MODERATORS OF GENDER-BASED BARRIERS IN THE U.S. ARMY:
HOW ENLISTED WOMEN INCREASE THEIR OWN RECRUITMENT,
PROMOTION, PARTICIPATION, RETENTION, AND INTEGRATION

BY

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ABSTRACT

In their women’s integration plan, the U.S. Army (2016b) called for studies to identify and “develop strategies to overcome [gender] barriers” (p. 13) women encounter, without an institutional understanding of gender retention differences despite studies conducted by Asch, Miller, and Weinberger (2016) and others. During the Army Gender Integration Study (GIS), Arnhart et al. (2015) identified stereotypes and prejudices found in gender research such as that of Tepe, Yarnell, Nindl, Van Arsdale, and Deuster (2016) and Segal, Smith, Segal, and Canuso (2016). Women encounter career barriers in the Army (Arnhart et al., 2015) without a shared understanding (Tepe et al., 2016) of what active strategies other women use as moderators and when to employ them (Segal et al., 2016). This study was designed to understand and explain how moderators of gender-based barriers contribute to enlisted women’s increased recruitment, participation, retention, integration, and promotion to the highest enlisted rank of Sergeant Major in the Army. Eagly and Karau’s (2002) role congruity theory (2002) and Glick and Fiske’s (1996) ambivalent sexism theory are foundational to the study. A transformative, mixed methods, multiple-case study research design was used. Archival survey datasets provided by the Office of People Analytics (OPA; 2017), artifacts, and semi-structured interviews provided evidence to address the research questions. The population included all women selected for promotion to the rank of Sergeant Major in the U.S. Army, of which a purposeful sample of 12 women was drawn from the annual class of 62 women students attending the U.S. Army Sergeants Major Academy. Kruskal-Willis H, Mann-
Whitney $U$, and chi-square tests were used during quantitative analyses of archival datasets followed by qualitative analysis of interview transcripts. Convergent integration of quantitative results with qualitative interview results aligned with the quantitative evidence of gender barriers encountered between groups of women and the qualitative moderators described by participants during interviews. Findings include moderators of gender-based barriers used by women to support their promotion, participation, and integration. Recommendations include the linkage of gender, equal opportunity, and ethics training to message the sources of cultural stereotypes contributing to gender-based barriers to change behaviors toward women in the Army.
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<tr>
<td>CJCS</td>
<td>Chairman of the Joint Chiefs of Staff</td>
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<td>DACOWITS</td>
<td>Defense Advisory Committee on Women in the Services</td>
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<td>DoD</td>
<td>Department of Defense</td>
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<td>DMDC</td>
<td>Defense Military Data Center</td>
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<tr>
<td>DMDCRS</td>
<td>Defense Military Data Center Reporting System</td>
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<td>IRB</td>
<td>Institutional Review Board</td>
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<td>MLDC</td>
<td>Military Leadership Diversity Commission</td>
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<td>ODMEO</td>
<td>Office of Diversity Management and Equal Opportunity</td>
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<td>UNSCR</td>
<td>United Nations Security Council Resolution</td>
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<td>WGRS</td>
<td>Workplace and Gender Relations Survey</td>
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I want to dedicate this to the incredibly strong women that have influenced my life and this study. My Army Strong wife, Wendy, who can and has done it all when I was away and sometimes when I was home. My mother, Jeanette Adams, an auto
industry line worker in the 1970s in Michigan who became a supervisor on the male-dominated auto industry shop floor. My Aunt Sharon Van Bibber and Aunt Janice Reynolds both demonstrated inspirational strength and true grit in their way. My Grandmother, June McDonald that raised three incredible children and continues to remain independent as she approaches 100 years of age. Finally, this is dedicated to all the incredible women enlisted, commissioned, and government service from all military Services, and branches of the U.S. Army that I have served with during my nearly 30 years of active duty service.
CHAPTER 1: INTRODUCTION TO THE STUDY

It is the duty and responsibility of Army leaders as professionals to develop subordinates while encouraging equal opportunity, fairness, and inclusiveness. To aid the development of subordinates, the doctrinal framework described in the U.S. Army leader development field manual includes core leader competencies and attributes (U.S. Army, 2015b). Army leaders are required to create a positive environment, and the Army command policy (U.S. Army, 2014b) stipulates that leaders must act without favor or discrimination. The 2015 Office of the Under Secretary of Defense, Personnel and Readiness (OUSD/P&R, 2016b) annual population representation report show that 17\% of U.S. Army active enlisted accessions are women. Despite U.S. Census Bureau (2017) data indicating near gender parity in the U.S. population and around the globe as maintained by United Nations (2017) population data, as of 2015, women have remained an underrepresented status, keeping the male-dominated tradition of the U.S. Army (OUSD/P&R, 2016b). Attrition of women throughout a career in the Army results in a 50\% reduction in women’s participation and representation. Conversely, the retention of men increases by 10\% in the active Army component (OUSD/P&R, 2016a). Understanding the moderators of gender-based barriers used by women in the U.S. Army that reach the pinnacle of enlisted member ranks will positively affect the retention and participation of women in the Army.

The U.S. Army implementation plan 2016-01 (Army Gender Integration) is the directive for U.S. Army integration of women (U.S. Army, 2016b). Integration of women
into career fields previously only available to men will require a cultural change to address the many gender-based stereotypes and prejudices identified by Arnhart et al. (2015) during the 2015, U.S. Army TRADOC Analysis Center (TRAC) Gender Integration Study (GIS). Execution of the Army integration plan is also dependent on the ongoing professional development and the enforcement of policies and procedures that demand professionalism (U.S. Army, 2016b). The execution order signed by the Chief of Staff of the Army directs the Deputy Chief of Staff for personnel to conduct “gender integration studies [that] identify, understand, and mitigate cultural issues associated with gender integration to develop strategies to overcome these barriers supported by ARI [Army Research Institute]” (p. 13). When combined, the research contributed to the body of knowledge related to these directed studies.

Multiple authors of research methods provide overviews and introductions like Creswell (2014) and Patton (2015). Other authors expand on specific research methods like the mixed methods framework of Plano Clark and Ivankova (2016), Merten’s understanding of transformative research (2015), and Yin’s (2018) specialization of case study research. Drawing from multiple experts in the field of research design, the research design for this study is a transformative, mixed methods (Plano Clark & Ivankova, 2016), multiple case study design (Creswell, 2015; Yin, 2018) to understand behaviors and strategies used by women in the U.S. Army to “mitigate cultural issues associated with gender integration” (U.S. Army, 2016b, p. 13). Descriptions of the experiences of current and former students of the U.S. Army Sergeant Major Academy
(USASMA) were collected using interviews, artifacts, and Department of Defense (DoD) archival survey data. The multiple data sources combined to provide an in-depth understanding of gender-based barrier moderators in use by successful enlisted women in the U.S. Army. Practices identified during the study as moderators of gender-based barriers may add value for women who seek to benefit from the experiences of other women selected for promotion to the rank of Sergeant Major in the U.S. Army. Also, men that have limited or no experience in leading, mentoring, or guiding the professional development of women may benefit from understanding moderators in use by successful women. Finally, identified moderators may contribute to policy recommendations for the Army, other militaries, and similar male-dominated environments.

**Study Background/Foundation**

Patriarchal beliefs linked to modern sexism found by Yoon et al. (2015), gender biases, and stereotypes contribute to the United Nations Security Council (UNSC, 2015) report of a global phenomenon of nonegalitarian participation of women in diplomacy, planning, resourcing, and execution of peace and security. In the study of women shaping national-level peace processes, Chang, Alam, Warren, Bhatia, and Turkington (2015) found that when provided the opportunity, women contribute to developing peace in communities expanding benefits to entire societies and countries. Paffenholz (2015) examined women’s inclusion and concluded that when women are participants in negotiations that reach an agreement, the chances of implementation increase. With firsthand experience as the founding leader of UN Women and the first female president
of Chile, Bachelet (2014) provided an argument backed by statistics supporting the findings of Paffenholz. Bachelet declared that most peace agreements fail, but with the inclusion of women’s agency, the potential for continued peace increases. Similarly, Groothedde (2013) expressed the civil-military benefit of women’s perspectives and inclusion. Likewise, Egnell (2016), who studied military effectiveness with the inclusion of gender perspectives, found the addition of women and their perspectives increases operational effectiveness for militaries and governmental organizations (Groothedde, 2013). Benefits of the inclusion of women are measurable in improved information collection, security, development, justice, and reductions in poverty (Bachelet, 2014; Groothedde, 2013; UNSC, 2015).

Globally increasing the participation of women in peace and security as presented by Deputy Assistant Secretary of Defense Witkowsky (2016) is necessary to (a) maintain stability, (b) reduce suffering during a conflict, (c) support postconflict reconstruction, and (d) advocate women’s perspectives. The United Nations unanimously passed Security Council Resolution 1325 (UNSC, 2015), which recognized the contributions women can make in peace and security, the need for gender equality, and the sexual violence directed against women during conflict. Elements of the resolution and subsequent supporting resolutions have influenced U.S. national policies, the Department of Defense, and the passage of the Women, Peace, and Security Act of 2017 (2017). There is a perception in the military, echoed by King’s (2014) response to Brownson’s (2014) proposed concept of gender equivalency, that women’s participation is a women’s
issue, which ignores the positive impact that diverse perspectives (Chang et al., 2015; Witkowsky, 2016) can bring to every operation and policy (Groothedde, 2013).

Authoring multiple U.S. Congressional Research Service reports, Kamarck (2016) recalled that on January 24, 2013, Defense Secretary Leon E. Panetta and Chairman of the Joint Chiefs of Staff, General Martin Dempsey, rescinded the “1994 Direct Ground Combat Definition and Assignment Rule” for women. This action opened over 14,000 new positions across the services for women to potentially fill. The authorizing memo included the direction to address the gender-based barriers to women’s service (Arnhart et al., 2015). In doing so, many organizations in the U.S. Department of Defense comprised of men only must now integrate women, such that men who have served as soldiers for years, and in some cases decades, will for the first time be responsible for the training and development of women in their organizations. While the patriarchal culture of the U.S. Army (Arnhart et al., 2015) has made progress integrating women into a limited number of positions, most of these duty positions have been within support, administrative, and medical organizations (OUSD/P&R, 2016b).

The literature review in Chapter 2 will expand on the discussion so far by providing contextual information on the U.S. Army, theories related to social roles, barriers women face in similar environments, current research findings, and moderators used by women.
Current State of the Field in Which the Problem Exists

Succeeding Defense Secretary Panetta, Secretary Carter directed the full integration of women in the Armed Forces without exception, with implementation to begin no later than January 2, 2016 (Carter, 2015). Multiple studies informed the Secretary’s decision and service implementation plans. One subject not adequately addressed within those studies, which inspired the research, is a lack of cultural understanding of the gender-based barriers women face within the male-dominated environments of the military (Arnhart et al., 2015).

Secretary Carter stated in the implementation guidance that “the integration of women may require a cultural shift in previously all male career fields” (Carter, 2015, p. 2). Integration of women into career fields without a cultural shift will require compliance with the Joint Chiefs of Staff directed assimilation of women into previously “closed units” highlighted by Deuster and Tepe’s (2016) introduction of findings after a women in combat symposium. As suggested by Secretary Carter, cultural change as an element of integration, if not required in career fields previously only available to men, supports the need for understanding how women are best able to succeed in military environments dominated by men. Integration will require a cultural change, and with it, an understanding of the current cultural environment and the barriers women face (U.S. Army, 2016b).

The Office of the Secretary of Defense (OUSD/P&R, 2016b) annual population report included the observable difference in the participation of men and women in the
U.S. Army and that (a) women disproportionately hold positions in administrative and medical occupations, (b) women are married at a lower rate than men, (c) women have fewer children compared to men, and (d) the reasons for these disparities are not fully understood. The Department of Defense GIS conducted by Asch, Miller, and Malchiodi (2012) and Desrosiers and Bradley’s (2015) Marine Corps study concluded without an understanding of the career progression differences between men and women integrating into organizations previously only open to men. Underrepresentation of women at senior leadership levels in the U.S. Army is known, as is the traditional values of volunteers, and the existing organizational culture that contributes to the existence of gender-based barriers to overcome (Arnhart et al., 2015; OUSD/P&R, 2016b). The social justice issue of benevolent sexism is also known (Arnhart et al., 2015), but no plan exists to address the cultural and gender-based challenges faced by women (U.S. Army, 2016b) or the actions taken by those that reach senior enlisted positions. Identifying the strategies women use as moderators to address gender-based barriers and how they use them in a male-dominated organizational culture is transferable during institutional or individual leader development programs.

**Historical Background**

Although women serving in the military is not novel, the positions available to women today are. Women have served since the Revolutionary War, but not always from within the military or the U.S. Army, filling traditional roles as nurses, seamstresses, and cooks. Women throughout U.S. history have also fought in combat with their husbands or
disguised as men. Demand for troops outpaced the supply of men during both World Wars, and thousands of women formally served in the Army Nurse Corps and the Women’s Army Corps (WAC) outside of the Army. The Army site on Women in the Army (2016) included that in 1943, tens of thousands of WACs temporarily placed within the Army served during World War II “to free a man to fight.” After World War II, however, the Women’s Armed Services Integration Act of 1948 integrated women into the U.S. Army at a maximum proportion of 2% of the enlisted force (Kamarck, 2016).

Rich in historical information compiled for U.S. Congressional Research Service (CRS), Kamarck (2016) recounted milestones of women in combat and related issues of interest for the Congress. The creation of the all-volunteer force in 1973 began the process of women’s integration into Army units, and the Women’s Army Corps dissolved in 1978. Later, the 1994 Direct Ground Combat Definition and Assignment Rule and the 1998 Standard Risk Rule were implemented with the intent to protect women from the inherent dangers of direct combat operations. The irregular battlefields of Iraq and Afghanistan challenged the military’s ability to keep women out of direct combat operations with the loss of 125 women killed, and 872 women wounded in support of the Global War on Terror (Kamarck, 2016). In 2013, repeal of the Direct Ground Combat Definition and Assignment Rule issued implementation guidance for the complete integration of women to begin no later than January 2, 2016. The Department of Defense’s suspension of the direct combat exclusion rule and the inclusion of women
within combat specialty fields (Kamarck, 2016) created anticipation of increased accession and enlistments of women.

With a modest start in 1973, women represented only 3% of the enlisted Army Force. Representation of enlisted women in the U.S. Army increased from 1973 until the end of the 20th century when the representation of women reached an average participation rate just over 15% of the enlisted Force. In 2017, the representation of women within the active Army remained stable at 13.4% participation within the enlisted ranks (Kamarck, 2016).

**Deficiencies in the Evidence**

Despite the abundance of investigations into the dearth of women in senior leadership positions, multiple Rand Corporation studies conducted by Asch et al. (2012) and Asch, Miller, and Weinberger (2016) commissioned by the DoD included researcher findings that identified gender-based barriers that contribute to the underrepresentation of enlisted women remain misunderstood. The U.S. Congress established the Military Leadership Diversity Commission in 2009 (MLDC, 2011) to investigate diversity challenges related to women in the military. The MLDC was the third commission following the Fahy Committee supported by President Truman and the Gesell Committee established by President Kennedy in 1962. Like previous committees, the MLDC examined diversity issues and the policies that contribute to or create barriers to diversity. According to the MLDC study of data provided by the Defense Manpower Data Center (DMDC), minorities and women remained underrepresented as senior noncommissioned
officers (NCOs). The MLDC (2011) could not determine the cause for the disparity in promotion and retention rates between men and women and recommended further study of promotion, retention, and barriers.

The Office of the Secretary of Defense contracted the RAND Corporation to examine the MLDC findings and continue the study of commissioned officers using updated data (Asch et al., 2012). The RAND study results like previous research did not contain an identification of the causal effects of limited career opportunities or factors contributing to gender differences in retention and promotion. Another RAND study was conducted in 2016 and included longitudinal data to explain the difference identified in previous studies on officer career progression (Asch et al., 2016). Findings within the study again included inexplicable differences in career progression between men and women, indicating a gap in research and understanding. The information provided in this study is a source of artifacts and links to current occupation information for use in defining the operational and force sustainment functional area cases for investigation. The MLDC (2011) and both RAND studies (Asch et al., 2012; Asch et al., 2016) were focused on commissioned officers and with only minimal analysis of the more significant population of enlisted women.

Segal et al. (2016) synthesized the results of multiple studies related to gender integration in the military and discussed conditions that contribute to the success and failure of women’s integration. The analysis concluded with a call for research to identify effective strategies used by women to increase performance, acceptance, and well-being.
The study findings also contained the need to research the conditions in which women use such strategies. Finally, the researchers recommended educating leaders on gender differences in how men and women lead and educating men on how to mentor women. After a “women in combat” symposium, Deuster and Tepe (2016) provided a summary of gaps and recommendations that aligned with the findings of Segal et al. (2016). Also, Tepe et al. (2016) proposed the analysis of longitudinal datasets and the use of mixed methods research.

Previous research substantiated the presence of differences in promotion and retention between men and women in the U.S. Army (MLDC, 2011) without a full understanding of causation (Asch et al., 2012; Asch et al., 2016). Barriers for women are known to exist (Arnhart et al., 2015) in policy and the culture of the U.S. Army without an understanding of gender-based barrier moderators used by women (Segal et al., 2016) to increase their potential for recruitment, promotion, participation, retention, and integration in the Army.

**Problem Statement**

As the U.S. Army integrates women across the force (U.S. Army, 2016b), women remain underrepresented in senior leadership positions (Asch et al., 2016). Researchers have not fully recognized the factors contributing to the lack of proportional leader participation of women (OUSD/P&R, 2016b) or the career progression differences between men and women in the military (Asch et al., 2012; Desrosiers & Bradley, 2015), which suggests a gap in understanding.
Audience

As U.S. Army organizations begin to integrate women into organizations previously only available to men, the attrition rate will continue or increase for dissatisfied women in the Army (MLDC, 2011). There is a possibility to affect the culture of the U.S. Army with greater awareness of gender development differences and the proliferation of effective strategies used by successful women leaders. Understanding the strategies in use today by successful women selected for promotion to the rank of Sergeant Major in the U.S. Army will provide insight into useful leader development paths to guide other women in the Army through the “labyrinth,” as analogized by Carli and Eagly (2016).

