiveness, and may result in voluntary separations from service of qualified service members who find these behaviors to be an unacceptable con-

Table 3
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced a Sexually Hostile Work Environment in the Past Year, by Gender

Total (95% CI)	Male (95% CI)	Female (95% CI)
6.00% (5.22–6.85)	3.74% (2.94–4.68)	19.15% (17.05–21.39)

dition of employment (Moore, 2010; Rosen, 1998; Sims, Drasgow, and Fitzgerald, 2005). Such events undermine the rights of service members, most often women, to fair treatment within the Coast Guard. Careful tracking of this measure over time would provide a valuable gauge of progress in reducing sex-based violations of equal employment opportunity.

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 Coast Guard to attempt to coerce sexual behavior. These events are counted only if the respondent indicated that they had personal evidence that a workplace benefit or punishment was contingent on a sexual behavior. Hearsay or rumor was not considered sufficient evidence to count in this category. Unlike *sexually hostile work environment*, this type of sexual harassment is comparatively rare (Table 4). We estimate with 95 percent confidence that fewer than one percent of active-duty Coast Guard service members were harassed this way in the past year and that between 10 and 50 active-duty women had such experiences in the past year. Total, male and female percentages in the Coast Guard are significantly lower than the percent reporting *sexual quid pro quo* experiences among DoD active-duty members.

Although *quid pro quo* events are much rarer than those reflecting a *sexually hostile work environment*, they still represent a particularly serious category of offense. Because military leaders have a great deal of authority over service members’ lives, more than supervisors in the civilian workplace, misuse of their authority is a significant concern. In some cases, these acts are also likely to be crimes (e.g., under UCMJ Article 133 and Article 134), not merely civil infractions. Thus, although rare, it may

Table 4
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced Sexual Quid Pro Quo in the Past Year, by Gender

Total (95% CI)	Male (95% CI)	Female (95% CI)
0.07% (0.02–0.19)	0.00% (0.00–0.20)	0.50% (0.23–0.93)

NOTE: There were no cases of quid pro quo indicated by men in the sample.

be valuable to monitor these offenses over time to assess the progress of military policies in reducing their prevalence.

The two measures of MEO violations that we have discussed thus far, *sexually hostile work environment* and *sexual quid pro quo*, together constitute the legal constructs describing sexual harassment. Thus, our sexual harassment measure (Table 5) counts anyone who has experienced either subtype of harassment. 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 5 and Table 3 shows that the aggregate rate of *sexual harassment* is almost identical to the rate of *sexually hostile work environment*; this means that those women who indicated they experienced a *sexual quid pro quo* also indicated being sexually harassed under *sexually hostile work environment*. This in turn suggests that sexually hostile work environments may pose a high 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.¹¹ Whereas the estimated total and male percentages experiencing sexual harassment in the Coast Guard are lower than among active-duty members in the DoD, there is no significant difference between active-duty women in the Coast Guard and those in DoD services.

The *gender discrimination* measure assesses incidents in which the respondent indicated that he or she was the recipient of derogatory comments or mistreatment on the basis of gender. To count in this measure, respondents must indicate that the mistreatment also resulted in harm to their military career (i.e., adversely affect their evaluation, promotion, assignment). We estimate that *gender discrimination* affected approximately 1 in 8 active-duty Coast Guard women in the last year and 1 in 95 men (Table 6). While the total percentage in the Coast Guard is lower than the percent reporting *gender discrimination* among DoD active-duty service members, there is no significant difference between either men or women in the Coast Guard and their peers in DoD.

The concept of *gender discrimination* is particularly challenging to assess in a self-report survey. Unlike sexual harassment, many forms of *gender discrimination* occur without the victim's awareness. Because these estimates are based on self-reports, they cannot count incidents in which discrimination occurred without the respondent

Table 5
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced Sexual Harassment in the Past Year, by Gender

Total (95% CI)	Male (95% CI)	Female (95% CI)
6.02% (5.24–6.88)	3.75% (2.94–4.69)	19.19% (17.09–21.43)

Table 6
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced Gender Discrimination in the Past Year, by Gender

Total (95% CI)	Male (95% CI)	Female (95% CI)
2.62% (2.12–3.19)	1.05% (0.59–1.72)	11.75% (10.12–13.55)

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 are other legitimate causes of their adverse work experience.

