The U.S. Army’s Deputy Chief of Staff, G-1, asked RAND Arroyo Center to extend previous RAND Corporation analyses that produced estimates of sexual assault risk and sexual harassment risk across installations and commands. The results of these extended analyses showed considerable variation in the risk of sexual assault and sexual harassment across groups of soldiers, primarily among Army women—at installations, commands, and in career fields—and identified characteristics of groups where risk was higher. The results also showed considerable stability in sexual assault risk and sexual harassment risk among groups of soldiers over time. This research brief provides an overview of the principal findings of this analysis and associated recommendations.

Variation in Risk

Variation in sexual assault risk and sexual harassment risk across the Army suggests where to target prevention efforts. One goal of this research was to determine whether the risk of sexual assault and sexual harassment varied by the installation where a soldier is based, the commands in which a soldier serves, or a soldier’s job function. The research team estimated risk in two ways. The first was total risk, which is an estimate of the proportion of soldiers in a group who were sexually assaulted or sexually harassed during the period of interest; in this case, the period was from August 2017 to July 2018.

The average total risk to all women in the Army during the period was 5.8 percent. But some groups of women faced considerably higher total sexual
assault risk. For example, at the installation with the highest risk of sexual assault, Fort Hood, total sexual assault risk was estimated at 8.4 percent, suggesting that about one in 12 Army women who served there were sexually assaulted during the study year. Fort Bliss (7.6 percent), Fort Riley (7.4 percent), and Fort Campbell (7.3 percent) had the next-highest total sexual assault risk estimates for women. In contrast, the Pentagon was associated with the lowest total risk estimate for women, at 1.8 percent.

Higher estimates of total sexual assault risk were also identified in select commands and career fields. Most of the commands with the highest total risk for women are combat units. Among them are the 1st Cavalry Division (9.3 percent total risk) and Headquarters, III Corps (8.1 percent total risk), both of which are located at Fort Hood, and the 1st Armored Division (8.5 percent total risk), which is based at Fort Bliss. Career fields in which women had the highest total sexual assault risk included field artillery, Corps of Engineers, air defense artillery, and equipment maintenance and repair. In fact, women in field artillery careers have the highest total sexual assault risk (10.6 percent total risk) of any group of soldiers evaluated.

One explanation for these results could be that women in these groups share personal characteristics that are associated with higher or lower total sexual assault risk in the Army. For example, Fort Hood and Fort Bliss have large numbers of young, unmarried, less-educated, and junior-ranking soldiers who are at higher risk of sexual assault throughout their service. This raises the question of whether higher-risk groups of soldiers (e.g., at installations) have higher-risk soldiers assigned to such groups or whether these personnel would experience lower risk if stationed elsewhere.

The research team examined this by calculating adjusted risk, the second way in which risk was estimated. This is the risk over or under the risk predicted for personnel at each installation based on their age, deployment history, and 20 other personnel and service history risk factors. Again, across installations, Fort Hood had the highest estimated adjusted risk among Army women. Fort Bliss also had relatively high adjusted risk, which suggests that women at these bases have higher sexual assault risk than they would be expected to have if they were assigned to other similar Army bases (see Figure 1).

The discussion thus far has focused on the risk of sexual assault for women. Sexual harassment is more common than sexual assault, but the results also showed that sexual harassment risk is highly correlated with risk of sexual assault. Therefore, bases and other groups with high sexual assault risk for women have high sexual harassment risk for women as well, and those with low sexual assault risk for women have low sexual harassment risk for women.

Army men had a relatively low prevalence of sexual assault in the study period (0.6 percent, according to this study) but had a higher prevalence of sexual harassment: an average total risk of 6.5 percent. There were some notable differences among groups. Total sexual harassment risk for Army men ranged from a low of 2.8 percent for men in operational support career fields to a high of 8.8 percent for men in the 82nd Airborne Division. Adjusted sexual harassment risk for men ranged from –1.6 percent for men in recruiter and special assignment career fields to 1.8 percent for men in the Defense Language Institute Command. Therefore, a man with average sexual harassment risk in the Army (6.5 percent) would be expected to have risk of 8.3 percent at the Defense Language Institute, and this same soldier would be expected to have a risk of 4.9 percent if he had a recruiter or special duty assignment.