Specific Leadership Problem

Women encounter various career barriers (Carli & Eagly, 2016; Rincón, González, & Barrero, 2017) in the U.S. Army (Arnhart et al., 2015; Kamarck, 2016) without shared understanding (Tepe et al., 2016) of what active strategies are in use as moderators (U.S. Army, 2016b), and how to employ them (Segal et al., 2016). More than 53,000 enlisted women comprise 13.4% of the active U.S. Army force, but only 285 or 8% of those that hold the highest enlisted rank of Sergeant Major are women (OUSD/P&R, 2016b). U.S. Army integration plans advocate for standards and enforcement of military equal opportunity to address hostile sexism (U.S. Army, 2016b). U.S. Army plans fail to address the known traditional values of men and the potential for benevolent sexism as identified during the Army GIS conducted by Arnhart et al. (2015),
the second contributing element of ambivalent sexism as found during Glick and Fiske’s (1996) formative research.

Understanding benevolent sexism can help leaders identify when it happens so that they can provide leadership to all subordinates without implicit or explicit favor or discrimination (U.S. Army, 2014b). The examination of negative performance impacts associated with benevolent sexism conducted by Jones et al. (2014) stressed the importance of developing strategies to recognize the benevolent forms of sexism. Resistance to cultural change is a leadership challenge examined by Appelbaum, Degbe, MacDonald, and Nguyen-Quang (2015), and one that women in the U.S. Army will encounter in occupying newly opened positions (Arnhart et al., 2015; Carter, 2015). To assist in the integration of women into the most male-dominated U.S. Army occupations, and those who lead them, an understanding of gender-based barrier moderators is needed to increase the recruitment, promotion, participation, retention, and integration of women.

**Purpose of the Study**

The purpose of this transformative mixed methods (Plano Clark & Ivankova, 2016) case study (Creswell, 2015; Yin, 2018) is to understand and explain how moderators of gender-based barriers contribute to enlisted women’s increased recruitment, participation, retention, integration, and promotion to the highest enlisted rank of Sergeant Major in the U.S. Army. Integration of quantitative and qualitative designs aligned quantitative evidence of gender barriers encountered between groups of women and the qualitative moderators described by participants during interviews. An
analysis of the two cases identified shared moderators of gender-based barriers used by women in the U.S. Army. The analysis also included the differentiated moderators in use to address gender barriers specific to women of different ranks, race, and functional area. Describing the practices women engage in to moderate gender-based barriers may help break the pattern of women’s underrepresentation in senior ranks and the disproportionate attrition rate of dissatisfied women in the Army (Asch et al., 2016).

**Significance of the Study**

As women continue to integrate into the U.S. Army, corrective action is necessary to combat the inequity, sexism, and unethical gender protectionist practices of men identified within the U.S. Army GIS completed in 2015 (Arnhart et al., 2015). Segal et al. (2016) stated, “We need research on which strategies that women may use are most effective for women—for performance, acceptance, and well-being—and under what conditions and for whom” (p. 38). The findings and conclusions within this study have the potential to be used to influence U.S. Army policies and alter the detrimental sexist culture of the Army that women must navigate daily, by raising greater awareness of gender development differences and the proliferation of effective strategies used by today’s successful women leaders.

Women in the U.S. Army could benefit from familiarizing themselves with practical strategies in use today as moderators of gender-based barriers benefiting women’s careers. Men who are for the first time responsible for the training and development of women could benefit from understanding the strategies women use to
compete in the Army. U.S. Army leaders of organizations, units, and institutional professional development could benefit by becoming aware of the existence of benevolent sexism in U.S. Army (Arnhart et al., 2015) and actions women take in the Army to cope with benevolent sexism.

U.S. Army leaders intend to professionally lead and develop all subordinates, encouraging fairness and inclusiveness (U.S. Army, 2015a) in an environment known to harbor sexist views (Arnhart et al., 2015), but this requires gender competencies to lead without favor and identify discrimination. Becoming familiar with the moderators of gender-based barriers women in the Army use could add to the gender competencies of leaders. Leaders in other militaries or male-dominated organizations could be interested in the moderators of gender-based barriers identified in this study to incorporate best practices into training and leader development programs.

**Methodology Overview**

The research design is a transformative, mixed methods (Plano Clark & Ivankova, 2016) multiple case study design (Creswell, 2014) with various sources of evidence to investigate and provide an in-depth understanding of the contemporary phenomenon of moderating gender-based barriers in U.S. Army (Yin, 2018). The population included all women selected for promotion to the rank of Sergeant Major in the active force of the U.S. Army. Purposeful sampling, according to Creswell (2014), is the selection of participants that contribute most to the understanding of the research problem and questions. Patton (2015) further explained that purposeful sampling includes the selection
of “information-rich cases” (p. 264) to facilitate in-depth study with limited resources. A purposeful sample (Creswell, 2014) of 12 women was drawn from the information-rich (Patton, 2015) annual class of 62 female students attending the U.S. Army Sergeants Major Academy (USASMA). The primary instrumentation for qualitative data collection was a semi-structured interview guide (see Appendix A). A second instrument, the 2016 Workplace and Gender Relations Survey (WGRS) sponsored and provided by the Office of People Analytics (OPA, 2017), was the primary quantitative analysis source of archival data. Collection of data occurred through semi-structured interviews of individual participants and archival research data made available from the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD/P&R), and the DoD Defense Manpower Data Center (DMDC).

Data analysis began with quantitative analysis using SPSS to enable the measurement of medians between the operations case and the force sustainment case for variance using the Kruskal-Wallis one-way analysis of variance, chi-square test of independence, and frequency counts. Qualitative analysis included line-by-line coding using MAXQDA software to conduct an open coding process (Creswell, 2014) and sort within the five interest areas of recruitment, promotion, participation, retention, and integration. The integration design was a convergence of quantitative analysis results with qualitative interview analysis (Plano Clark & Ivankova, 2016). The two-case design allowed inferences of similar and contrasting moderators in use between the cases.
Research Questions/Hypotheses

In support of the mixed methods design (Plano Clark & Ivankova, 2016), research questions were grouped into three categories. First, the overarching mixed methods question was to describe how women use moderators of cultural, gender-based barriers between the cases. Cultural differences exist between the U.S. Army operations and force sustainment functional area subcultures (Arnhart et al., 2015) and resulted in differentiated use of moderators of gender-based barriers. Second, qualitative research questions were intended to identify when women use moderators over a career. Finally, analysis of data linked to the quantitative research questions were used to compare significant group differences, if any, related to race, rank, and functional area.

Mixed methods. How do enlisted women use moderators of cultural, gender-based barriers in the U.S. Army, and what variations by race, rank, and occupation functional area (i.e., operations and force sustainment) exist?

Qualitative research questions. Question 1: What moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major use to support their recruitment, promotion, participation, retention, and integration? Question 2: What moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major find most effective?

Quantitative research questions. Formulation of the quantitative null hypotheses and subquestions increased the depth of understanding of the overall research while maximizing the use of existing datasets. H10: No significant group difference exists
between race or rank and enlisted women’s experience of gender-based barriers in the U.S. Army.

Subquestions related to H10: H1a, H1b, and H1c.

1. H1a: Do minority and nonminority women in the U.S. Army experience gender-based barriers the same way? (H1a: $\mu_{\text{White non-Hispanic}} = \mu_{\text{Minority}}$).

2. H1b: Do women of junior and senior enlisted ranks in the U.S. Army experience gender-based barriers the same way? (H1b: $\mu_{\text{women grade E1-E4}} = \mu_{\text{women grade E5-E9}}$).

3. H1c: Do minority and nonminority enlisted women in the U.S. Army differ in rates of retention over the span of a career? (H1c: $\mu_{\text{White non-Hispanic}} = \mu_{\text{Black}} = \mu_{\text{Hispanic}} = \mu_{\text{Asian}}$)

H20: No significant group difference exists between race, rank, or functional area and enlisted women’s participation in the U.S. Army.

Subquestions related to H20: H2a and H2b.

1. H2a: Do significant group difference of participation exists between minority, and majority enlisted women at the rank of Sergeant Major serving in the occupational functional areas of operations and force sustainment? (H2a: $\mu_{\text{operations minority}} = \mu_{\text{operations nonminority}} = \mu_{\text{force sustainment minority}} = \mu_{\text{force sustainment nonminority}}$).

2. H2b: Do enlisted women in the U.S. Army serving in the occupational functional areas of operations and force sustainment differ in rates of retention over the
span of a career? (H2b: \( \mu \) operations minority = \( \mu \) operations nonminority = \( \mu \) force sustainment minority = \( \mu \) force sustainment nonminority).

**Study Limitations**

Participant ability to articulate experiences generated varied responses to similar experiences. Self-reported survey and interview data were not independently verifiable. The examination of successful moderators through self-reported data may introduce social response bias, a concern also raised during a military study conducted by Meadows et al. (2016) for RAND, and an overestimation of positive aspects. The use of member checking (Creswell, 2014) and providing an opportunity for participants to respond with remembered behaviors and strategies after the interview moderately mitigated the impacts of this limitation. To increase the trustworthiness of qualitative research Birt, Scott, Cavers, Campbell, and Walter (2016) critiqued member checking techniques and offered synthesized member checking as an alternative method to member checking. Adopting elements of the synthesized member checking approach, interview participants received the qualitative findings section of Chapter 4 that included themes and interview quotes for comments related to their experience, changes, or additions to findings. No interview participants provided any additional comments. The U.S. Army severely restricts research on sensitive subjects, to include women in the Army, to internal research processes limiting approval of access to active duty female soldiers and the scale of participation. The combination of nominal and nonstandard distributed data provided
by the Defense Manpower Data Center (OPA, 2017) limits quantitative analysis to nonparametric tests.

**Delimitations**

Men and women of all ranks in the U.S. Army may possess a perspective, opinion, or experience regarding gender-based barriers within the male-dominated culture of the Army. The research of women was the focus, and more specifically, only the experiences of women selected for promotion to the enlisted rank of Sergeant Major. Women of lower ranks may use moderators of gender-based barriers; however, the target of this study was women selected for promotion to Sergeant Major and with an assumption that they successfully employed moderators to navigate the promotion process. Only active duty enlisted Army women were included in this research study. Generalization of results should not be applied to commissioned Army officers, members of any other service, or the reserves. To increase the potential for permission necessary to access active duty soldiers, the research objectives that involve interview participants do not relate to the identification of moderators of sexual assault or sexual harassment.

**Definitions of Key Terms**

The culture of the military includes a unique language that is common among service members. The definitions that follow do not constitute a comprehensive list of unique terms used in the U.S. Army, but they will assist in the understanding of novel words found in this study. Also, included for clarity are the definitions of key gender-related terms that appear in this study.
The term *agentic* refers to attributes ascribed to men as “assertive, controlling, and confident tendency” (Eagly & Karau, 2002, p. 574) and associated with a leader.

*Active duty* refers to “full-time duty in the active military service of the United States” (U.S. Army, 2014c, p. 126). The context of all active duty references is in support of military service in the U.S. Army.

*Ambivalent sexism* is a theory developed by Glick and Fiske (1996), composed of two segments of sexist attitudes—hostile sexism and benevolent sexism.

The *Army doctrine* is the approved body of knowledge provided for use in training and execution of U.S. Army operations, composed of “fundamental principles, with supporting tactics, techniques, procedures, and terms and symbols” (U.S. Army, 2014a, p. 1).

*Benevolent sexism* is different from hostile sexism in that it is less overt and originates from traditional patriarchal roles. Protective traditional attitudes, often chivalrous in tone, contribute to detrimental cross-gender helping that perpetuates the privileged position of men. Paternalism, gender differentiation, and heterosexuality all add to “viewing women stereotypically and in restricted roles” (Glick & Fiske, 1996, p. 491).

A *Command Sergeant Major/Sergeant Major (E-9)* refers to both a military rank and to a specific administrative position. The rank refers to the highest enlisted rank with a pay grade of E-9. The leadership position, command sergeant major, is the senior enlisted advisor to the commanding officer of a battalion level or higher organization.
“They carry out policies, enforce standards and advise the commander on the performance, training, appearance, and conduct of enlisted Soldiers” (U.S. Army, 2014c, p. 18). While equivalent in grade to a Command Sergeant Major, a Sergeant Major supports the command as a staff officer.

An **enlisted member** is an individual volunteer contracted to serve in the U.S. military. Rank and pay grade of enlisted soldiers begins at the Private and enlisted grade of 1 (E-1) and ranges to Sergeant Major at the enlisted grade of 9 (E-9; DoD, n.d.).

**Force sustainment** is a functional category of military branches within the U.S. Army (U.S. Army, 2014c) providing logistical support and conduct soldier support functions (e.g., finance, human resources, and health services).

A **gender stereotype** “is the differing distributions of women and men into social roles” (Eagly & Steffen, 1984, p. 752). Stereotypes include the cultural acceptance that women are communal and less agentic than men. Also, they contribute to the development of gendered in- and out-groups (Kaatz & Carnes, 2014).

A **glass ceiling** is an enduring metaphor coined and made popular in the 1980s that refers to an invisible barrier faced by women as they ascend to senior-level leadership positions. It is presumed to be an impenetrable barrier that restrains women as they near the pinnacle of leadership positions in an organization (Carli & Eagly, 2016). As women reach new heights of leadership positions, they are said to “break” through the glass ceiling.
A grade is “a step or degree in a graduated scale of office or rank that is established and designated as a grade by law or regulation” (U.S. Army, 2014b, p. 127).

Hostile sexism is a sexist antipathy fitting traditional definitions of prejudice. Actions include blatant negative behaviors toward women that fill nontraditional gender roles and/or engage in behaviors traditionally attributed to men (Glick & Fiske, 1996).

Operations are a functional category of military branches within the U.S. Army that directly engage with adversaries in the conduct of war and include the branches of aviation, infantry, field artillery, air defense artillery, armor, and corps of engineers, among others (U.S. Army, 2014b).

Summary

The intended use of the results of the transformative, mixed methods (Plano Clark & Ivankova, 2016) multiple case study (Creswell, 2014; Yin, 2018) were to reduce the gap in understanding of how and when enlisted women use behaviors and strategies as moderators of cultural, gender-based barriers to increase recruitment, promotion, participation, retention, and integration in the U.S. Army. Chapter 1 included a description of the historical background of women in the Army (Kamarck, 2016) and the lack of understanding concerning women’s underrepresentation that remains, despite multiple studies of women serving in the Army (Asch et al., 2016). Women in the Army continue to be underrepresented (OUSD/P&R, 2016b), and there is currently no plan to address the problem of benevolent sexism (Arnhart et al., 2015; Jones et al., 2014) or the patriarchal culture that exists (U.S. Army, 2016).
A description of the explanatory case study methodology included the three categories of research questions. The mixed methods question was to describe how moderators were used and compare moderators between the cases. Then, quantitative and qualitative research questions were used to compare between-group and case differences. The chapter concluded with a list of key terms used in this study. The literature review in Chapter 2 will expand the discussion provided in Chapter 1 to include a contextual setting for the study, related theories, barriers women face in similar environments, current research findings, and moderators of gender-based barriers used by women.
CHAPTER 2: LITERATURE REVIEW

The U.S. Army issued guidance for the continued integration of women (U.S. Army, 2016b) within the broader DoD directive to open all career fields to women (Kamarck, 2016) but without understanding retention differences between men and women (Asch et al., 2016). The U.S. Army seeks to identify gender-based barriers women encounter and how best to integrate women into career fields previously only available to men (U.S. Army, 2016b). This chapter includes a wide-ranging investigation into the related theories, contextual setting, current research findings, barriers women face in the Army and similar environments, and moderators of barriers used by women.

The literature reviewed in support of this study is based on consulting over 39 books and 631 articles from City University databases including ProQuest Dissertations & Theses, PsycTESTS, Sage Knowledge, DoD Joint Knowledge Online (JKO), U.S. Army Knowledge Online (AKO), Congressional Research Service (CRS), and Defense Manpower Data Center (DMDC). Keyword searches included: Army; Military; Leadership; Women; Female; Gender; Stereotype; Discrimination; Sexism; Ambivalence; Integration; Justice; Strategies; Development; Mediation; Coping; Culture; Demographics; Representation; Barriers; and Tokenism. Organizational websites included the Defense Equal Opportunity Management Institute (DEOMI), RAND Corporation, Defense Advisory Committee on Women in the Services (DACOWITS), and Pew Research Center.
Information related to women in the military is robust, and several studies have identified various barriers faced by women. Studies about the attainment of leadership positions by women in the military frequently only address commissioned officers (Asch et al., 2012; MLDC, 2011) but not enlisted women. Outlined in a recent study, the findings included the presence of unexplainable differences in the career progression of men and women in the military (Asch et al., 2016). Absent in previous studies is the identification of the proportional underrepresentation of enlisted women’s participation over time or the strategies used by women as moderators of gender-based barriers. Exploring contemporary strategies used as moderators by successful women selected for promotion to the enlisted rank of Sergeant Major in the U.S. Army may identify a path for leadership development for others to emulate.

This chapter contains a review of literature applicable to the purpose, problem statement, and research questions of the study. The review of the literature will highlight the gaps revealed in the study of women in the military. Focus areas of the literature review include: (a) theories related to cultural influences, (b) gender-based barriers, (c) origins of barriers women encounter, and (d) potential strategies to moderate barriers.

**Theoretical Foundations**

Fundamental to the operational and force sustainment cases is the theoretical foundation located in three essential theories: (a) role congruity theory, (b) benevolent sexism, and (c) social justice theory. The review of social role theory developed by Eagly (1987), and ambivalent sexism theory established by Glick and Fiske (1996), contribute
to the background of role congruity theory (Eagly & Karau, 2002) and benevolent sexism (Jones et al., 2014), respectively. The inclusion of the skills approach as described in Northouse’s (2016) literature review provides context for stratified leader development within the U.S. Army.