In spite of these interpretational difficulties, the fact that one out of every eight women perceived themselves to be treated unfairly by the Coast Guard because of their gender represents a significant problem. This perception may make it hard to retain women in the military (Defense Equal Opportunity Management Institute, 2008; DMDC, 2009) and may make it less likely that women aspire to senior leadership roles (Hosek et al., 2001). To the extent that the broader public hears from women who believe they were treated unfairly in the Coast Guard, it may affect the Coast Guard's ability to recruit service members who put a high value on working in an equitable environment. Thus, perceptions about *gender discrimination* are an important target for intervention, and this measure should be valuable for assessing Coast Guard policy and progress over time.

The three types of sex-based MEO violations (*sexually hostile work environment*, *sexual quid pro quo*, and *gender discrimination*) can be thought of as belonging to a broader construct: *any sex-based MEO violation* (Table 7). *Any sex-based MEO violation* totals are higher than the total for *sexually hostile work environment*, suggesting that many who indicate they experienced *gender discrimination* did not also indicate experiencing a *sexually hostile work environment*. On the other hand, because this measure combines several distinct phenomena that are likely to be affected by different types of policy or educational interventions, this overall measure may not be ideal for evaluating Coast Guard 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. For this measure, too, the total and male percentages

Table 7
Estimated Percentage of Active-Duty Coast Guard Members Who Experienced Any Sex-Based MEO Violation in the Past Year, by Gender

Total (95% CI)	Male (95% CI)	Female (95% CI)
7.28% (6.40–8.23)	4.51% (3.60–5.57)	23.32% (21.10–25.66)

in the Coast Guard are lower than the percent reporting any sex-based MEO violation in the DoD active-duty population, but there is no significant difference for active-duty women.

Time Trends on Unwanted Sexual Contact and Sexual Harassment Measures

Unwanted sexual contact and sexual harassment were last measured among Coast Guard active-duty members in 2010 and before that in 2006. At that time, the estimated rates of these offenses were as reported in Table 8. The RMWS survey adopted a different approach to counting service members who have experienced sexual assault or sex-based MEO offenses in the past year than was used in these prior administrations of the WGRA, so the numbers reported in this report are not directly comparable with the earlier WGRA results.

In the DoD sample of the RMWS, we conducted an experiment that allowed us to compare rates of unwanted sexual contact and sexual harassment as measured using the prior WGRA questionnaire with rates of sexual assault and sexual harassment as measured on the new RMWS questionnaire. These comparisons demonstrated that in the DoD sample, the RMWS led to estimates of sexual assault that were comparable to those estimated using the WGRA for men and women. It also estimated rates of sexual harassment for women that were comparable to those measured with the WGRA. The RMWS survey counted substantially larger numbers of men as having experienced sexual harassment in the past year than did the WGRA form.

Although there is no guarantee that the same relationships between WGRA and RMWS estimates would hold for the Coast Guard, it is reasonable to think they might. Under the assumption that they do, then we would conclude that the 2014 Coast Guard estimates using the RMWS questionnaire are comparable to what we

Table 8
Estimated Percentages of Unwanted Sexual Contact and Sexual Harassment from the 2006 and 2010 WGRA Surveys of Active-Duty Coast Guard Members

	Women	Men
Unwanted Sexual Contact		
2006	3.22%	0.77%
2010	3.99%	0.73%
Sexual Harassment		
2006	30.86%	4.71%
2010	26.36%	3.12%

would have found had we used the WGRA as in past years, with the exception of the substantially larger numbers of men estimated to have experienced sexual harassment under the RMWS measures. As such, our 2014 estimates of the percentages of men and women experiencing sexual assaults might indicate declining rates of sexual assault compared to the 2010 and 2006 WGRA numbers. Similarly, our estimates of the numbers of men and women who experienced sexual harassment (chiefly a hostile work environment) in 2014 would also appear to suggest a reduction in these problems since 2010.