These findings, which indicate variation in risk of sexual assault and risk of sexual harassment, provide information that the Army could use to target prevention and response services to locations and career fields where such services could have the greatest effect—where total risk of sexual assault is high and where large numbers of personnel are stationed. For example, sexual assaults at five bases (Forts Hood, Bliss, Riley, Campbell, and Carson) accounted for 34 percent of the total number of women in the Regular Army estimated to have been assaulted in the study period. A targeted prevention program that reduced total risk to women at these five bases would have a measurable impact on Army-wide sexual assault prevalence.

**Recommendation 1:** To optimize reductions in Army sexual assault rates, new or supplementary prevention programs that cannot be provided to the entire Army should be targeted to those bases, commands, and career fields that have large numbers of soldiers and high total sexual assault risk.
The Connection Between Sexual Harassment and Sexual Assault

Sexual harassment risk can serve as an early indicator of sexual assault risk. Sexual harassment is much more common in the Army than sexual assault is; sexual harassment tends to occur in more-public settings among larger groups of soldiers, and more people observe these incidents. Research also shows that total sexual assault risk and total sexual harassment risk are highly correlated, meaning that groups of soldiers with high (or low) risk of sexual assault also have high (or low) risk of sexual harassment. Moreover, risk factors for sexual assault and sexual harassment are similar.

However, measuring sexual harassment risk is likely easier, cheaper, and potentially faster than measuring sexual assault risk, and it could provide nearly all of the information about sexual assault risk needed to develop tailored intervention programs. Sexual harass-
ment risk is already routinely measured as part of the Defense Equal Opportunity Climate Survey (DEOCS), which is administered by law to every unit shortly after a change of command and then periodically thereafter. The same survey does not assess sexual assault risk in a comprehensive way.

**Recommendation 2:** The Army should use routinely collected survey data from the DEOCS or other surveys to more rapidly identify units, commands, bases, career fields, or other groups of soldiers with high or rising risk of sexual assault and sexual harassment. The Army should consider investing some resources in developing surveys to serve this purpose.

**Designing Prevention Efforts**

Characteristics of groups associated with high or low adjusted risk can inform the design of prevention efforts. The previous sections talked about groups of soldiers that experience higher risk of sexual assault or sexual harassment by virtue of the location of their assignment, their command, or the career field in which they work—information that the Army can use to target prevention programs.

But more information is needed to develop programs that are tailored to these groups; in particular, insight is needed into why these groups tend to have higher estimated risks. Therefore, one of the objectives of this project was to identify characteristics that distinguish these groups from soldiers assigned to locations, commands, or career fields that experience lower risk. The results suggest that there are areas where interventions designed to reduce sexual assault and sexual harassment can be targeted.

An analysis of group characteristics identified several that were associated with sexual assault risk and sexual harassment risk for women and with sexual harassment risk for men. Climate is one of these characteristics. Groups of soldiers that have better supervisor and unit climate scores tend to have lower adjusted sexual assault risk and sexual harassment risk scores, while groups with worse climate scores have higher adjusted risk.

**Recommendation 3:** The Army should consider developing climate-improvement interventions for commands, bases, and career fields with high adjusted sexual assault risk or high adjusted sexual harassment risk and poor climate scores.

Higher operational tempo (the average number of months deployed during the past year) and higher separation rates (within 18 months of joining the military) are also associated with higher adjusted risk of sexual harassment for men and women. Furthermore, it is possible that higher separation rates could be related to working in locations with worse climates. Soldiers who have a negative perception of their work climate might also believe that negative behaviors are tolerated and, as a result, be less likely to continue their military careers.