Study of the role of women serving in industries dominated by men, such as the U.S. Army, would be incomplete without a review of the sex-differentiated skills and beliefs that stem from cultural conformity described by Eagly (1987) in the social role theory. Social expectations that men are agentic and women are communal (Eagly, 1987) translates into the masculine expectation for those in leadership and the role congruity theory later developed by Eagly and Karau (2002). The role congruity theory builds on the norms addressed in the social role theory, with the addition of social prejudice for women in leadership positions. Eagly and Karau also explained descriptive and injunctive aspects of prejudice encountered by women as more women continue to fill nontraditional roles and leadership positions in gendered organizations such as the U.S. Army (Carter, 2015; Kamarck, 2016). The bias that accompanies the participation of women in the U.S. Army can manifest into sexism (Arnhart et al., 2015).

The initial development of ambivalent sexism theory by Glick and Fiske (1996) includes hostile sexism and benevolent sexism and provides context for the focus on benevolent sexism. Linked to traditional values, benevolent sexism manifests in attitudes and actions of men in the U.S. Army when in the presence of women (Arnhart et al., 2015). The effects of benevolent sexism explored by Jones et al. (2014) is advanced in
the case studies in which women’s coping behaviors and strategies within the U.S. Army are identified. Segal et al. (2016) analyzed gender integration research linked leader and peer behavior in the U.S. military. Segal et al. highlighted the military policies intended to eliminate sexism but have yet to address the adverse effects and practices known to exist, which originate from benevolent sexism (as cited in Jones et al., 2014).

The U.S. Army’s implementation of gender integration parallels the Secretary of Defense in the call to “rely upon enduring values of the profession of arms” (U.S. Army, 2016b, p. 3). The Chief of Staff of the U.S. Army, General Milley (2016b), directed a continued approach that ensures equitable treatment and “reinforces the Army values of dignity and respect” (p. A-1). General Milley further directed equitable treatment as a principle of the implementation plan. The ethical connection to justice and the equal treatment sought by the Chief of Staff of the Army are essential elements of social justice theory. Jensen (2016) examined the increasing integration of women into militaries and offered a Rawlsian based roadmap to of equal opportunity and take gender into account. Rawls’ theory of justice is advanced within social justice theory as an ethical approach to allowing equal opportunity among warfighters (Jensen, 2016). Rawls’ theory of justice (2009) also provides a foundation to support the use of the transformative paradigm (Mertens, 2015) and an ethical framework to counter exclusionary practices.

Finally, the inclusion of the skills approach, as described by Northouse (2016), is foundational to U.S. Army leader development and the belief in the ability of individuals to learn leadership skills. The Army is self-reliant in the development of future leaders by
building on a continuous career-long process of synthesizing knowledge, skills, and experiences. Moderators identified in conducting this research will allow for the dissemination of new knowledge and increased individual abilities through leadership development. The basis of U.S. Army leader development, such as the skills theory, includes the capability of individual soldiers to learn leadership skills and abilities (U.S. Army, 2014a).

**Social Role Theory**

Eagly and colleagues have made a significant contribution to existing research on psychological connections between social roles and prejudice (Koenig & Eagly, 2014), as well as sex, gender, and leadership as it applies to women. Concerned with an early belief in psychology in the 1970s that no real sex differences existed, Eagly (1987) launched the social role theory. The theory is based on the premise that sex-differentiated skills and beliefs stem from men and women’s cultural conformity to societal gender roles and stereotypes (Eagly & Wood, 2016). Eagly examined the division of labor that originated from physical differences in men and women and the skills attained in socially expected gender roles as shared social expectations, based on an individual’s socially identified gender. At the time that social role theory was first being developed, the division of gender stereotypes strongly attributed an agentic behavior to men and communal behavior to women.

Eagly (1987) synthesized previous research and concluded that there was a cultural expectation for men to engage in the act of helping. Specific to the expected
agentic behavior of men, Eagly proposed the behavior of heroism and chivalry as extensions of agentic behavior and as social expectations of men. Eagly went on to associate words also found in the foundational work on sex roles by V. E. Schein (1973) and Bem (1974) to describe the agentic attributes of men as aggressive, adventurous, ambitious, dominant, chivalrous, competitive, heroic, and willing to take risks. These agentic characteristics that Eagly attributed to men also closely resemble the socially expected attributes of U.S. military service members (Arnhart et al., 2015). Conversely, study results of expected or associated attributes of women as communal include caring, compassionate, empathetic, gentle, helpful, kind, nurturing, and sympathetic (Bem, 1974; Eagly & Karau, 2002; V. E. Schein, 1973).

A challenge to the theory. Women’s increased participation in the workplace (U.S. Bureau of Labor Statistics, 2017), and the corresponding change in the distribution of men and women in social roles predicted by Eagly and Steffen (1984), was found by Berkery, Morley, and Tiernan (2013) to impact women’s status in society. Change in the roles of women coincides with an increased social acceptance of career women. Despite women’s increased social status (as they increasingly entered the workforce), the prevailing stereotypes about women (i.e., as communal) did not correspondingly change—an idea that is supported as a counter-argument against social theory made by Rudman, Moss-Racusin, Glick, and Phelan (2012). Almost 30 years after the study conducted by Eagly (1987), the study of sex differences and attributes by Berkery et al. (2013) included an exploration of societal change over time. Results of the study
contained a finding of no change in men’s perception of other men, women, or managers, and the analysis of women’s perceptions of other women included perceptions of women as equally agentic and communal. These results suggested a need for a descriptive change toward the attribute of androgyny for women, which also provided additional support for the critique of social role theory levied by Rudman et al. (2012).

Contrasting with the findings outlined in the previous sections, additional research conducted by Koenig and Eagly (2014) and later by Haines, Deaux, and Lofaro (2016) did not include an increased self-stereotyping report of women as more agentic. An explanation offered by Haines et al. (2016) of these differing results included differences in population, measurement techniques, and the potential effect of a cultural lag in gender beliefs. Donnelly et al. (2015) studied attitudes toward women and found that a nonlinear change over time explained the differences reported in previous studies. Their research included the surprising result of increased support among Millennials (born 1982-1999) for the patriarchal role of husbands in the home. At the same time, Millennials reported increasing acceptance of women working outside the home. The increased measure of support for traditional roles inside the home may be contributing to the lag in a measurable change found by Berkery et al. (2013) in the stereotype of women outside the home. Taken together, analysis of previous research suggests that increasing social acceptance of women in the workplace has yet to replace the gender stereotypes of men as agentic and women as communal (Eagly, 1987), thereby providing support to the foundation of role congruity theory (Eagly & Karau, 2002).
Role Congruity Theory

Grounded in the social role theory, the role congruity theory of prejudice toward female leaders developed by Eagly and Karau (2002) is a critical underpinning to connect sexism, prejudice, stereotypes as barriers to women in leadership roles, and the metaphors of the glass ceiling and the labyrinth coined by Carli and Eagly (2016). Eagly and Karau (2002) stated, “Because the communal characteristics ascribed to women are different from the predominantly agentic characteristics ascribed to leaders, this combining would produce disadvantage for women” (p. 586). Role congruity theory connects gender expectations explained by social role theory with the social expectations of leaders. An expectation of similar participation rates of men and women in senior positions should exist if no disadvantage is present.

Underrepresentation. The participation rate of women in the U.S. labor market has remained stable at or near 47% dating back to the last century (U.S. Bureau of Labor Statistics, 2017). Over the same period, full-time employment of women has increased to include the participation of women in management or leadership positions. The U.S. Census Bureau (2017) statistics include gender comparisons that put women at over 50% of the U.S. population. Researchers from McKinsey & Company and LeanIn.Org (2017) further examined the presence of women in the pipeline of various industries and found that women remain underrepresented throughout the corporate pipeline. Women are occupying more senior leadership positions but remain underrepresented in S&P 500 companies employed at the rate of 26.5% of senior-level managers, and only hold 5.4%
of the national CEO positions (Catalyst, 2018). The Office of the Under Secretary of
Defense for Personnel and Readiness military services report for 2015 (OUSD/P&R,
2016b) includes evidence of the parallels between the decreased participation of civilian
women in advanced management and leadership positions and the U.S. Army enlisted
women holding a representative level of only 8% of the senior enlisted population.
Reduced further, senior enlisted women in the U.S. Army fill leadership (i.e., command)
positions at only 4% of all Command Sergeants Major (DMDC, 2017). Eagly and Karau
(2002) revealed two forms of prejudice contributing to the global underrepresentation
reported by the World Economic Forum (Hausmann & Tyson, 2017) of women in senior
leadership positions, namely, descriptive and injunctive prejudice.

**Descriptive and injunctive prejudice.** The role congruity theory specified two
expectations or norms of gender role prejudice that apply to women in leadership
positions (Eagly & Karau, 2002). Eagly and Karau (2002) described the first aspect of
prejudice as descriptive. The descriptive norm includes the prejudicial social expectation
that men are agentic and that they are leaders. The association of men as leaders connects
the socially accepted agentic characteristic to both men and leaders. Women
stereotypically categorized as communal and insufficiently agentic are therefore less
preferred than men for leader positions (Eagly & Karau, 2002).

Eagly and Karau (2002) described the second form of prejudice as an injunctive
norm or expectation that women are communal (Eagly, 1987), and that, when placed in a
leadership position, women do not conform to the social role expectations for women
The second form of prejudice described as injunctive is the backlash directed at women for deviating from their prescribed gender role as women (Eagly & Karau, 2002). For women to overcome the first form of prejudice that is the descriptive norm, they must demonstrate an equivalent level of agency as men in similar leadership positions. Paradoxically, when women exhibit agency to meet the social expectation and descriptive pattern of behavior for a leader, they violate the prescriptive social behavior requirement that women ought to be less agentic and more communal (Eagly & Karau, 2002).

Previous researchers analyzed the penalties women incur who display the same dominant behaviors as their male counterparts. For example, Williams and Tiedens’ (2016) meta-analysis found that women incur more penalties than men for the display of identical dominance behavior, measured in terms of likeability. This finding confirms Eagly’s (1987) assertion that backlash is one consequence of violating the injunctive norm or expectation that women are communal. Also, measured differences in terms of likeability only emerged after displays of perceived explicit dominance and not in response to implicit practices of dominance. Notably, perceptions of competence remained unchanged in both situations (Williams & Tiedens, 2016).

Other researchers have replicated elements of previous studies linked to the role congruency theory (Eagly & Karau, 2002) and the prescriptive (i.e., injunctive) prejudicial social prediction that women are communal and nonagentic (Bongiorno, Bain, & David, 2014). For example, Bongiorno et al. (2014) argued that a shift had taken place in the
acceptance of women in leadership roles to the extent that the display of nonagentic behavior no longer hinders women. Brenan (2017) described the results of a 2017 Gallup workplace poll, which provided some support for this argument in that, for the first time, most respondents (55%) indicated no preference for the gender of their boss when taking a new job. A slight majority of those respondents that indicated a preference, however, did indicate a preference for a male boss (Brenan, 2017).

**Intersectionality of race.** Building on the agentic deficiency and penalty bias women face as described by the role congruity theory (Eagly & Karau, 2002), Rosette, Koval, Ma, and Livingston (2016) intertwined the foundational intersectionality research of Crenshaw (2018) in their study of gender role congruity among Black, Asian, and White women. According to Rosette et al., perceptions of agentic-competence and agentic-dominance described differing barriers for each subgroup of women measured. Incongruent descriptive stereotypes of Black women from the superordinate category of women indicated mixed leadership opportunities for Black women. The perception of Black women as more masculine than feminine reduced the descriptive aspect of prejudice and agentic deficiency expected within role congruity theory (Eagly & Karau 2002), among the superordinate category of women. The differences found by Rosette et al. (2016) support the potential for differentiated gender-based barriers and potential differences in the advancement for women depending on their racial categorization.
**Ambivalent Sexism Theory**

Just as the social category of race has been included in discussions of intersectionality (Rosette et al., 2016), so too has the social category of sex. In developing the Ambivalent Sexism Inventory (ASI), Glick and Fiske (1996) identified paternalism, gender differentiation, and heterosexuality as three sources of male ambivalence. In other ASI research conducted by Connor, Glick, and Fiske (2016), hostile sexism and benevolent sexism have been linked to ambivalence toward women. Emerging from all three sources of male ambivalence are the negative attitudes of the most apparent and overtly misogynistic attitudes of hostile sexism and the positive attitudes that are more difficult to identify in benevolent sexism (Connor et al., 2016).

**Hostile sexism.** Hostile sexism attitudes support the safeguarding of gender-differentiated stereotypical social roles such as those identified by Eagly (1987). Hostile sexism includes the impulse to dominate women that may consist of punitive attitudes and actions directed against women who deviate from their expected gender roles (Glick & Fiske, 1996). Women are not the exclusive targets of hostile sexism; nontraditional men are, too. Stemming from the desire to preserve heterosexuality, men that display “feminine” traits or engage in traditionally feminine roles are thought to threaten the heterosexual status quo (Glick, Wilkerson, & Cuffe, 2015). The open and overt misogynistic attitudes and actions associated with hostile sexism provide opportunities for confrontation and corrective action by leaders. By contrast, the more subtle and
indirect forms of sexism—collectively known as benevolent sexism—are more challenging to address.

**Benevolent sexism.** Opening the door, carrying a heavy load, or taking a challenging mission for a peer may seem innocuous unless the good Samaritan is a man rewarding a woman for embracing traditional gender roles in need of protection. One experimental study concerned the effects of benevolent sexism on men and women (Jones et al., 2014). Results of the study contained evidence of harm to participants' self-efficacy. The degree of effect increased in work settings, and participants experienced more when a male superior exercised benevolent sexism. Shnabel, Bar-Anan, Kende, Bareket, and Lazar (2016) extended the study of the adverse consequences of benevolent sexism and discovered the enabling of cross-gender helping relations. When engaged in, cross-gender helping promoted a dependency relationship contributing to the support and the perpetuation of traditional gender roles. Paternalism and traditional values inherent in many of those who volunteer to serve in the U.S. Army (Arnhart et al., 2015) may contribute to the continued practice of benevolent sexism. In seeking to understand moderators of gender-based barriers in the U.S. Army, this study contains findings that aligned with the recommendation posed by Jones et al. (2014) who called for further research into the strategies used to cope with benevolent sexism.

When questioned about women and LGBTQ in the military during his confirmation hearing, the U.S. Secretary of Defense stated the readiness and lethality of the U.S. military in battle should result in the enemies’ “longest and worst day” when
engaged with the U.S. on the battlefield (CSPAN, 2017). The adverse consequences of benevolent sexism (Jones et al., 2014; Shnabel et al., 2016) are contrary to the stated desire of Secretary Mattis, as benevolent sexism can have no other effect than to diminish the readiness and lethality of women. Women in combat roles and their perspectives are critical to the overall lethality and effectiveness of the military in peace, conflict, reconstruction, and stability operations (Chang et al., 2015; UNSC, 2015); however, this is a position not widely held within an organization that remains male-dominated (King, 2014), and one that is populated with individuals who hold paternalistic beliefs and values (Arnhart et al., 2015). The Secretary of Defense gave the U.S. Army the order to integrate women into combat units (Kamarck, 2016) alongside enforcement measures to ensure compliance. However, some soldiers may continue to engage in sexist activities, and others will unknowingly participate in benevolent sexism out of a heightened sense of protection for women, as found in the U.S. Army GIS (Arnhart et al., 2015). These realities for women who attempt to integrate into U.S. Army life raise issues of social justice.

Social Justice Theory

When faced with a challenge within the U.S. Army, training instructions require leaders to use a virtue ethics approach and demonstrate behavior that is “right” and “virtuous.” In their study of organizational ethics, Bright, Winn, and Kanov (2014) posited that the classic roots of virtue ethics include being moral and honorable with reference to the virtues of “honor, integrity, loyalty, and courage” (p. 446) as elements of
the code of chivalry. When a simple moral view of courage, justice, and benevolence is unclear, the U.S. Army practices the use of utilitarianism to justify sacrifice and to produce the best outcome for the most people. As an example, during training, U.S. Army units select a low-ranking member (e.g., a Private) to remove their protective mask after a chemical attack to assess air quality for the safety of the group. This kind of behavior is widely practiced, deemed ethical for protecting the majority, and provides further motivation to make rank quickly in the Army. In stark contrast to the use of utilitarianism regularly practiced in the U.S. Army, a Rawlsian approach, as described by Jensen (2016), includes egalitarian opportunity and the protection of the most vulnerable.

The U.S. Army culture, combined with virtuous and utilitarian decision making, does not provide equal opportunity and equal treatment for the least advantaged. Tables within the Office of the Under Secretary of Defense for Personnel and Readiness military services report for 2015 (OUSD/P&R, 2016b) indicate the underrepresentation of women in the U.S. Army. Representation of women in the Army further decreases as women enter midlevel and upper enlisted ranks. Rawls’ theory of justice—developed as a counter to utilitarianism—is an argument to protect rights that should not be violated (Rawls, 2009). Two measures drive the theory: equal access and opportunity to social positions, and inequalities benefit everyone, with emphasis on the least advantaged (Jensen, 2016). Each person with equivalent traits, abilities, and desire within Rawls’ theory should receive an equal opportunity without regard to social standing. The now-suspended direct combat exclusion rule limited opportunities for women in combat fields (Kamarck, 2016).
regardless of their traits, abilities, and motivation to serve. Not unique to the military, World Bank surveys have found it commonplace for women at the same level as men to have fewer equal and fair opportunities around the world (Klugman et al., 2014).

Three years after the suspension of the direct combat exclusion rule, Asch et al. (2016) examined the careers of men and women in the military and found unexplained differences in career progression and retention of women when compared to men. Use of virtue ethics and utilitarian ethics within the U.S. Army has not produced an environment of equal and fair opportunities for everyone (Kamarck, 2016). Asch et al. (2016) noted the reduced and unexplained participation of women; their findings support an argument for the broader application of Rawls’ theory of justice and the protection of the least advantaged in the U. S. Army. If an individual can produce or contribute to the desired effects on the battlefield that cause the enemy to have their worst and longest day, that soldier should have equal opportunity to access the battlefield, if so desired, regardless of their sex or gender orientation.