Implications of the Top-Line Results

Our estimates suggest that between 180 and 390 active-duty Coast Guard men and women were sexually assaulted in the past year out of 39,112 active-duty members, or approximately 0.3 percent of active-duty men and 3.0 percent of active-duty women. These include assaults committed by other members of the Coast Guard, civilians, spouses, or others. Our best estimate in this range is that approximately 270 Coast Guard members were sexually assaulted. These rates are significantly below those for men and women in the overall DoD active-duty population. These are one-year rates, so over a several year career the percentage of Coast Guard members who have experienced at least one sexual assault will necessarily be higher. It is also important to note that these figures are not a count of sexual assaults, but rather of service members who indicated that they experienced one or more sexual assaults. The actual number of sexual assaults in the past year will be higher, since some people will have been assaulted more than once.

Sexual harassment (particularly a sexually hostile workplace) is more common than sexual assault in the Coast Guard, with 19.2 percent of women and 3.7 percent of men indicating experiences in the past year that would qualify. Whereas this rate of sexual harassment for men is lower than found among active-duty men at DoD, the same is not true for women. Moreover, whereas estimated rates of sexual assault and sexual harassment for the Coast Guard are the same or better than found for DoD active-duty members taken as a whole, there is one DoD service with significantly lower estimated rates of sexual harassment than found for the Coast Guard.

We estimate that nearly a quarter of active-duty women experienced a sex-based MEO violation (chiefly hostile work environment or gender discrimination) in the past year (23.3 percent). Because this is a one-year rate, the percentage of women who have such experiences over their careers in the Coast Guard will necessarily be higher. By definition, these experiences are unwanted, and they are offensive, humiliating, and interfere with women's equitable treatment in the workplace. At such high rates, sexual harassment and other MEO violations could affect unit cohesion, degrade mission effectiveness, and result in voluntary separations from service of qualified service members who find these behaviors to be an unacceptable condition of employment (Moore, 2010; Rosen, 1998; Sims, Drasgow, and Fitzgerald, 2005).

Although direct comparisons between the 2014 RMWS estimates and estimates of unwanted sexual contact and sexual harassment from the 2010 and 2006 surveys cannot be made, we can cite indirect evidence that sexual assault and sexual harassment against active-duty Coast Guard men and women has declined since 2010.

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. As noted before, a thorough forensic investigation would likely discover that some of the events identified as crimes really were not crimes, and that some events not counted as crimes were. Moreover, it is possible that the individuals who did not respond to the survey have either higher or lower rate of sexual assaults than those who did respond, even after applying analytic weights designed to minimize those differences. We are conducting ongoing research, including additional data collection among DoD service members who did not respond to this survey, to better quantify the likelihood and direction of any such errors.

Also, because we omitted Coast Guard members with less than six months of service from our sample, 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 6 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-duty service. Again, in later reports, we will explore the timing of these events.

The 2014 RMWS survey was designed to address some of the criticisms made of 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. 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 characteristics that are 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. In spite of these improvements, the RMWS has confirmed some of the core findings of the earlier WGRA surveys. In particular, several policymakers and critics have expressed concern that the actual rate of sex offenses in the military was being overstated by imprecise estimates provided by the *unwanted sexual contact* question—suggesting that the top-line numbers included many minor, or even accidental, physical contacts. Our estimates suggest that the prior WGRA measures and methods actually *underestimate* penetrative sex offenses in the past year.

Next Steps

This report describes only preliminary top-line findings for the Coast Guard from the RMWS. These top-line results are likely to generate many questions about the details of the sexual assaults and sex-based MEO violations that we have documented here. The RAND team will analyze these and other topics in the winter of 2014–2015, and we will provide detailed analyses of them, along with public reports on the methodology and the main findings, in the late spring of 2015. These reports will include findings on:

- rates of sexual assault, sexual harassment, and gender discrimination among
 - DoD active-duty and reserve component members
 - Coast Guard active-duty and reserve component members
- service members' experiences with support and prosecution systems available to those who report sexual assaults or MEO violations
- contextual and risk factors associated with sexual assaults and MEO violations
- results from investigations designed to understand the reliability and validity of our survey estimates
- recommendations for future surveys of sexual assault and sexual harassment in the military.