Additional group characteristics were associated with higher adjusted risk for sexual assault among women but not men. Most notable among these is that groups with large proportions of soldiers with combat arms occupations were associated with higher adjusted risk of sexual assault for women. But this association between combat arms and adjusted sexual assault risk was not true for men. There are, however, exceptions to the general association of combat arms to women’s
sexual assault risk that might provide valuable lessons on creating combat arms environments that minimize risk to women.

In particular, whereas multiple infantry divisions are associated with elevated adjusted risk of sexual assault or sexual harassment for women, the 2nd Infantry Division is associated with an especially low adjusted risk of sexual harassment for Army women, possibly indicating that there is a protective effect associated with that command. Understanding what those differences are could help the Army to promulgate the protective factors that produce these benefits at other commands.

**Recommendation 4:** Investigate the differences in soldiers’ experiences in similar groups with different risk profiles—such as the 2nd and 4th Infantry Divisions—to understand what differences in work life, social life, culture, or climate might be contributing to differences in women’s sexual assault and sexual harassment risk exposure. Then, test whether candidate risk factors generalize in explaining differences in risk elsewhere in the Army.

**Stability of Risk**

The risk of sexual assault and sexual harassment was consistent over the two- and four-year periods that were examined, which creates opportunities for prevention. Bases with high sexual assault risk in 2014 (total and adjusted risk) tended to also have high sexual assault risk in 2016 and 2018. Similarly, those bases with low sexual assault risk in 2014 (total and adjusted) tended to also have low sexual assault risk in 2016 and 2018. This suggests that newly assigned commanders might assume leadership over groups of soldiers with a historical pattern of sexual assault risk, such as groups with historically high sexual assault risk.

Despite this overall consistency, some bases experienced notable shifts in sexual assault risk. For example, Landstuhl Regional Medical Center showed a marked increase in adjusted sexual assault risk for women between 2016 and 2018. The adjusted sexual assault risk at Fort Hood increased in 2018 after consistently lower estimates in 2014 and 2016. Other bases, such as Fort Jonathan Wainwright, appeared to have lower risk in 2018 compared with earlier estimates. Exploring why these changes might have occurred could provide commanders with information that could reduce sexual assault prevalence in their commands.

**Recommendation 5:** Conduct case studies of bases where adjusted sexual assault risk to women appears to have changed substantially between 2014 and 2018 and identify candidate causes of these changes. Then, test the generalizability of these causes for explaining sexual assault risk among other groups of soldiers across the Army.

The fact that risk at a base or command is likely similar to its risk two years ago (or four years ago) presents an opportunity to provide commanders with actionable information on risks faced by their commands of which they might be unaware, yet for which they will be held accountable. Commanders will appreciate leading indicators for any behavioral problems emerging within their commands, but leading indicators for sexual assault and sexual harassment have been challenging to identify. In the absence of good leading indicators, it would nevertheless be useful for commanders to know whether their units have histories of especially elevated risks of sexual assault or sexual harassment.

**Recommendation 6:** Share historical sexual assault risk and sexual harassment risk information with unit commanders. Doing so can forewarn commanders of known problems that are likely to persist within their units. This information can sensitize them to the possible need for special prevention measures and prepare these commanders to address problems quickly.

**Conclusions**

The results of this research provide a better understanding of the risk of sexual assault and the risk of sexual harassment in the Army. Targeting prevention efforts to installations, commands, and career fields that have the highest estimated total risk levels can guide resource allocation. The results also indicate that unit and leadership climate are associated with risk: Interventions to improve workplace climate could reduce sexual assault risk and sexual harassment risk. The bottom line is that targeted outreach that successfully reduces sexual assault risk and sexual harassment risk in higher-risk groups could yield measurable reductions in sexual assault risk and sexual harassment risk Army-wide.
Notes


2 The analysis uses Department of Defense administrative data, Army administrative and personnel data, and survey data from the 2014 RAND Military Workplace Study and the 2016 and 2018 Workplace and Gender Relations Survey of Active Duty Personnel.