Applying the principles of the Rawls’ justice as fairness, Jensen (2016) tailored Rawlsian subprinciples to address the integration of women in the military. The first subprinciple of egalitarianism provided the fundamental argument of social justice—the requirement for equal opportunity. Jensen argued that the general requirements for any military office or position must provide the opportunity for everyone to compete. The second subprinciple of generalized complementarity was used to examine the relevance of gender when the diversity of a military organization is a benefit. Male-dominated
military organizations fail to understand the utility of including women and their perspectives in the execution of conflict, war, and stability (King, 2014). During a conflict, women can connect to other women noncombatants on the battlefield and collect invaluable information.

**Stability operations.** The Department of Defense (DoD) has established doctrine, defining warfare in terms of varying degrees and mixture of offensive, defensive, and stability operations (DoD, 2017). Stability operations are efforts executed outside of conflict. Conflict may be simultaneously underway in the same country or region as stability operations, but stability requires some degree of security. In the short term after a conflict, measured in weeks and months, stability operations provide humanitarian assistance, protection to the local populace, and restoration of essential services (CJCS, 2016). Vice President Biden (2016) remarked during an award ceremony for women of valor, “You can’t end conflicts, cannot achieve lasting peace without including women as stakeholders and trust builders.” Examining the contributions of female servicemembers, Grass (2016) pointed out that when women are part of these efforts, they can also identify potential issues that might arise when conducting operations in or around civilian populations or refugee camps. In support of postconflict or stability operations, women can also increase stability through the inclusion of perspective and dialogue.

The political inclusion of women in reconciliation and peace negotiations increases the potential for long-term stability. Women in several countries have demonstrated that the integration of diverse perspectives and solutions can contribute to
long-term stability (Chang et al., 2015). The women of Northern Ireland and Liberia provide examples of the power of diversity. The participation of women in the 1998 Good Friday negotiations contributed to the inclusion of women’s perspectives during the talks in the areas of reconciliation, integrated education, and the rights of young people (O’Reilly, Súilleabháin, & Paffenholz, 2015). In Liberia, Leymah Gbowee led women from various churches and faiths to form the Women of Liberia Mass Action for Peace (WOLMAP) group and influenced stalled peace talks, replacing a ruthless dictator with the rise of the first women president of Liberia and Africa. Countries that are inclusive of diverse perspectives, such as Northern Ireland and Liberia, are contributing to the growing statistics that increased participation of women in peace agreements influences long-term stability (Chang et al., 2015).

**During conflict.** The third and final subprinciple offered by Jensen (2016), contextualized complementarity, identified gender as a relevant factor of qualification for a position. The position is defined to require specific mission requirements that only one gender may be able to fulfill. Multiple examples exist of the most resistant military organizations to the integration of women, which created specialized units that required women. The U.S. Army created Team Lioness in Iraq, the Marines established Female Engagement Teams (FETs) in Afghanistan, and both the Army and Marines formed Cultural Support Teams (CSTs) composed of women (Egnell, 2016). Cultural norms in Afghanistan did not permit the Afghan women to speak to men outside of their family (Jensen, 2016), a common problem for U.S. Marines as they conducted patrols, searches,
and raids (Katt, 2014). The establishment of Female Engagement Teams (FETs) by the 2nd Marine Expeditionary Battalion provided a means to engage local women and understand the medical and humanitarian needs of local villages. These are all examples of specialized roles that women may fill that provide invaluable contributions to missions.

Combining the ethical components of Rawls’ theory of justice with the three Rawlsian subprinciples described by Jensen (2016) may inform the integration of women in the U.S. Army. Historically all-male organizations could be redesigned to address egalitarianism for those who wish to compete for any military position. Other gender-specific positions such as FETs could inform predetermined requirements within specific organizations for women to fill. Finally, an established target of diversification of gender within each organization regardless of mission-specific gender requirements could ensure balanced diversity (Jensen, 2016). Focusing on one organization within a fighting force at a time could provide incremental growth of capability to be task organized based on the missions provided by the higher headquarters. Regardless of the end state or configuration of organizations, opportunities for women in the U.S. Army should be equal to those offered to men in the U.S. Army.

Skills Theory

The U.S. Army fundamentally engages in the development of individual soldiers with the premise that learning of leadership skills is possible. The U.S. Army recruits enlisted men and women from across the U.S. who meet required, fundamental physical
and cognitive skills. From a standard foundation, young, inexperienced men and women learn leadership fundamentals and begin to progress into future leaders through education, training, and experience (U.S. Army, 2015b). The U.S. Army process of future leader development is self-contained and builds on a continuous career-long process of synthesizing knowledge, skills, and experiences. The skills approach leadership theory described by Northouse (2016) also includes the learning of leadership skills. The basis of U.S. Army leader development, like skills theory, is the potential for learning leadership skills and abilities (U.S. Army, 2015b).

**Learned capabilities with skills approach.** In the middle of the 20th-century, organizations sought to measure the ideal senior leader personality traits. Katz (2009) pivoted away from the search for the perfect executive characteristics and presented three skills of effective senior leaders. Unlike less malleable, innate, individual traits, skills infer an ability for development. Katz identified the need for administrators to possess varying degrees of technical skills, human skills, and conceptual skills (2009). His three-skill approach provided the foundation for the skills model later developed by M. D. Mumford, Zaccaro, Connelly, and Marks (2000). M. D. Mumford et al. (2000) expanded the three-skills approach into a model with five components. The first component of individual attributes consisted of traits and abilities less malleable than the second element of competencies. Learning competencies are possible, similar to the elements of Katz’s (2009) three-skills approach. The third component of leadership outcomes is the measure of performance. The fourth component, career experiences, facilitates the
acquisition of capabilities and the development of individual attributes and competencies. The final element of the skills model is environmental influences—external factors that affect the first three elements of personal attributes, competencies, and leadership outcomes (Northouse, 2016).

The skills model is reliant on the competencies that are central to leadership outcomes and influenced by individual attributes, career experiences, and environmental influences. Attributes described the potential influence combinations of cognitive ability, motivation, and personality may have on competencies. The criticism that attributes are trait driven supported an argument that the model is not purely skills based (Northouse, 2016). Additional criticism of the transferability of M. D. Mumford et al.’s (2000) research findings focused on the cultural homogeneity of the research population consisting of commissioned U.S. Army officers.

U.S. Army leadership doctrine includes elements of the models and research conducted by M. D. Mumford et al. (2000). Similar to the skills model of leadership, the U.S. Army leadership requirements model includes attributes and competencies for leaders. Army doctrine directs the cyclical development of soldiers and leaders through an up or out spiral of military education, self-development, and on-the-job experiences. Essential to Army individual development is the premise that an individual can learn leadership skills. It is incumbent upon the leader to ensure the development of subordinates without favor or discrimination (U.S. Army, 2014b) through a process of
institutional education, self-development, and on-the-job experiences (U.S. Army, 2015b).

**Stratification of skills.** As early as 1955, Katz identified a division between traits and skills in his development of skills theory. Returning to Katz’s identification and classification of management skills into three skill types (technical, human, and conceptual), he also described the change in the degree of use of the three skill sets as a leader ascended an organizational hierarchy (2009). T. V. Mumford, Campion, and Morgeson (2007) further refined and expanded Katz’s taxonomy of leadership skills into components of the strataplex model, which includes the four categories of cognitive, interpersonal, business, and strategic skills. Consistent across Katz’s (2009) three-skill approach, M. D. Mumford et al.’s (2000) skills model of leadership, and the later refined strataplex model (T. V. Mumford et al., 2007), is the necessary adaptation of new or expanded skills to accompany upward career mobility.

The research on the mobility of women in the U.S. Army included the examination of career transitions associated with (a) recruitment, (b) promotion, (c) participation, (d) retention, and (e) integration. Successful U.S. Army career transitions for women link to the adaptation of skills attained through education, training, and experience (U.S. Army, 2015b). Consistent with the changing skill requirements described by skills theory models, women in the Army will likely need to adapt changing moderators of gender-based barriers as they ascend the ranks of the U.S. Army as leaders.
U.S. Army Culture

The U.S. Army is a coercive hierarchical rank/grade system with a collective set of values composed of individual service subcultures. The culture of the military is historically masculine supporting traditional values in a highly structured bureaucracy (Arnhart et al., 2015). Studies of the U.S. military culture like Redmond et al. (2015) and Suzuki and Kawakami (2016) describe the unique skills and values of the military that go beyond civilian occupations. Military culture is unified by a warrior ethos, which emphasizes mission accomplishment—the expectation of never quitting or accepting defeat (Redmond et al., 2015). The U.S. Army culture champions the seven values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage (Suzuki & Kawakami, 2016).

Culture in the U.S. Army is sophisticated, and inculcation is so profound that it may contribute to psychological challenges during reintegration into the civilian culture after service (Suzuki & Kawakami, 2016). E. H. Schein and Schein (2017) described three categories of culture applicable to the culture of the U.S. Army: (a) macrocultures, (b) subcultures, and (c) microcultures. Like the nation, the U.S. Army is composed of a macroculture with occupational subcultures and microcultures. Army branches, occupational specialties, and functional areas (e.g., operations, force sustainment) of the Army may develop subcultures. Soldiers described the existing hypermasculine subculture within combat arms units (e.g., infantry, artillery) as “incompatible with a
mixed-gender working environment” (Arnhart et al., 2015, p. 30). Microcultures may also form within teams (E. H. Schein & Schein, 2017) that compose Army units.

The U.S. Army profession described within the Army Doctrine Reference Publication 1 (ADRP 1) concluded with a description of the U.S. Army culture (2014a). Like E. H. Schein and Schein’s (2017) identification of the three categories of culture, the ADRP described three categories of culture within the U.S. Army: (a) assumptions, (b) beliefs and values, and (c) artifacts. Army ethics is prominent within the assumptions and the intrinsic dignity and worth of people (U.S. Army, 2015a). In the study of U.S. Army institutional culture and commitment to values, Allen (2015) found that Army leaders reported integrity (linked to ethics) as the value that best assesses leader effectiveness in the U.S. Army. Beliefs and values proliferate Army regulations and policies. Artifacts are the most visible elements of culture and provide stimulation of the senses (U.S. Army, 2015a) in language, uniforms, flags, traditions, and bugle calls.

There are also complex interactions within a culture or within its subcultures that are not always visible to outsiders. Each branch within the Army, like armor and infantry units, has a unique language, expectations, and customs. The uniforms of the U.S. Army worn daily or during ceremonies provide visibility into the background of an individual and the subculture to which an individual is currently assigned. Uniforms include some patches representing the heraldry of units and current assignments, and other patches depict an assignment with a unit under combat conditions. Successful attendance at
Airborne, Air Assault, or Ranger School authorize wear of additional badges and tabs on the uniform (U.S. Army, 2014c).

A greeting in some subcultures of the U.S. Army may appear as a simple handshake to a casual observer. Previous military culture research conducted by Ashley and Brown (2015) and Weitz (2015) shared the identification of hypermasculinity within the U.S. military. In hypermasculine subcultures of the U.S. Army (Arnhart et al., 2015), a greeting may begin with an apparent observance of badges on the chest of each individual and a glance for a Ranger Tab—awarded after completion of the U.S. Army Ranger School—on the top of the left sleeve. The absence of airborne wings may draw a rebuke by airborne soldiers merely saying *leg* (slang for someone who is not airborne qualified); in some organizations, being a *leg* may be enough to end any further communications between two people. A handshake in which two rings collide may follow with a confirmation question to identify attendance at an academy. A tug of an arm during the handshake can expose the presence of a combat patch at the top of the right sleeve and the unit of assignment when awarded. Unlike the posturing of two peacocks, the masculine posturing of warriors, usually during peace, can be quick and unobservable to outsiders. Those engaged in the ritual are certain of the quick measures taken. Regardless of their differences, two soldiers who meet all share the comradery of service in arms and the pledge of their lives in defense of the nation.
Masculinity in the military

Several studies have examined military masculinity like Connell and Messerschmidt (2005), Eichler (2014), and the related mental health concerns examined by Alfred, Hammer, and Good (2014), Ashley and Brown (2015), and Shields, Kuhl, and Westwood (2017). The mission of the U.S. Army is to fight and win the Nation’s wars (Redmond et al., 2015); inherent to war is the nature of conflict, which is culturally coded as masculine. The social image of the “ideal” soldier may conflate ideas of manhood (Shields et al., 2017), masculinity, warriors (Alfred et al., 2014; Eichler, 2014), men, and combat (Arnhart et al., 2015). The U.S. Army maintains an overall hypermasculine culture (Ashley & Brown, 2015; Shields et al., 2017) and many members demonstrate a masculine gender identity (Arnhart et al., 2015).

From the first day of U.S. Army indoctrination training, socialization includes strict adherence to the hierarchy of rank, a focus on competition, and increasing physical strength. The cultural paradigm of the military is referred to as hypermasculine (Ashley & Brown, 2015; Shields et al., 2017; Weitz, 2015). Aspects of hypermasculinity in military training encourage individuals to overcome fear and pain and to avoid ridicule for being perceived as less of a man (Shields et al., 2017). When the basic training received by all soldiers transitions to specialized occupational training, socialization of masculinity may intensify to a level of hegemonic masculinity (Connell & Messerschmidt, 2005). Chen and Dognin (2017) examined the health impact of hegemonic masculinity and stated the masculine environment in the military might
become very intense for those with combat-related military occupational specialties (MOS) such as infantry, armor, and field artillery.

Duncanson (2015) examined the potential evolution of hegemonic masculinity by changing the value of relationships and identity construction. Hegemonic masculinity can be described as the power struggle between men to attain an idealized model that might transcend hierarchical power. Connell and Messerschmidt (2005) explained that the power was not related to violence, but force might be associated. Hegemonic masculinity provides for dominance over others and includes collective dominance over women. Some researchers, like R. M. Smith, Parrott, Swartout, and Tharp (2014), have also found connections between hegemonic masculinity and sexual aggression as a means to attain intimate dominance over others. Duncanson (2015) argued for the dismantling of hierarchical relations and the discontinued adverse use of feminization to subordinate others for “equality, mutual respect, or empathy” (p. 11). Adopting traits associated with femininity as an adaptation of hegemonic masculinity—as posited by Duncanson—supports the idea that hegemonic masculinity can evolve (Connell & Messerschmidt, 2005). However, its evolution may be slowed in environments where masculinity and hegemonic masculinity are linked to heroism (Ashley, Tapia, Constantine Brown, & Block, 2017).

**Paternalism in the U.S. Army**

Recruited from the U.S. population, men with traditional and paternalistic values gravitate to military service. The U.S. Army GIS included the finding that many men
hold traditional values and feel the need to protect women (Arnhart et al., 2015). Glick and Fiske (1996) described the connection between paternalism and the desire to protect women (seen as the weaker sex) and viewed paternalism as one of the three sources of male ambivalence. As a protector, the social role theory expectation of men, as described by Eagly (1987), highlights men as agentic protectors displaying chivalry, heroism, and honor. The U.S. Army (2015) GIS also included a statement that, “Many male soldiers believe this paternalistic instinct to protect women is both genetic and culturally reinforced” (p. 47).

Soldiers protect each other on the battlefield, but sheltering a peer from harm because they are a woman is a display of paternalism. In Crowley and Sandhoff’s (2017) study, one woman combat veteran in the U.S. Army described her paternalistic experience with men as follows: “They try to coddle you because you are a woman” (p. 234). The protector role manifests as benevolent sexism among co-workers and contributes to the detrimental effects described by Shnabel et al. (2016) as cross-gender helping. The injunctive aspect or prejudice associated with traditional gender norms connects women to the expectation of communal roles and as in need of protection, as believed by many soldiers (Arnhart et al., 2015). When women display agentic traits and not the prescribed communal trait, women incur backlash for behaving outside of this prescribed gender role (Eagly & Karau, 2002; King, 2014).

The Office of the Under Secretary of Defense for Personnel and Readiness (2016b) annual population representation in the military services report for 2015 included
an analysis that soldiers of both genders are married at a higher rate and at a younger age than their civilian counterparts. The marriage rate of enlisted service members in the report is often more than 20% above the civilian rate. One theory to explain this higher rate is that military members may value marriage more than the civilian population, which again is a potential reflection of the traditional values of those drawn to service in the U.S. Army.

**Barriers**

The concentration of traditional values among men in the U.S. Army make generalization of civilian studies less effective. The U.S. Army TRADOC Analysis Center (TRAC) conducted a multiyear GIS. A multimethod study of U.S. Army soldiers contributed to the GIS and resulted in the identification of 17 factors provided in Appendix B, organized thematically into five barriers to the success of integrating women (Arnhart et al., 2015). The five barriers include: (a) inconsistent enforcement of existing standards and perceptions of double-standards, (b) incidents of unprofessional behavior and indiscipline, (c) fear of sexual harassment and sexual assault, (d) cultural stereotypes, and (e) ignorance of U.S. Army policy. Then the U.S. Army Sergeant Major Academy annual student population—consisting of some 400 people, the majority of whom were men—evaluated mitigation controls for each identified factor. The U.S. Army does not credential senior NCOs in women’s studies. Other than the ability to apply years of experience serving with mostly men, the developers of the gender
integration mitigation controls had no expertise to represent the needs of oppressed women of the U.S. Army.

The GIS mitigation controls included the enforcement of standards to restrict access of women to military occupational specialties and the recommendation for commanders to read U.S. Army policies. To mitigate the potential adverse effects of paternalism, leaders are directed to equally assign duties to soldiers (Arnhart et al., 2015); professional leadership without discrimination or favor is a requirement of U.S. Army regulations (U.S. Army, 2014b). Identifying the practices that women feel necessary to moderate gender-based barriers in the U.S. Army may inform needed mitigation controls for the men and women as professionals and leaders.

The GIS (Arnhart et al., 2015) findings and conclusions did not include barriers women face. The research and recommendations were focused on the barriers men face in integrating women in the U.S. Army. Some researchers examined perceived barriers to advancement and facilitators of promotion among male and female executives (Lyness & Thompson, 2000). Challenges encountered as gender barriers to advancement have similarities across male-dominated environments. The groups of barriers established by Lyness and Thompson (2000) include: (a) lack of culture fit, (b) exclusion from informal networks, (c) lack of mentoring, and (d) difficulty getting developmental assignments; they all resemble barriers women face in the U.S. Army (Arnhart et al., 2015).