Appendix: A Brief Overview of RMWS Weighting Procedures

Respondent data were weighted to ensure that our analytic sample was representative of the active-duty Coast Guard population on key characteristics. Such weights are standard with all professional survey research to reduce bias in the survey estimates (Little and Rubin, 2002; Schafer and Graham, 2002). We used weights designed to make the analytic sample representative on a broader range of factors than were used in the 2010 analyses. These additional factors take into account information about socio-demographic characteristics (e.g., age, race), occupation (e.g., respondent's occupation code, percent of respondent's occupation code that is male, deployment history, time served in the military), and survey fieldwork measures (e.g., missing email address, missing mail address, number of letters returned as undeliverable, percentage of emails that were returned as undeliverable). The distribution of the weighted respondents matches the full Coast Guard population across the key reporting categories of gender and pay grade (see Table A.1). The weights used on the new RMWS assessments further balance the sample within each reporting category on those key variables associated with sexual assault, sexual harassment, and gender discrimination. To the extent that these key variables are also associated with whether service members respond to the survey, this approach reduces nonresponse bias in the population estimates of sexual assault, sexual harassment, or gender discrimination.

Data analyses included estimation of outcomes across all respondent samples and for the different reporting categories. For categorical variables, weighted percentages and standard errors were computed with SAS PROC SURVEYFREQ. The variance of weighted estimates was calculated using the Taylor series method. These analyses were conducted in SAS version 9.3. Comparison of weighted proportions across two groups (e.g., comparing an estimate from the Coast Guard sample and the DoD sample) were done using tests that appropriately accounted for the survey weighting in computing point estimates and respective standard errors. To control the familywise error rate, some significance tests apply a Bonferroni correction for multiple testing. Specifically, we ensured that the familywise error rate for each gender by services table, containing six independent hypothesis tests, is below .05. When providing counts of individuals in

the population, this report rounds to the nearest 500 to avoid implying greater precision than actually exists for these estimates.

Table A.1
Balance of Weighted Respondents to the Full Coast Guard Active-Duty Sample

Reporting Category	Population Count	Percent of Population	RMWS Weighted Sample
Female, Coast Guard, Junior Enlisted	2,515	6.43%	6.43%
Female, Coast Guard, Junior Officer	900	2.30%	2.30%
Female, Coast Guard, Senior Enlisted	2,047	5.23%	5.23%
Female, Coast Guard, Senior Officer	390	1.00%	1.00%
Male, Coast Guard, Junior Enlisted	9,643	24.65%	24.65%
Male, Coast Guard, Junior Officer	2,959	7.57%	7.57%
Male, Coast Guard, Senior Enlisted	18,298	46.78%	46.78%
Male, Coast Guard, Senior Officer	2,360	6.03%	6.03%
TOTAL	39,112		

NOTE: *Junior Enlisted* includes personnel in pay grades E-1 through E-4. *Senior Enlisted* includes personnel in pay grades E-5 through E-9 and W-1 through W-5 (warrant officers). *Junior Officer* includes personnel in pay grades O-1 through O-3, and *Senior Officer* includes personnel in pay grades O-4 through O-6.

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Notes

¹ DoD Directive 1350.2 defines military equal opportunity (MEO) violations with respect to sex and other protected characteristics, and the survey questions closely align with these definitions. However, this DoD Directive is based on federal civil rights laws (e.g., Title VII of the Civil Rights Act of 1964). One difference between MEO and the federal definitions of equal employment opportunity violations is that MEO defines all persistent or severe harassment based on sex as an unfair condition of military employment.

² Multiple versions of the RAND form were used to minimize respondent burden and costs to the services. It is not necessary to collect general experiences and attitudes from the entire sample in order to derive precise results, and doing so would be 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 are endorsed relatively rarely (such as past year sexual assault) must be asked of the largest number of people to arrive at precise estimates, whereas items endorsed by large numbers (such as attitudinal questions), need only be asked of a comparatively small sample.