To expose the sexism in the workplace directed at leadership, Diehl and Dzubinski (2016) investigated gender-based barriers across macro, meso, and micro
levels of society. The women participants, all leaders in male-dominated environments, collectively described 27 categorized barriers. According to Diehl and Dzubinski, control of women’s voices—described as men dominating conversations—is an example of a macro level barrier. Common among other research on gender-based barriers, the authors also identified the glass cliff, lack of mentoring, and tokenism as meso level barriers and work-life conflict at the micro level.

Studies of the U.S. military identified the presence of multi-level barriers like those found by Diehl and Dzubinski (2016). The study conducted by Dichter and True (2015) was composed of interview responses collected from military veterans that departed military service before the participants of the study had anticipated. After interviewing 35 women, factors identified as barriers included work-life balance challenges associated with marriage, children, lack of social support, and oppression. In yet another interview study of 12 women combat veterans, women reported the repeated need to prove themselves (Crowley & Sandhoff, 2017). One woman from among those interviewed stated, “Women are not wanted and even shunned by their fellow soldiers” (p. 234). The gender-based barriers faced by women in the U.S. Army at all three levels—macro, meso, and micro—are real and numerous.

To deal with these kinds of barriers, in 1951, Wolfenbarger et al. (2016) recount the Defense Advisory Committee on Women in the Services (DACOWITS) was established as an advisory organization on matters and policies; it provides recommendations concerning women in military service to the U.S. Secretary of Defense.
In 2016, DACOWITS implemented focus groups, which identified physical fitness standards, pregnancy, and the underrepresentation of women as perceived barriers to gender integration in the military (Gaddes et al., 2016). Then in 2017, additional focus groups conducted by DACOWITS identified work-life balance, military culture, and obtaining developmental positions as the top challenges for women in the military (Corbo et al., 2017).

In addition to the dozens of gender-based barriers identified by the assorted studies outlined in previous sections, there was another complicated element identified by Sojo, Wood, and Genat (2016). They studied the effects of adverse workplace experiences and found the impact of a harmful workplace to be higher in male-dominated work environments. The focus of the GIS (Arnhart et al., 2015) is only part of the challenge related to the integration of women in the U.S. Army. Evidence of the challenges are reinforced by a multitude of gender-based barriers identified by women and encountered in many settings to include male-dominated environments, such as the U.S. Army.

**Sexism**

Among the multiple gender-based barriers women face, sexism is a prevailing challenge. The U.S. Army equal opportunity policy is a guide to support the equal opportunity and fair treatment of soldiers, civilians, and family members of the military. As an Army Regulation (AR), 600-20 Army Command Policy includes the requirement for compliance and provision of equal opportunity and fair treatment “…without regard
to race, color, gender, religion, national origin, and [to] provide an environment free of unlawful discrimination and offensive behavior” (U.S. Army, 2014c, p. 55). The fact that gender discrimination and offensive behavior continue suggests a lack of discipline, a lack of enforcement, a lack of understanding, or a combination of all three.

Glick and Fiske (1996) explained paternalism, gender discrimination, and heterosexuality as the sources of male ambivalence, and is manifested as both hostile sexism and benevolent sexism toward women. The definition of gender discrimination within U.S. Army Regulation, (AR) 600-20, is an act to deprive a person of a right based on gender. Equal opportunity laws and policies are enforceable against overt and intentional acts such as hostile sexism. AR 600-20 also defines gender discrimination as an act that can occur covertly and unintentionally (U.S. Army, 2014b); this is akin to benevolent sexism, which is less overt and less recognizable by victims and perpetrators (Jones et al., 2014). Reporting on analyzed research of gender integration, Segal et al. (2016) stated that the subtle sexist behaviors manifested in benevolence toward women originate from a belief in the need to protect women. Examining the effect of benevolent sexism, Hideg and Ferris (2016) found that perpetrators and victims of hostile sexism and benevolent sexism may not always identify that both elements of sexism are detrimental to women.

Traditional Gender Roles

Research conducted by Rawat (2014) in the development of how to overcome patriarchal beliefs and practice explained the familial hierarchy of a male father (the
patriarch) and female mother (the matriarch) is the foundation of the social, ideological construct of patriarchy. Patriarchal practices empower men with a higher status and superiority over women. Global opinion poll results indicate the widespread presence of patriarchal views (World Values Survey, 2016). The geographically defined International Men and Gender Equality Survey (IMAGES)-Middle East and North Africa (MENA) was executed using an in-depth mixed methods design. IMAGES-MENA questionnaire and interview analysis results aligned with the World Values Survey (2016) in identifying higher patriarchal practices in nonwesternized countries (UN Women, 2017).

Collectively, even with a majority of over 1 million new permanent residents arriving annually from patriarchal cultures (DHS, 2016), the U.S. is believed to possess a low level of patriarchal beliefs (World Values Survey, 2016). A measure of U.S. Army patriarchal beliefs held by soldiers is not explicitly available. The generation known as Millennials (born 1982-1999) support the patriarchal role of husbands in the home (Donnelly et al., 2015); this is a potential concern as most of the U.S. Army’s population (OUSD/P&R, 2016a) are Millennials.

**Concentration of traditional values.** Many male U.S. Army recruits often possess traditional values (Arnhart et al., 2015). Although a shift is measurable in some aspects of prejudice toward women (Bongiorno et al., 2014), this change appears to result from increased liberal attitudes towards women (Eagly & Karau, 2002). The endorsement of traditional values and gender roles within the U.S. Army reduces the potential inference of Bongiorno et al.’s (2014) findings. Since previous researchers relied on the
use of college participants (Berkery et al., 2013; Bongiorno et al., 2014; Donnelly et al., 2015), their findings are not representative and thus are not necessarily an accurate reflection of soldiers with traditional values as observed in the U.S. Army (Arnhart et al., 2015).

Although the November 2017 Gallup workplace poll, reported by Brenan (2017), contained a statistic that a slim majority of the general U.S. population had no gender preference for a boss, in Powell and Butterfield’s (2015) study of gender preferences for bosses, the authors argued that the measure of gender preference used by Gallup convoluted the sex and gender of a preferred boss. Their study included the description of alignment with the self-identified sex-type of the respondents. Further, the authors also found that male respondents indicated a preference for a man as a boss while female respondents preferred a woman as a boss. Taken together, the findings of Berkery et al. (2013) and Powell and Butterfield (2015) suggest a high probability that U.S. Army organizations composed of all men will possess a preference for men, versus women, leaders.

Glick et al. (2015) examined masculine identification and found in-group favoritism. When combined with the male majority population in the U.S. Army (OUSD/P&R, 2016b), and its hypermasculine culture (Shields et al., 2017), a majority preference for male leaders is probable. Further, the U.S. Army GIS includes a finding that many male soldiers viewed soldiering as “men’s work” (Arnhart et al., 2015, p. 47) within an environment of dominance and aggressiveness. The 2017 Gallup workplace
poll indicates greater acceptance of women as leaders (Brenan, 2017) in the U.S., but those attracted to the U.S. Army do not reflect the same level of acceptance of women in the U.S. Army (Arnhart et al., 2015) as the general population.

There is some recent research that supports the idea that women are not accepted or supported to the same degree within the U.S. Army. For example, in their examination of support for women in the military, Laurence, Milavec, Rohall, Ender, and Matthews (2016) found those with more traditional and conservative attitudes are less supportive of women in military roles. The notion of women in combat garnered even less support, as combat assignments can be competitive and typically contribute to increased career success and advancements. To address these challenges, Laurence et al. (2016) recommended the development of implicit bias education programs and change to the socially conservative culture that characterizes the U.S. Army.

**Strategies**

The U.S. Army population is male-dominated with nuanced differences of culture at and within each garrison, base, and fort. During their examination of health impacts related to hegemonic masculinity, Chen and Dognin (2017) recounted that displays of masculinity differ by occupation and role, and DoD annual personnel reports indicated disproportional concentrations of women in medical and administrative occupations (OUSD/P&R, 2016b). Gender-based barriers and the moderators women use are likely to be very different between a hospital setting and an infantry brigade. While increased endorsement for women to hold leadership positions exists, Eden (2015) argued, men and
women in military units still believe the integration of women is detrimental to the lethality and effectiveness of the military. Responding to the concept offered by Brownson (2014) of female equivalency among men and women in the military, King (2014) remarked: “Female integration has been ferociously resisted through discrimination, harassment, and abuse” (p. 2). The combat veterans interviewed by Crowley and Sandhoff (2017) described femininity in the U.S. Army as a weakness and something to be “tolerated” by men; they viewed assimilation to the masculine ideal as necessary. Perhaps not surprisingly, the highest attrition rate of women in the U.S. Army is found in the operational career fields, which tend to be more physically demanding and which tend to start with lower concentrations of women already (Ache et al., 2016).

No one strategy or moderator of gender-based barriers alone will address the social complexities of every organizational culture. However, what remains in this section will describe some of the common strategies used by women that have been identified in previous research on women in workplace contexts. These strategies set the stage for the present study, which supports Rincón et al.’s (2017) recommendation for further research on different measures contributing to the presence of women in top positions.

**Planning**

Developing a plan that identifies objectives, means, and ways to execute a strategy can apply to more than just military operations. Holton and Dent (2017) conducted research using a mixed methods approach of interviews and survey responses
to develop a framework of recommendations for individual women and organizations to approach challenges encountered by women in the workplace. The first three individual blueprint elements included: (a) self-awareness, (b) networking, and (c) career planning. The first individual recommendation for women to develop self-awareness focused on developing self-belief and self-confidence. Bandura’s (1982) work on self-efficacy explained that an individual’s perception of social factors influences individual behavior based on a belief in their ability to perform tasks. A continuum of self-efficacy from low to high corresponds to performance and an inverse relation of emotional arousal. A person’s high expectation or confidence to act successfully in a situation will produce low levels of emotion, demonstrating control. Examining stereotype threat to women in leadership, Hoyt and Murphy (2016) reported emotional responses linked to leadership self-efficacy had been found to benefit women.

The second individual recommendation by Holton and Dent (2017) is networking. In their study, participants indicated the importance of establishing networks as part of career development. D. G. Smith and Rosenstein (2017) examined the influences of role models on the attitudes and intentions of men and women entering the military. They found the identification of female family members as the most influential role models for women. Highlighting the connection between positive role models and self-efficacy, D. G. Smith and Rosenstein recommend that women establish and participate in networking and mentoring programs.
Finally, developing a plan can provide the identification of developmental requirements and targets for career positions. Researchers from McKinsey & Company and the LeanIn.Org (2017) posited that expectations of family requirements for women are above that of men. Tajlili (2014) described work-life integration as a challenge for women in the development of a framework for career planning and work-life integration. Family requirements, when combined with Holton and Dent’s (2017) identified need to have a career plan suggests that women require a method to incorporate work and family demands into a comprehensive plan. Setting a plan that includes promotion expectations and accounts for desired family planning, timing, and roles can inform subsequent career goals.

**Queen Bee**

The queen bee phenomenon is a strategy used by some women to assimilate in male-dominated environments. Derks, Laar, Ellemers, Van Laar, and Ellemers (2016) found that “queen bees” will assimilate masculine attributes, distance themselves from women in junior roles, and legitimize gender inequalities. They also found that women may discontinue the strategy when the practice no longer contributes to the possibility of promotion. This behavior hurts other women (Derks et al., 2016) and, according to the study’s authors, should be avoided on ethical grounds. Similarly, Diehl and Dzubinski (2016) identified the queen bee effect as a potential barrier to other women within an organization. While the queen bee strategy may be beneficial at the individual level
(Derks et al., 2016), it can be detrimental to other women in the organization (Diehl & Dzubinski, 2016).

**Summary**

Within this chapter there is a linkage of the role congruity theory (Eagly & Karau, 2002) to other relevant theories, gender-based barriers, and the male-dominated culture of the U.S. Army. The U.S. Army culture is complex, male-dominated, and in some domains, hostile to women as soldiers (King, 2014). The U.S. Army culture has been described as hypermasculine (Ashley & Brown, 2015; Weitz, 2015) with organizations that practice hegemonic masculinity (Chen & Dognin, 2017; Connell & Messerschmidt, 2005), despite the integration of women into previous occupations only held by men. Even though the former Secretary of Defense stated the requirement to assimilate (Deuster & Tepe, 2016) women, studies of the integration of women into the U.S. Army to date have focused on how to overcome the challenges men have experienced integrating women (Arnhart et al., 2015).

Discussion of social role theory (Eagly, 1987) provided an argument for the expectation of turbulence in the achievement of nondiscriminatory integration of women into new U.S. Army roles (Eagly & Wood, 2016). U.S. Army integration plans and policies should address expected cultural sex roles (V. E. Schein, 1973), and the stereotypical incongruence of sex-differentiated skills. The firmly held beliefs outlined in social role theory (Eagly, 1987), and the barriers women in leadership face, according to
role congruity theory (Eagly & Karau, 2002), may positively contribute to integration efforts if addressed within the U.S. Army.

The two agentic forms of bias and discrimination against women as leaders are descriptive and injunctive (Eagly & Karau, 2002). Challenges to the role congruity theory indicate a changing American culture, accepting women as more agentic, as leaders, and as less communal. However, limited replication of research and the traditional views of soldiers (Arnhart et al., 2015) show the current utility of the role congruity theory to understand and address the descriptive and injunctive bias in the U.S. Army. The literature indicated that soldiers tend to have traditional values that contribute to sexist views and sexism (Arnhart et al., 2015). Benevolent sexism is consistent with traditional values (Glick & Fiske, 1996) and is not viewed by the victim as detrimental in most cases (Jones et al., 2014).

Examination of literature on women’s participation in the U.S. Army revealed a significant change in the participation of enlisted White and Black women over time (OUSD/P&R, 2016b). An expectation of Black women as more masculine than feminine may contribute to the success of Black women in U.S. Army leadership positions. However, White women’s decreasing participation in the U.S. Army is not fully explained by this literature review. The racial differences in the descriptive aspect of prejudice found by Rosette et al. (2016) support the potential for differentiated gender-based barriers and dissimilar advancement of women based on race.
While various strategies exist to increase the career success of women (Crowley & Sandhoff, 2017; Holton & Dent, 2017), the use of strategies by enlisted women in the U.S. Army as moderators of gender-based barriers they encounter is not understood. Findings contained in the GIS conducted by the U.S. Army included the identification of challenges associated with integrating women into the U.S. Army without addressing how women can navigate identified barriers (Arnhart et al., 2015). Also left unaddressed in previous research is the expected dynamic differences of gender-based barriers as women ascend career leadership positions. This literature review concluded with examples of strategies used and/or recommended by women.

The next chapter, Chapter 3, contains a description of the research method, design, instruments, participants, and data analysis within the transformative (Mertens, 2015), mixed methods (Plano Clark & Ivankova, 2016) multiple case study (Creswell, 2014; Yin, 2018), and provide a rationale for their selection for the research.
CHAPTER 3: METHODOLOGY

Introduction

The Office of the Under Secretary of Defense for Personnel and Readiness military services report for 2015 (OUSD/P&R, 2016b) indicates the continued underrepresentation of women in the U.S. Army among senior enlisted ranks and between occupational functional areas. Studies of the patriarchal culture within the U.S. Army have shown the existence of gender-based barriers (Asch et al., 2016; Kamarck, 2016), and have recommended that qualified women assimilate (Deuster & Tepe, 2016) and demonstrate competency (Arnhart et al., 2015). The burden for assimilation placed on the marginalized population (i.e., women; Deuster & Tepe, 2016) requires an understanding of the gender-based barrier moderators used by women enlisted in the Army to increase their recruitment, promotion, participation, retention, and integration. The literature review provided in Chapter 2 focused on theories related to gender-based stereotypes, barriers emanating from cultural values, and strategies used as moderators by women.

In this chapter, a description of mixed methods (Creswell, 2015; Plano Clark & Ivankova, 2016), the transformative paradigm (Mertens, 2015, 2018), and multiple case study design (Creswell, 2014; Yin, 2018) provide the framework, methodology, and design of the research. The research analysis included both quantitative and qualitative questions through an explanatory case study (Yin, 2018) investigation of how women use moderators in the U.S. Army. This chapter includes a description of the research method,
which includes: (a) research method, (b) research design, (c) data collection methods, (d) instruments, (e) participants, (g) data analysis methods, (g) limitations, and (h) summary. The collection of a combination of meta-analysis from existing datasets, interviews and artifacts from women in the U.S. Army converged in analysis and the description that follows in this chapter.

The research includes the methodology of mixed methods with a transformative framework to address the social justice issue of women’s underrepresentation in the U.S. Army, and, more specifically, at highest enlisted ranks. Undersecretary Kendall (2011) of the Department of Defense, responsible for the instruction for DoD-supported research, prescribed the procedures for conducting research using military members. The U.S. Army is responsible for enforcement of any research that includes active duty soldiers and requires the use of previous research if in existence to reduce the use of soldiers as research participants. In some cases, the research questions that follow overlap existing research and are prohibited from inclusion in any additional survey instrument or interview. The U.S. Army research requirements drive this research to the methodology of mixed methods to address the research questions.

**Research Questions/Hypotheses**

The three categories of questions supporting the methodology of mixed methods research are (a) quantitative, (b) qualitative, and (c) mixed methods.

**Quantitative research questions.** Formulation of the quantitative null hypotheses and subquestions will increase the depth of understanding of the overall
research while maximizing the use of existing datasets. H10: No significant group
difference exists between race or rank and enlisted women’s experience of gender-based
barriers in the U.S. Army.

Subquestions related to H10: H1a, H1b, and H1c.

1. H1a: Do minority and nonminority women in the U.S. Army experience
gender-based barriers the same way? (H1a: \( \mu \) White non-Hispanic = \( \mu \) Minority).

2. H1b: Do women of junior and senior enlisted ranks in the U.S. Army
experience gender-based barriers the same way? (H1b: \( \mu \) grade E1-E4 = \( \mu \) grade E5-E9).

3. H1c: Do minority and nonminority enlisted women in the U.S. Army differ in
rates of retention over the span of a career? (H1c: \( \mu \) White non-Hispanic = \( \mu \) Black = \( \mu \)
Hispanic = \( \mu \) Asian)

H20: No significant group difference exists between race, rank, or functional area and
enlisted women’s participation in the U.S. Army.

Subquestions related to H20: H2a and H2b.

1. H2a: Do significant group difference of participation exists between minority,
and majority enlisted women at the rank of Sergeant Major serving in the occupational
functional areas of operations and force sustainment? (H2a: \( \mu \) operations minority = \( \mu \)
operations nonminority = \( \mu \) force sustainment minority = \( \mu \) force sustainment
nonminority).

2. H2b: Do enlisted women in the U.S. Army serving in the occupational
functional areas of operations and force sustainment differ in rates of retention over the
span of a career? (H2b: \(\mu\) Operations minority = \(\mu\) operations minority = \(\mu\) operations nonminority = \(\mu\) force sustainment minority = \(\mu\) force sustainment nonminority).

**Qualitative research questions.** Question 1; What moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major use to support their (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration?

**Question 2;** What moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major find most effective?

**Mixed methods.** How do enlisted women use moderators of cultural, gender-based barriers in the U.S. Army and what variations by race, rank, and occupation functional area (i.e., operations and force sustainment) exist?

**Research Method**

The research design was a transformative (Mertens, 2015), mixed methods (Creswell, 2014; Mertens, 2018; Plano Clark & Ivankova, 2016), explanatory multiple case study using multiple sources of evidence to investigate and provide an in-depth understanding of the contemporary phenomenon (Yin, 2018) of moderating gender-based barriers in the U.S. Army. The use of rich, thick descriptions within this case study research (Creswell, 2014; Merriam & Tisdell, 2016) provided an opportunity for the transfer of information to other settings (Creswell, 2014). The transformative paradigm of social justice, which was coined by Mertens (1999; but see also Romm, 2015), permeated every aspect of the research methodology and design (Creswell, 2014). The research
method included the three elements of the transformative paradigm, mixed methods analysis, and case study design.

The rationale for using the method is fourfold. First, the Department of Defense (DoD) and the U.S. Army restrict access to soldiers for research studies and require the use of existing archival data when research questions and available data overlap. Second, reducing gender inequalities, social oppression, and the underrepresentation of women as senior enlisted Army leaders requires action. Third, recently opened occupations to women are within the operations functional area (e.g., armor and field artillery) while most women in the Army currently serve in force sustainment functional areas (e.g., human resources and logistics). Finally, since men are the majority population within the U.S. Army, they are the audience required to institute policy change or to change the culture in the Army. The inclusion of statistics is a strategy to increase the potential communication of research findings to U.S. Army stakeholders. The use of mixed methods provides a means to support the goals of the research.

**Mixed Methods Research**

The mixed methods approach provides an opportunity to combine quantitative and qualitative analysis into a single study. Within their guide to the field of mixed methods, Plano Clark and Ivankova (2016) considered the use of mixed methods as a means to best understand the purpose of a research study. Within the description of mixed methods research design, Creswell (2015) posited that the integrative nature of mixing statistical results with personally recounted experiences is expected to strengthen
the potential results more than either qualitative or quantitative research may be able to produce alone. Mixed methods provide for independent analysis and the convergence of quantitative and qualitative data or sequential analysis. Sequential analysis permits subsequent analysis to explain or build on the exploration conducted in the previous analysis. Other designs, such as the transformative mixed methods design, incorporate the social justice framework and enable increased mixing of analysis and relevant social justice themes (Creswell, 2015; Plano Clark & Ivankova, 2016). As one element of the mixed methods design, quantitative analysis presents an ability to conduct sequential or concurrent analysis with the immediate availability of quadrennial survey data (OPA, 2017), annual demographics data (OUSD/P&R, 2016b), and the DoD active duty database (DMDC, 2017).

**Quantitative design.** Preliminary research on the participation of women in the U.S. Army contained unexpected differences in the participation of women. The Office of the Under Secretary of Defense for Personnel and Readiness (OUSD/P&R, 2016b) demographics provided for 2015, reported a significant difference in the participation of women when presented by race. The graphic representation depicted in Figure 2.1 of the DoD data provides a stunning visual description. Most notably is the increased representational participation of Black women beginning at the initial leader level of E5. Second, is the continuous decline in participation of White women and the near parity with Black women at the level of E5. Quantitative data analysis is necessary to determine the significance of between-group differences. Datasets provided by the DoD include
responses from the 2016 Workplace and Gender Relations Survey (WGRS) and the Defense Manpower Data Center report (DMDC, 2017; OPA, 2017). The data permit quantitative meta-analysis of survey responses in new ways to compare the significance of the between-group differences.

Figure 2.1. FY17 Active Army enlisted women progression by race and grade. Adapted from “Table B-37. Active Component Enlisted Members, FY17: by Pay Grade, Service, Gender, and Race/Ethnicity,” by Office of the Under Secretary of Defense, Personnel and Readiness, 2018, Population Representation in the Military Services: Fiscal Year 2017.

Available datasets provide responses related to survey instruments that contribute to the research questions. The meta-analysis data will not contribute to the identification of moderators of gender-based barriers used by women and are insufficient to complete the research with quantitative analysis alone. To augment the analysis additional sources of information including artifacts, documents, and qualitative semi-structured interviews are necessary.
Qualitative design. The research included the examination of the contemporary phenomenon of moderating gender-based barriers by women in the U.S. Army. Some of the most experienced and accomplished enlisted women in the Army are those selected for promotion to the rank of Sergeant Major. Quantitative meta-analysis of existing DoD survey datasets (OPA, 2017) and active duty database (DMDC, 2017) provided a segment of understanding of the differences between groups of senior enlisted women in their experiences with gender-based barriers. As outlined in previous sections, the transformative paradigm prescribes interaction between researchers and participants (Mertens, 2015); however, geographic separation and work demands placed on the population prohibits the use of qualitative designs that include multiple interactions or prolonged observations. Use of interactive qualitative designs like collective memory work is prohibitive due to the interaction time required and the relationship between participants and the interviewer. An ethnographic study would have similar challenges to a collective memory work approach requiring prolonged and close interactions between a male officer and female enlisted soldiers.

For example, the interviewer’s official rank and standing in the U.S. Army had the potential to impact participant behaviors and bias responses. A population including junior enlisted and midlevel enlisted participants can result in responses different from senior enlisted advisors as a consequence of military culture and the interviewer’s rank. Senior enlisted participants are less affected by the rank and position of the interviewer compared to junior enlisted soldiers. The gender difference between the interviewer and
participants provided a second complexity and potential for bias. Interactions with the underrepresented population over several years guided the direction of the study. Pilot interviews with active duty and retired women who are U.S. Army Sergeants Major expanded the interaction and helped to refine the semi-structured interview guide.

**Mixed methods design.** Mixed methods research designs include a combination of quantitative and qualitative analysis designs. Access restrictions and the inability to manipulate participant behavior drove the need for multiple sources of evidence and methods of analysis. The Department of Defense (DoD) enforces protection of human subjects and adherence to ethical standards within published instructions that require compliance of service members interested in conducting research with military participants (Kendall, 2011). The U.S. Army directs additional research restrictions and permission requirements before granting access to soldiers. Any research focused on U.S. Army women is subject to extra scrutiny and includes a high likelihood of being denied. Although a research approach may meet all process restrictions for approval, any unit commander of any participant may deny access without appeal.

When a request for soldiers as research participants is made, the U.S. Army Research Institute (ARI) requires researchers to demonstrate the absence of previous survey question responses in DoD releasable datasets. The DoD provided access to survey datasets to reduce the burden of redundant research using soldiers. An exhaustive search of DoD releasable survey dataset questions offered limited support of the research questions. Semi-structured interviews combined with available datasets adequately
addressed the research questions in this study. Applicable supporting datasets, requested
data, and reports provided the necessary data to conduct limited quantitative analysis
using the Kruskal-Wallis one-way analysis of variance and the chi-square test of
independence. Combined with semi-structured interviews, these multiple sources of
information required both quantitative and qualitative methods of analysis.

The use of mixed methods increased the potential collection of realities in
different ways and was responsive to the various information needs of stakeholders
(Mertens, 2018). To reach the U.S. Army stakeholders through this research, being able
to provide descriptive statistics, made possible using quantitative methods, was crucial
because that form of information is highly valued in that community. Likewise, to gain an
understanding of the moderators women use to address the gender-based barriers they
face, a dialogic analysis, made possible using qualitative methods, was appropriate.
Identified by Creswell (2015) as advanced design, the inclusion of the transformative
paradigm completes the research method.

**Transformative Paradigm**

The transformative paradigm involved a perspective focused on human rights,
inequality, and social justice. The social justice lens provided the rationale for the
research and is not necessarily a design choice. The transformative framework combined
with the mixed methods approach enhanced the social justice theme during the
assemblage of data (Creswell, 2015). The conclusions of this research include the actions
women in the U.S. Army use to moderate the social inequities they encounter and the
lack of equal opportunities available because of the gender-based barriers inherent in the institution itself or those created by men (Arnhart et al., 2015). The transformative mixed methods design enabled multiple points of potential convergence of results (Creswell, 2015) to best describe a complex social issue (Mertens, 2015, 2018). Mertens (2015) defined four sets of philosophical assumptions associated with the transformative paradigm that are relevant for the research: (a) ontology, (b) epistemology, (c) axiology, and (d) methodology.

The first philosophical assumption associated with the transformative paradigm, ontology, assumes the presence of multiple realities constructed around social values and different societal power positionalities (Mertens & Hesse-Biber, 2013). Mertens (2015) posited that it is the researcher’s role to collate the multiple layers of truth (e.g., participant experiences) to discover the reality with some degree of significant probability. The second fundamental belief and assumption, epistemology, relates to the nature of knowledge and requires interaction between participants and the researcher. The consciousness of the cultural complexities between the researcher as a man and senior U.S. Army official and the senior enlisted women participants is critical to the research method. The use of the transformative paradigm and the empowerment of women is intended to mitigate existing cultural power issues and imbalanced participation by gender. The third assumption, axiology, aligns with the three central regulatory ethics principles of research that include (a) respect, (b) beneficence, and (c) justice (Mertens, 2015). The final primary component of the transformative paradigm concerns
methodology, which included the need to include the voices of marginalized groups, to consider power inequities, and to connect the research results to social action on behalf of the oppressed and least socially powerful.

**Research Design**

Multiple factors of access, bias, purpose, and the inability to manipulate the behavior of participants, interwoven within the transformative paradigm, combined to illuminate potential supportive research designs of the methodology. The following design description contains an argument for the selection of specific elements of mixed methods and case study design that form the research design. The research design selection addressed the purpose of the study, complemented the research questions, and provided maneuverability within the participant access restrictions emplaced by the U.S. Army. The research design is composed of three mutually supporting elements: (a) transformative paradigm, (b) mixed methods design, and (c) case study design. The research design used is a transformative (Mertens, 2015), mixed methods (Creswell, 2014; Mertens, 2018; Plano Clark & Ivankova, 2016), explanatory type multiple case study (Yin, 2018).

**Multiple Case Study**

The case study is frequently used in qualitative research (Creswell & Poth, 2018); the method was used to contribute to the understanding of a complex social phenomenon (Mertens, 2018). Yin (2018) explained that case study design characteristics include: (a) “how” and “why” research questions; (b) an inability to manipulate the behavior of
participants; (c) an in-depth investigation of a contemporary phenomenon; and (d) the appearance of boundaries between the phenomenon and the context. Yin provided additional characteristics of the case study, relevant when the boundaries between the phenomenon and the context are not clear. They include: (a) coping with the disparity in data points in comparison to variables of interest to produce a result; (b) incorporating multiple sources of evidence; and (c) providing propositions to guide the collection and analysis of data (Yin, 2018).

A case study builds on a defined unit of analysis within a bounded context (Merriam & Tisdell, 2016)—that is, the case (Yin, 2018). A case may take many forms such as an individual (Merriam & Tisdell, 2016), an event, an activity or a group (Creswell & Poth, 2018; Yin, 2018). Once identified, the case is further bound to scope each case as a unit of analysis. The case study method offers a single case study or a multiple case study design (Creswell & Poth, 2018). The multiple case, also referred to as a comparative case (Merriam & Tisdell, 2016) study design, provides for theoretical replication and the strengthening of findings (Yin, 2018).

As with the mixed methods design, the purpose of the research study informs the case study design type selection (Plano Clark & Ivankova, 2016; Yin, 2018). The case study design options are numerous, providing a credible alternative to other research designs when manipulating the behavior of participants is not possible (Yin, 2018). The combination of cases, analysis design, sources of evidence, the purpose of the research,
and the context of the phenomenon may increase or narrow the availability of case study
design options.

Explanatory, descriptive, and exploratory are the three types of case studies that relate to the purpose of the research and can provide a general direction of the case study
design (Yin, 2018). The explanatory case study focuses on explaining how or why
something occurs. The descriptive and exploratory case study design builds
understanding from a sequence of analysis. The descriptive mixed methods case study
involves a series in which a second analysis expands on previous analysis. In the
exploratory design, the first analysis technique informs a second (Yin, 2018). An
example of an exploratory design might be qualitative research to explore a topic and use
the findings to build a survey instrument.

Propositions can help narrow the field of design choices to a manageable
selection, and then a comparison of viable models is possible through the use of
evaluation criteria (Yin, 2018). The four conventional social science measures of
construct validity, internal validity, external validity, and reliability provide evaluation
criteria for the quality of case study designs. The case study design offers numerous
options that can be reduced to a single most effective design and compared against
evaluation criteria to choose the best available option for any case study research.

**Case Study Design**

When combined, quantitative and qualitative analysis forms a mixed methods
design that researchers can use to evaluate a single case or multiple cases (Plano Clark &
Ivankova, 2016; Yin, 2018). The multiple case study includes two cases to compare between-group differences, and the parallel mixed methods design aligns with the use of the explanatory case study as described by Yin (2018).

A case study has several elements that include propositions, the case, unit of analysis, how the case is bound, and a contemporary phenomenon. The role congruity theory (Eagly & Karau, 2002) is the substantive theory (Punch, 2016) used to explain the social conditions contributing to the discriminatory practices experienced by women in the U.S. Army (Arnhart et al., 2015). In alignment with the role congruity theory, the case study propositions include: (a) women face gender-based barriers in the U.S. Army, (b) cultural barriers change as women ascend the U.S. Army leadership hierarchy, and (c) women’s attrition differs by race and functional area. The multiple case study design consists of two cases: (a) women serving in the operations functional area (e.g., armor and field artillery), and (b) women serving in the force sustainment functional area (e.g., human resources and logistics). An individual woman is the primary unit of analysis. Women selected for promotion to the rank of Sergeant Major in the Army bind the cases. A purposeful selection (Patton, 2015) of enlisted women serving in operations and force sustainment functional areas provided descriptions within each case of behaviors and strategies women perceived as moderators of cultural, gender-based barriers in the U.S. Army. The context of the propositions, the case, unit of analysis, binding of the case, and contemporary phenomenon surrounded by the transformational framework reinforced the social justice concept throughout the research design.
**Transformative framework.** The fundamental philosophical assumptions of the transformative paradigm described by Mertens (2015) combined with the context of the environment in which the research took place guided the design choices. The transformative ontology accepts a single reality with the potential of multiple perceptions of that reality influenced by societal power positionalities (Mertens & Hesse-Biber, 2013). Use of multiple sources of evidence and case replication provided triangulation of analysis to form a holistic understanding of the phenomenon of how women in the U.S. Army moderate gender-based barriers. The second assumption of epistemology requires an interaction take place between participants and the researcher; the research must not be distant from the participants. Interviews provided interaction and a voice for marginalized groups as an element of the third assumption of methodology. Analysis of the power inequalities between the researcher, the environment, and the participants informed the participant protections and research design. The final transformative assumption of axiology shares the common practices of respect, beneficence, and justice required by any ethical research. As a less common term, beneficence requires the maximizing of good outcomes; in this case, for individual research participants, and for minimizing their potential risk or harm. Within the transformative paradigm, justice means seeking social justice for an oppressed or marginalized group (Mertens, 2015), which in this study, involves women in the U.S. Army and their experiences.
Data Collection

Executed concurrently, individual interviews, and quantitative analysis of Department of Defense (DoD) datasets (DMDC, 2017; OPA, 2017) provided a means to study each case and provide a descriptive comparison of women’s experiences in the U.S. Army. Collection of data occurred through archival research data made available from the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD/P&R), Defense Manpower Data Center (DMDC), and semi-structured interviews of individual participants. Collection of data from active duty soldiers required adherence to published DoD instructions (Kendall, 2011) that increased the complexity of legally collecting data from soldiers.

Senior enlisted, active duty U.S. Army women were the target population for data collection during semi-structured interviews. The population of women selected for promotion to the highest enlisted rank of Sergeant Major (pay grade of E-9) was identifiable by name within an annually published promotion list. The promotion list included basic individual information to include military occupational specialty (MOS) of each soldier on the list. Identification of individual MOSs provided the information required to execute a purposeful selection of participants for each of the two cases. The two cases included soldiers with occupational specialties within the functional area of operations and force sustainment. The military global email list and or Army Knowledge Online (AKO) personnel white pages provided the ability to identify email addresses to contact the research population. Enrollment confirmation of the population of students
attending the U.S. Army Sergeant Major Academy (USASMA) was requested from the USASMA and email addresses for each female active duty student.