Thus, all sampled members were randomly assigned to receive one of four forms:

1. A "long form" consisting of a sexual assault module; a sex-based MEO violation module, which assesses 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 some demographic questions.
3. A "short form" consisting of the full sexual assault module, the screening items only 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," which included questions from the 2012 WGRA, including the unwanted sexual contact, sexual harassment, and gender discrimination assessments from that survey. No members of the Coast Guard received this form.

³ Assignment to different conditions was not done with equal probability across survey types. Instead, we selected samples of approximately 6,250 for the long form, and 7,917 for the short and medium forms.

⁴ RAND's Institutional Review Board reviewed and approved the study procedures and survey instrument to ensure that it met all human subjects' protection protocols. The Office of the Under Secretary of Defense for Personnel and Readiness (OUSD/P&R), and the Coast Guard's Institutional Review Board conducted second-level review of human subjects' protections. The study procedures, or portions of them, also received reviews and approvals by the OSD Office of General Counsel, the Chief Privacy Officer of OSD and the Joint Staff, the Defense Manpower Data Center (DMDC) Chief Privacy Offi-

cer, OUSD/P&R Records management, and the Joint Chiefs of Staff. The project received licensing approval from the Washington Headquarters Service after receiving approvals from the Office of the Under Secretary of Defense for Personnel and Readiness. In addition, we solicited multiple rounds of reviews and comments with our scientific review board, and from researchers and leadership from each Service’s sexual assault prevention and response office.

⁵ Our calculation of the 51.6 percent Coast Guard active-duty response rate uses the most conservative of the American Association of Public Opinion Research definitions of response rates (RR1). The design-weighted version of this RR1 metric for the Coast Guard is 50.9 percent. Because respondents completed different forms, the total number of responses on each of the key survey modules varied as follows:

Number of Active-Duty Coast Guard Respondents Who Completed Each Survey Module			
Survey Module	Sample Size	Respondents	Response Rate
RMWS Sexual Assault Outcomes	14,167	7,307	51.6%
RMWS MEO Violation Outcomes	10,209	5,222	51.2%

⁶ Respondents were asked to report events that occurred between the date they took the survey, and the same date one year earlier. We refer to this time period as the *past year*.

⁷ 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 active-duty service members 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 = .95). Larger samples allow for narrower confidence intervals.

⁸ For these comparisons with DoD results and those that appear later in this report, we refer DoD estimates found in the companion volume: *Sexual Assault and Sexual Harassment in the Military: Top-Line Estimates for Active-Duty Service Members from the 2014 RAND Military Workplace Study*. For each of these comparisons, we use a $p < .05$, Bonferroni corrected for a two degree of freedom test.

⁹ 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 that will be released later.

¹⁰ *Private areas* were defined to include the buttocks, inner thigh, breast, groin, anus, vagina, penis, and testicles.

¹¹ In the field of epidemiology, the association between a risk factor and an outcome is often described in terms of a relative risk ratio, or the ratio of the probability of an event occurring in an exposed group relative to that in a group not exposed. Relative risk ratios of 5 or 10 are considered large (Macmahon and Pugh, 1970). Our results suggest that the relative risk ratio of quid pro quo as a function of hostile work environment is 121 in the Coast Guard sample, which is comparable to the association found between hostile environment and quid pro quo in the much larger DoD sample.

Abbreviations

CI	confidence interval
DoD	Department of Defense
DMDC	Defense Manpower Data Center
MEO	military equal opportunity
OSD	Office of the Secretary of Defense
OUSD/P&R	Office of the Under Secretary of Defense for Personnel and Readiness
RMWS	RAND Military Workplace Study
RR1	Response Rate 1 (as defined by the American Association of Public Opinion Research)
SAPRO	Sexual Assault Prevention and Response Office
UCMJ	Uniformed Code of Military Justice
USC	United States Code
WGRA	Workplace and Gender Relations Survey of Active-Duty Personnel