Denial of access to active duty soldiers was a possibility requiring an alternative participant recruitment strategy. All Sergeants Major must complete the USASMA in residence or distance learning course as a requirement to retain the rank of Sergeant Major. If an alternate method of identifying participants were necessary, retired Sergeants Major would have become the primary population for participant recruitment. An initial contact email for all potential participants solicited willingness to participate in this research (see Appendix C). To increase understanding of each participant’s career path and reduce the length of the interview, each participant was asked to voluntarily provide a copy of their individual Enlisted Record Brief (ERB). The voluntary provision of participants’ ERB provided the history of education, occupational specialty, assignments, and promotions of each participant. The email also included the organizational informed consent form (Appendix D) signed by the USASMA Commandant permitting the study to include active duty soldiers. Purposeful selection of each willing participant populated each of the two cases. An insufficient response rate to populate the two cases initiated a second and third reminder email to the population. Failure to fully populate the cases with no fewer than five participants each would have required augmentation using the alternate method of retired Sergeants Major. Contact with each respondent to the solicitation confirmed selection and participation in the study and allowed for the coordination of semi-structured interviews.
Interviews conducted during this study were semi-structured, recorded, and transcribed. A pilot interview with three retired female Sergeants Major informed refinements to the semi-structured interview questions. The pilot interviews informed the semi-structured interview length, planned for 45-60 minutes. The qualitative approach included five to seven semi-structured interviews with women purposefully selected within each case to capture a holistic description of women’s experiences and provide in-depth understanding (Yin, 2018). For any interview exceeding the scheduled 45-60 minutes, permission to continue was sought from participants. One participant was unable to continue with the interview and a request was made for an additional meeting to complete the interview. All participants completed the interview and were thanked for their time. Any fewer than five complete interviews within any case would have required replacement participants until the collection of no fewer than five full interviews within each case was complete. After each interview, participants were asked for permission to conduct a follow-up interview and whether they were willing to review the draft report as part of the member checking process (Merriam & Tisdell, 2016).

Interview data analysis combined with analysis of archival datasets provided by the Defense Manpower Data Center (DMDC) contributed to an integrated analysis and final case study narrative description of the research findings. To gain access to previous survey question responses archived in DoD releasable datasets the U.S. Army Research Institute (ARI) required the submission of a formal request for specific datasets. The ARI procedures required each request to include a potential benefit to the U.S. Army. When
ARI approved the requests, the contact information for the managers responsible for the maintenance of the requested dataset was made available for direct coordination.

Additional statistical information from the active duty master file was requested through the DMDC Data Request System (DMDCRS). Access to the requested information required a DMDCRS account. With an activated DMDCRS account standard reports from the DoD master personnel file were made available. Specific custom data requests were also possible with a DMDCRS account. To understand specific variables associated with the entire population of active duty Sergeants Major in the U.S. Army, a request for specified variable data within the active duty master file was granted. ARI approved all archival data requests to support the research, requiring the collection of semi-structured interview question data to complete the process of data collection.

**Instruments**

Collection of qualitative and quantitative data contributed to the research design and required interview questions and DoD archival data as the sources of information. The interview instrument included in Appendix A guided each semi-structured interview. The additional instrument used to collect DoD archival data and report data is detailed as sources of information and not instruments employed for the collection of new data during the execution of this study.

The instrument included in the research design is a semi-structured interview (Patton, 2015). Semi-structured interview questions consisted of background and behavior type questions. Most interview questions involved past and present behaviors.
Preliminary quantitative data analysis informed the composition of interview questions along with remaining interest areas of questions originating from the PBCA and QE scales (Briggs, Jaramillo, & Weeks, 2012; Schuck & Liddle, 2004). Three pilot tests of the semi-structured interview provided feedback on the interview questions and increased the trustworthiness of the interview instrument (Creswell, 2014; Mertens, 2018).

Sources of Information

Through the Office of People Analytics (OPA), the DoD developed and used an instrument to generate the 2016 Workplace and Gender Relations Survey (WGRS) archival datasets (OPA, 2017) that were used in the execution of quantitative analysis. The WGRS addressed several desirable aspects of the perceived barriers to career advancement scale (PBCA scale) survey instrument developed by Lyness and Thompson (2000) and the quality of experience scale (QE scale) survey instrument of Schuck and Liddle (2004). The WGRS is a congressionally-mandated survey that has been conducted every 4 years since 1988. The 2016 WGRS focused on the pervasiveness of sexual harassment, sexual assault, gender discrimination, and gender relations in the DoD. Updates to content areas and survey questions in 2016 limit the possibility of longitudinal analysis of the available datasets. The survey included data gathered from stratified random sampling and was distributed across the entire active-duty force of the DoD with random sampling within defined groups (OPA, 2017). The response scaling for the survey included categorical selections and various Likert scales.
Lyness and Thompson (2000) examined perceived barriers and facilitators of advancement differences between male and female executives and established the perceived barriers to career advancement scale (PBCA scale). The PBCA scale included 26 factors sorted into six groups. The group headings of lack of culture fit, difficulty getting developmental assignments, and difficulty obtaining opportunities for geographic mobility provide the most significant alignment with the research questions.

The quality of experience scale (QE scale) developed by Schuck and Liddle (2004) included 35 factors to measure the quality of women’s experiences in leadership roles. Their research included 93 women in corporate management positions that described their experiences in the workplace. Schuck and Liddle developed a concept map portraying seven clusters that identified groups used in the QE scale. Elements of the PBCA scale and the QE scale aligned with the first and second quantitative research questions.

The dependent variables available for meta-analysis within the WGRS and linked to the PBCA and QE scales include (a) hostile work environment, (b) equal opportunity, (c) gender discrimination, and (d) sexual harassment in the workplace (OPA, 2017). The response scaling for the variables identified for analysis within the survey included categorical selections for the variables of equal opportunity, gender discrimination, and sexual harassment in the workplace. The response scale used for the variable of hostile work environment and reenlistment intent used a 1-5 Likert scale with a neutral middle point. The adverse experiences and perceived barriers in the survey responses provided
an opportunity to measure the between-group differences of those women intending to reenlist.

The remaining data for analysis did not include an instrument and are provided by the Defense Manpower Data Center (DMDC, 2017) reporting system, within the DoD active duty master file as of September 30, 2017. The record included the variables of a soldier on active duty in the U.S. Army holding the pay grade of E9, gender, race, occupation, and years of service. Further demographic information was available within the Office of the Under Secretary of Defense, Personnel and Readiness (OUSD/P&R, 2016b), report on population representation in the military services, fiscal year 2015. The WGRS instrument (OPA, 2017) and the interview instrument addressed the research questions with additional sources of information and contributed to the overall case study analysis.

Participants

A purposeful sample (Creswell, 2014) was drawn from the information-rich (Patton, 2015) annual class of 62 female active duty students attending the U.S. Army Sergeants Major Academy (USASMA). Criteria for selection into each case include individual military occupation specialties within the functional areas of operations and force sustainment. The Department of Defense (DoD) enforces protection of human subjects and adherence to ethical standards within published instructions that require compliance of service members requesting access to military participants for the conduct of research. Department of Defense Instruction (DODI) 3216.02: Protection of human
subjects and adherence to ethical standards in DoD-supported research required the consent of an approved determination official. The U.S. Army Training and Doctrine Command (TRADOC) designated an official as the human protection administrator to support the U.S. Sergeant Major Academy and supervise the acceptance of protocols. Further, the commander of the individual soldiers must provide permission for the participation of students. The organizational consent form provided in Appendix D documented the approved organizational consent on behalf of the U.S. Army. The potential existed for the U.S. Army to deny access to the students; thus, an alternative population was also necessary.

An alternative population was a purposeful sample selected from a pool of participants compiled from a personal network of referrals of retired Sergeants Major using the snowball method. Patton (2015) has argued that no predetermined sample size exists for qualitative research; instead, the sample size is dependent on the depth and richness of participant responses and the “expected reasonable coverage of the phenomenon given the purpose of the study and stakeholder interests” (p. 314). Yin (2018) stated that as few as three participants are adequate for case study research. To ensure replication within each of the two cases as described by Yin (2018), the sample required two purposefully selected groups of five to six women from the population of 62 female students or the alternate snowball population of retired Sergeants Major. Based on the recommendations provided by Patton (2015), and Yin (2018), the aggregated
contribution of 12 participants produced the desired saturation and replication necessary to support the desired trustworthiness of the research.

The population and sample for the quantitative analysis originated from the DoD, Office of People Analytics (OPA) data file. The data file originated from research conducted for the WGRS of active duty members. The survey was drawn from a random sample of 151,010 from a population of 735,329 active duty service members across all services (OPA, 2017). From a population of 53,000 active duty female Soldiers, 8,783 women responded, comprising the WGRS dataset made available for analysis. A final dataset of the entire population of active duty Sergeants Major provided by the Defense Manpower Data Center (DMDC) is inclusive of all 3,330 Sergeants Major and all 280 women within the population of Sergeants Major as of December of 2017.

**Interview Participants**

The process to attain the necessary Department of Defense (DoD) permissions for non-DoD institutions to conduct research and attainment of the Health and Human Services (HHS) assurance number spanned several months. This process was complicated by the transition of educational oversight of the Academy to the Command and General Staff College, as the Academy is now a degree-producing organization. Upon completion of the administrative review, a request for permission was sent and attained by the Commandant of the NCO Leadership Center of Excellence to conduct interviews with students of the Sergeants Major Course.
In addition to a signed copy of the organizational consent form (Appendix D), the Director of Education provided a Sergeant Major Course class roster of 62 women assigned to the academy and attending the course. The class roster included individual contact information and limited demographic information necessary to identify the functional area of service of each of the students. The composition of the 62 women attending the course included 14 women serving in the operations functional area and 48 serving in the force sustainment functional area. The class participants represent a purposeful sample, as described by Creswell (2014), of women selected for promotion to the highest enlisted rank in the U.S. Army. The students attending the Sergeants Major Course will all be promoted to the rank of Sergeant Major no later than the course graduation day in June.

As Patton (2015) described among the levels of attainable information, drawing from the class participants of the Sergeant Major Course provided an opportunity for information-rich responses. After sorting students by individual military occupation specialties (MOSs) and functional areas, selection of participants into each case was only randomized for women serving in force sustainment MOSs. All 14 women with operational MOSs were invited to participate (Appendix C) in the study. Two (14%) of the 14 women responded as willing to participate. An invitation to participate was repeated four times to all nonresponding students, which resulted in five scheduled interviews within the operations case.
Randomly sorted by MOS, 14 women with different MOSs serving in the force sustainment functional area received an invitation to participate in the study. Initially, with a 36% response rate, five women expressed a willingness to participate in the study. Two more women randomly selected by MOS, different from previous respondents, also received an invitation to participate bringing the total invitations sent to 16 to populate the force sustainment case. Two additional positive responses to participate, one from the original 14, increased the total to seven women responding and willing to participate in the study.

All interviews were scheduled over four days and conducted in person at the NCO Leadership Center of Excellence, located at Fort Bliss, Texas. All responding students who selected an interview time arrived as scheduled. The Chief of Education for the Sergeants Major Course provided an unoccupied space to conduct interviews. All participants were offered an alternate location away from the Academy to conduct the interview. All participants declined the use of an alternate location.

**Protection of Participants**

Legal prescriptions define necessary protections for human participants as does the fundamental axiological belief of the transformative paradigm that the research adopts. Unit commanders control the life of a soldier by the assignment of tasks and missions in a way unique from civilian employees. The potential for harm from retribution requires the full measure of protection of any potential participant. Execution of the study required the approval of two Institutional Review Board (IRB) processes.
The City University of Seattle conducted the first IRB approval process as is customary for enrolled researchers requesting to do research that includes human participants. The Army TRADOC designated human protection administrator for the U.S. Army Sergeant Major Academy (USASMA) also conducted an IRB before approving the research. Final protection of the students was the responsibility of the USASMA Commandant, and the Commandant was the final authority to authorize interactions with USASMA students.

In this study, the findings and conclusions were used to produce an in-depth understanding of the gender-based barriers women experience in the real-world context of the U.S. Army. Yin (2018) compared case study participant protections to those found in medical research. Drawing on these insights, the following considerations were made to ensure (a) the informed consent of participants, (b) protection of participants, (c) their privacy and confidentiality, and (d) equitable selection of participants. A review of the protection measures took place before interviews, as recommended by Punch (2016), and each participant provided written consent. Included in Appendix E, the written consent form described aspects of the interview including: (a) audio recording of the interview, (b) selection of a mutually agreed-upon location that offers privacy and confidentiality, (c) the estimated length of the interview (i.e., between 45-60 minutes), (d) the use of pseudonyms for each participant, and (e) the ability for participants to withdraw from the study at any time. Additional protections for military participants must ensure (a) supervisors do not influence participant decisions to participate in the study, (b) supervisors are not present at the time of participant recruitment, and (c) assignment of an
ombudsperson if the study is determined to be greater than minimal risk to the participants (Kendall, 2011).

Participants were also informed that all data would be locked within a password-protected file maintained on an external hard drive. All research data will be securely stored for 5 years, following which all data will be permanently destroyed.

**Data Analysis Methods**

Data analysis included four of the five techniques described by Yin (2018); these include pattern matching, linking data to propositions, explanation building, and cross-case synthesis. Given the availability of datasets, quantitative analysis began before scheduling the interviews. Results from the quantitative analysis influenced the interview questions created and allow early analysis integration. Quantitative analysis using SPSS enabled the measure of medians between the operations case and the force sustainment case for variance using the Kruskal-Wallis one-way analysis of variance, a chi-square test of independence, and frequency counts as described by Salkind (2014).

The quantitative hypotheses include that there is no significant group difference in the race or rank of female U.S. Army soldiers and their experience of gender-based barriers. Further, the quantitative hypotheses include that no significant group difference of participation exists among minority, and nonminority enlisted women at the rank of Sergeant Major serving in the occupational functional areas of operations and force sustainment. The Workplace and Gender Relations Survey (WGRS) conducted by the DoD addressed several desirable aspects of the perceived barriers to career advancement.
scale and the quality of experience scale survey instrument (Lyness & Thompson, 2000; Schuck & Liddle, 2004) supporting the first quantitative research question. Remaining desirable aspects of the two scales related to the qualitative research questions combined to inform the qualitative semi-structured interview questions. The results of this analysis combined with the information gathered from the qualitative questions to shed light on how female enlisted leaders use moderators of gender-based barriers in the U.S. Army.

**Quantitative Analysis**

Analyzing the quantitative study data involved determining the between-group difference of nonparametric dependent variables and independent variables. The Workplace and Gender Relations Survey (WGRS) and the Defense Manpower Data Center (DMDC) report provided data that are exclusively nonparametric resulting from nonstandard distributions and nominal variable data (DMDC, 2017; OPA, 2017). First, the Kruskal-Wallis one-way analysis of variance determined the existence of between-group difference (Salkind, 2014) of the independent variable of sex (i.e., women) consisting of four independent group categories, within the WGRS dataset (OPA, 2017). No participant was a member of more than one category of either the dependent variable of hostile work environment measured at the interval level or the second separately measured dependent variable of intention to reenlist at the ordinal level of measurement. The distribution within each dependent variable was nonstandard but similar among categories. Response rates for all variables met or exceeded 95% in all areas.
**Kruskal-Wallis Test.** The Kruskal-Wallis test identified a difference between the independent variable of sex (i.e., women), which was composed of four categorical independent samples: (a) minority women, E1-E4, (b) minority women, E5-E9, (c) nonminority women, E1-E4, and (d) nonminority women, E5-E9. The ordinal dependent variables measured independent from each other included: (a) hostile work environment and (b) intention to reenlist. The null hypothesis is rejected if \( p \leq 0.05 \) between any category. When the null hypothesis was rejected, a posthoc Mann-Whitney \( U \) test provided pairwise analysis to identify between category group differences at a \( p \leq 0.05 \). The analysis maintained a 95% level of confidence.

**Chi-square test.** The second test to measure between-group difference was the chi-square test of independence; it was used to determine if the distribution observed was what was expected if the distribution was equivalent to chance (Salkind, 2014) and the independence of groups. Use of the same independent variable of gender and four subcategories as the Kruskal-Wallis one-way analysis of variance determined the independence of the discrete WGRS dichotomous dependent variables of (a) gender discrimination, (b) sexually hostile work environment, and (c) sex-based military equal opportunity violations (OPA, 2017) with a 95% or greater level of confidence and \( p \leq 0.05 \).

Requested 2017 data of male and female Sergeants Major in the U.S. Army, provided by the Defense Manpower Data Center (DMDC, 2017), included frequency counts. Finally, analysis using the chi-square test of independence (Salkind, 2014)
provided occurrence difference, if any at a $p \leq 0.05$, among the independent variables of race and sex within the dependent variable of functional areas of service.

**Qualitative Analysis**

Qualitative data analysis began during the process of data collection, after completion and transcription of the first interview. The coding process followed the coding process described by Creswell (2014) and the evaluative text analysis phases described by Kuckartz (2014) when conducting computer-aided qualitative data analysis (QDA). After reading the entire transcribed interview, and field notes annotated during the interview, key segments and keywords were identified. Line-by-line coding was completed with MAXQDA software using an open coding process (Creswell, 2014) and sorted within the five interest areas of recruitment, promotion, participation, retention, and integration. The identification of participant-stated behaviors and strategies perceived as beneficial to women’s career enhancement in the U.S. Army were the focus of the coding process and in vivo type coding.

**Interview Transcripts and Coding**

A total of 12 interviews resulted in five from women with operations MOSs and seven from women with sustainment MOSs. The interview questions, provided in Appendix A, focus on the five areas of interest: (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration. Two interview questions specifically focused on the identification of the most effective moderators of gender-based barriers and what men in the U.S. Army need to know about women in the Army. Voice
recognition software was used to assist in the process of transcribing interview recordings. After completion of each transcript and review for quality, participants received completed transcripts for comment on the accuracy of the content. One participant provided an update to the transcript.

Interview audio files were imported to MAXQDA as documents, populated with interview questions, and responses from previously completed transcripts. The integration process included the creation of identifying time stamps at the beginning of each transcribed paragraph. Each paragraph identified the transition between interview questions and responses. Eleven participant ERBs were also added as documents in the MAXQDA data file, and a set for both the operations case and the force sustainment case was created in the MAXQDA data file in preparation for future analysis.

The MAXQDA software provided multiple means of coding with the use of highlighted colors, the creation of new codes, in vivo coding and emoticodes. Transcribing the interviews provided an opportunity to read over each transcript multiple times. Gaining familiarity with the content of the transcripts biased the in vivo coding of: (a) education, (b) mentor, and (c) deployed while electronically highlighting relevant paragraphs, and text with different colors.

Following the process of coding transcripts described by Creswell (2014), the first review included the highlighting of key segments of text and in vivo coding. The qualitative research questions provided the five interest areas used to sort diverse categories, while the inductive analysis process described by Patton (2015) generated
categories. The second review of four transcripts focused on an open coding process (Creswell, 2014) to identify additional codes relevant to the evaluative categories of enlistment, promotion, participation, retention, and integrations. Each new code included the creation of a definition to ensure a consistent selection of relevant text and passages. The process continued until codes replaced electronically highlighted passages and text.

Organization and sorting of diverse categories for evaluation and comparison between cases within the code table began with the five interest areas: (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration. The second review of the data was a coding of the entire dataset. When uncertainty of how to code a relevant segment arose, the text was highlighted and noted for further consideration. Association of the five interest areas to relevant text segments created an aggregation of like codes. Similar codes facilitated the creation of a hierarchical relation of categories within each of the five interest areas. The second review was completed after refining the code descriptions.

A third review of the data concluded with all individual behaviors stated by participants coded to capture all moderators of gender-based barriers within the MAXQDA software and to evaluate the need to isolate moderators within coded sections. The coding of all behaviors regardless of any prior coding created redundant coding of most text segments. Retrieval of all segments coded as behavior allowed a systematic contextual review of each coded behavior. Review of behavior coded segments included the combining of similar contiguous text behaviors, when relevant, and the recoding of
some segments coded as behavior to the category of gender specific. Interpretation of by line focused coding informed the classifying of subcodes and a MAXQDA summary grid. Gender-specific codes were compiled as subcodes within related categories when applicable. The behavior review ended with the elimination of, and/or categorization of, all text segments previously coded as a behavior.

Examination of a MAXQDA summary grid informed the identification of recurrent patterns and the ability to compare codes (Kuckartz, 2014) between the two cases influenced the need for a final review of coded segments. The final review ensured sufficiently available context within each of the coded segments. A final review of the code table, subcategories, and summary grid replicated the process of winnowing (Creswell, 2014), aggregation, and the hierarchy of codes within each of the five interest areas. A review of category definitions for accuracy completed the final review.

After reviewing the research questions and interview categories derived from the responses, categories were distilled into themes (Creswell, 2014). Theme development first occurred within the operations case and then the force sustainment case. Identified themes from each case were then evaluated for cross-case themes. Identification of cross-case themes provided an opportunity to compare similarities between the cases and areas of divergence. Quantitative analysis identification of the existence of differences between groups or not combined with cross-case themes for a more complete description of each case study.
Integration

The distilled purpose of the research was to understand and explain the moderators of gender-based barriers in use by women in the U.S. Army. Plano Clark and Ivankova (2016) argued the integration of quantitative and qualitative data is a vital element of mixed methods research, and the reason for such an approach is to best understand the purpose of a research study. Use of an appropriate mixed methods integration process of interview data analysis combined with the analysis of archival data provided by the Defense Manpower Data Center produced integrated analysis and a final case study narrative description of the research inferences and findings.

Integration approaches included combining or connecting quantitative and qualitative data. The combining approach included a comparison of the data after collection and analysis. Comparisons were conducted in sequence and then concurrently. Use of the connecting approach required a sequential analysis of the first data to inform subsequent data collection (Plano Clark & Ivankova, 2016). Creswell (2014) explained an integration approach of embedding as a third element of research design and mixed methods research. The embedded approach is described as embedding qualitative data supporting quantitative data, common in the development of an intervention design (Creswell, 2015). A critical review of the results concluded the mixed methods integration process with interpretation (Creswell, 2014) or the production of inferences (Plano Clark & Ivankova, 2016).
The purpose of the quantitative research questions was to identify the presence of career barriers and the presence of differentiated barriers between groups of women of different ranks, race, and functional area. Availability of archival data provided an opportunity for quantitative data analysis to commence before the qualitative interviews began. The integration design was a convergence of analysis, but a sequential analysis opportunity was available and the initial quantitative analysis results improved the construction of the semi-structured interview guide. The convergence of quantitative results with qualitative interview results, as described by Plano Clark and Ivankova (2016), aligned the quantitative evidence of gender barriers encountered between groups of women and the qualitative moderators described by participants during interviews. The analysis of these two cases determined there were shared moderators of gender-based barriers in use by women in the U.S. Army, and differentiated moderators were also used to address gender barriers specific to women assigned to an operations functional area. Final inferences were determined after a critical review of the convergence approach results and incorporated into the case study narrative.

Trustworthiness

Consistent with the recommended use of construct validity, internal validity, external validity, and reliability recommended by Yin (2018), the quality of the case study is measured using the four quality tests. The use of multiple tactics within several tests and the convergence of tests is also consistent with Yin’s recommendation to increase the quality of a case study.
**Construct Validity.** Five sources of data increase the construct validity and support the mixed methods case study with multiple sources of evidence recommended by Yin (2018). Three sources of data supported quantitative analysis, two sources of data supported qualitative analysis and all five together supported integrated analysis. The most extensive data source was the congressionally mandated Workplace and Gender Relations Survey (WGRS) conducted on a quadrennial cycle since 1988 (OPA, 2017). The WGRS was the primary data source for the quantitative analysis. CNA’s 2016 Population Representation (PopRep) in the Military Services (OUSD/P&R, 2017b). Also, a congressionally mandated report was the second source of data to describe U.S. military personnel characteristics. U.S. Army-specific data were extracted from the CNA PopRep for analysis of gender, race/ethnicity, and pay grade. In response to data requests, the Defense Manpower Data Center (DMDC) provided the final datasets used in the study extracted from the Department of Defense master active duty file. Two sources of data specific to the qualitative and convergent analysis of the cases were drawn from semi-structured interviews and enlisted records briefs (ERBs).

Supporting the construct validity of the study, a chain of evidence was maintained using the qualitative data analysis software MAXQDA. The SPSS version 25 software export of findings and import to MAXQDA added to the chain of evidence and the systematic record to link findings back to the research questions. Finally, following the recommendation by Yin (2018) to increase construct validity with pilot interviews, interview responses illuminated the need for changes to the semi-structured interview
script, questions, and process. The three pilot interview participants—a recent graduate of the Sergeant Major Academy, a Command Sergeant Major holding a nominative position, and a retired Command Sergeant Major—reviewed the study’s results as key informants. Each pilot participant had different occupational backgrounds that include operations and force sustainment functional areas. Sequence and wording of interview question updates resulted after the responses provided from the first participant. Subsequent pilot interviews resulted in refinement of question-wording. Recommendations were adapted from pilot participants to withhold the interview questions until the time of the interview (not provided in advance). Receiving the questions in advance slowed participation in the pilot and responses were easy to recall. A recommendation was also made to withhold the identity of the interviewer as a senior commissioned officer in the U.S. Army to minimize biased responses. No correspondence was ever sent from the interviewer’s military accounts. When asked about military service, truthful responses were provided to interview participants.

**Internal Validity.** Evaluation of internal validity included Mertens’ (2018) recommended practice of using member checking, cross-case analysis as described by Yin (2018), and pattern matching. Interview participants contributed to member checking and reviewed the transcribed interviews. One interview participant returned a point of clarification emphasizing her faith as a source of strength. Each participant also received a final copy of the report for feedback and validation. Pattern matching was used to
examine between-group similarities and differences in responses and results. Identified contrasts in results contributed to the findings and discussion.

**External Validity.** The study included multiple sources of evidence. The most notable sources of evidence included Department of Defense (DoD) survey responses and interview transcripts. Active duty master files maintained by the DoD informed reports produced by the DoD contracted organization CNA and provided the source for requested datasets. The variety of sources, to include ERBs provided by interview participants, added contributions to the external validity of the study. DoD surveys included long-tested random sampling techniques. The limited case size lacked random selection of the operations case participants, as all 14 were invited to participate, with the target of five responding and completing interviews. Randomization of selection was included in the selection process of the much larger force sustainment pool attending the Sergeant Major Course. The final contribution to external validity was the replication of logic as defined by Yin (2018). The study design while limited to two cases provided increased external validity over the use of a single case. The differences predicted in each case were supported by the role congruity theory that suggests the correlation of greater role incongruity with the increased presence of gender-based barriers for women (Eagly & Karau, 2002) in the U.S. Army.

**Reliability.** The descriptive writing of the complete sequence of tasks and findings ensured replicability and contributed to the reliability of the study. Guided by the recommendations of Yin (2018), disparate data sources and analysis converge within the
MAXQDA software to form a systematically organized collection of data. Pilot interviews previously described increased the reliability of interview questions by informing the action of clarifying edits and adjustments to the structure of the questions.

**Limitations**

The identification of limitations informed the scope of the research and the use of mitigating techniques. Participant ability to articulate experiences varied the responses among similar experiences. Self-reported survey and interview data were not independently verifiable. The examination of successful moderators through self-reported data may have introduced social response bias and an overestimation of positive aspects (Meadows et al., 2016). The use of member checking (Mertens, 2015) and an opportunity for participants to contact the researcher with remembered behaviors and strategies provided techniques to mitigate the impacts of this limitation marginally. The U.S. Army restricts research on sensitive subjects, which includes women in the U.S. Army, to internal research processes, limiting approval of access to active duty female soldiers and the scale of participation. The combination of nominal and nonstandard distributed data provided by the Defense Manpower Data Center limits quantitative analysis to nonparametric tests (OPA, 2017).

**Summary**

Review of the literature provided evidence that women remain proportionally underrepresented at senior enlisted levels of the U.S. Army (OUSD/P&R, 2016b). This underrepresentation is due in part to patriarchal cultures (Yoon et al., 2015), gender role
biases (Eagly & Karau, 2002), stereotypes (Chang et al., 2015), and resistance to cultural change (Appelbaum et al., 2015) in newly opened occupations available to women in the U.S. Army (Arnhart et al., 2015; Carter, 2015).

This chapter contained a description of what elements constitute the research and how each component contributed to the findings and conclusions of each case study within the context of a transformative paradigm. The social justice element was included to address the need for increased egalitarian opportunities for women in the U.S. Army, and is well suited for the inclusion of the transformative paradigm (Mertens, 2018). The case study design and transformative paradigm drove the need for qualitative interaction with the oppressed population (Mertens, 2015; Yin, 2018). Restrictions on the population, geographic separation, and the needs of the potential stakeholders supported the need for quantitative analysis of available sources of data.

In conclusion, the study analysis included a comparison of between-group differences within each case study and a narrative describing the moderators used by women in the U.S. Army when faced with gender-based barriers. The results of this mixed methods multiple case study are presented in Chapter 4, and the study conclusions are described in Chapter 5.
CHAPTER 4: FINDINGS

The purpose of the mixed methods case study within the integration of women and functional areas of the U.S. Army was to understand and explain how moderators of gender-based barriers contribute to enlisted women’s increased recruitment, participation, retention, integration, and promotion. The study includes a quantitative comparison of the between-group difference of women’s experience of gender-based barriers and participation in the occupational functional areas of operations and force sustainment. Also contained in this study are the qualitatively compared themes and subthemes between the two cases of operations and force sustainment. Presentation of the findings follows the sequence of quantitative, qualitative, and integration after a description of the multiple sources of data collected to support the mixed methods case study.

Research Questions/Hypotheses

The three categories of questions supporting the methodology of mixed methods research are (a) quantitative, (b) qualitative, and (c) mixed methods.

Quantitative Research Questions

Formulation of the quantitative null hypotheses and subquestions will increase the depth of understanding of the overall research while maximizing the use of existing datasets. Hypothesis 10 was that no significant group difference exists between race or rank and enlisted women’s experience of gender-based barriers in the U.S. Army.

Subquestions related to Hypothesis 10 included Hypothesis 1a, Hypothesis 1b, and Hypothesis 1c:
1. Do minority and nonminority women in the U.S. Army experience gender-based barriers the same way? (H1a: $\mu_{\text{nonminority}} = \mu_{\text{minority}}$)

2. Do women of junior and senior enlisted ranks in the U.S. Army experience gender-based barriers the same way? (H1b: $\mu_{\text{grade E1-E4}} = \mu_{\text{grade E5-E9}}$)

3. Do minority and nonminority enlisted women in the U.S. Army differ in rates of retention over the span of a career? (H1c: $\mu_{\text{White non-Hispanic}} = \mu_{\text{Black}} = \mu_{\text{Hispanic}} = \mu_{\text{Asian}}$)

Hypothesis 2$_0$ was that no significant group difference exists between race, rank, or functional area and enlisted women’s participation in the U.S. Army.

Subquestions related to Hypothesis 2$_0$ included Hypothesis 2a and Hypothesis 2b:

1. Do significant group differences of participation exist between minority, and majority enlisted women at the rank of Sergeant Major serving in the occupational functional areas of operations and force sustainment? (H2a: $\mu_{\text{operations minority}} = \mu_{\text{operations nonminority}} = \mu_{\text{force sustainment minority}} = \mu_{\text{force sustainment nonminority}}$).

2. Do enlisted women in the U.S. Army serving in the occupational functional areas of operations and force sustainment differ in rates of retention over the span of their careers? (H2b: $\mu_{\text{operations minority}} = \mu_{\text{operations nonminority}} = \mu_{\text{force sustainment minority}} = \mu_{\text{force sustainment nonminority}}$).
Qualitative Research Questions

Research Question 1 was what moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major use to support their (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration? Question 2: What moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major find most effective?

Mixed methods Research Question

The mixed methods research question was how do enlisted women use moderators of cultural, gender-based barriers in the U.S. Army and what variations by race, rank, and occupation functional area (i.e., operations and force sustainment) exist?

Presentation of Findings

The findings from analysis of the multiple sources of data, including (a) the 2016 Workplace and Gender Relations Survey (WGRS) dataset, (b) the 2016 report on population representation (PopRep), (c) the 2017 DoD active-duty master file, (d) ERBs, and (e) interview transcripts, are presented in this section. The analysis in this study is presented in the sequence of data availability and analysis: quantitative results, qualitative findings, and integrated findings.

The quantitative data analysis revealed race and rank between-group differences of women in the U.S. Army. Race is identified within the study as a more frequent between-group difference over rank. In sequence, qualitative data provided rich descriptions of the lived experiences of senior enlisted women in the Army. Transcript
data analyzed in this study highlighted three themes related to gender-based obstacles encountered and moderators used by interview participants. These themes, discussed in more detail in the following sections, are career planning, adapting communication for the U.S. Army culture, and obstacles of integration. The three themes aligned with the qualitative research areas of interest: (a) recruitment, (b) promotion, (c) reenlistment, (d) participation, and (e) integration. Linking the quantitative and qualitative data added to pattern matching and cross-case analysis within the final presentation of integrated findings. The sequence started with the analysis of quantitative data analysis as the required process of gaining permission to interview participants continued.

**Quantitative Analysis**

Tests were conducted to identify if between-group differences existed (a) between race or rank and enlisted women’s experiences of gender-based barriers and (b) race, rank, and functional area and enlisted women’s participation in the U.S. Army. Kruskal-Willis and posthoc Mann-Whitney $U$ tests measured nonparametric ordinal data, and chi-square tests measured all other categorical variables.

Kruskal-Willis tests were conducted between the four categorical groups of (a) minority women, E1-E4, (b) minority women, E5-E9, (c) nonminority women, E1-E4, and (d) nonminority women, E5-E9. The Kruskal-Willis tests were employed to determine statistically significant differences in collected survey responses within the WGRS area of hostile work environment between four groups of ordinal dependent variables, measured independently from each other. When analysis of the Kruskal-Wallis
test data indicated a statistically significant difference between groups, subsequent posthoc Mann-Whitney $U$ tests were performed to isolate and identify statistically significant pairwise differences. All tests were conducted using SPSS Version 25.0 and at a statistical significance of $p \leq 0.05$.

Chi-square tests of independence were used to measure between-group differences and determined statistically significant differences in collected survey responses within the WGRS areas of (a) gender discrimination, (b) sexually hostile work environment, and (c) sex-based military equal opportunity violations. The four categorical groups remained consistent from the Kruskal-Willis tests. When analysis of a chi-square test of independence indicated a statistically significant association, the chi-square test for association was used to isolate race and rank, independently, for the evaluation of distribution between groups equivalent to chance or the independence of groups. SPSS Version 25.0 software was used for all chi-square tests, at a statistical significance of $p \leq 0.05$.

Finally, CNA population representation of women’s progression data (OUSD/P&R, 2017b) were analyzed using the chi-square tests of independence to measure for statistically significant differences in the categorical variables of race and rank. Additionally, chi-square tests of independence were used to assess the significance of association between the categorical variables of race and occupational functional areas found in the Defense Manpower Data Center datasets of fiscal year 2017 Sergeants Major
functional areas of service and fiscal year 2000 enlisted accessions (new recruits) functional areas of service.

**Quantitative Results**

Before testing any hypothesis, a SPSS assessment of each dataset for the assumption of normal distribution was conducted with an assessment result that all datasets lacked a parametric distribution. The nonparametric distribution of each test, paired with a visual inspection of boxplots confirmed similar distributions within each category of data, further supporting the use of the selected tests. The ordinal nonparametric metadata generated from WGRS responses (OPA, 2017) in the categories of hostile work environment provided the dependent variable for analysis and informed the use of the Kruskal-Wallis H test and posthoc Mann-Whitney $U$ tests. Nominal variables collected through independent observations, paired with the nonparametric data distributions, supported the assumptions necessary to conduct chi-square tests of all remaining categories evaluated for between-group differences. Response rates for all variables exceeded 95% in all areas.

All missing data were assessed as random in the distribution and excluded from the analysis. Preliminary analysis of the dependent variable of hostile work environment initially indicated a missing response rate over 15%. The WGRS was found to have collected responses on a short paper form and a long electronic form. The long form included all the items, and the short form explained the difference in overall participation between dependent variables (OPA, 2017). The WGRS metadata used for analysis
included a maximum participant total \((n = 8,144)\) for three of the five areas of analysis. The reduced maximum participation total during the analysis of hostile work environment \((n = 6,401)\) and interest to reenlist \((n = 6,716)\) represented the difference in the use of the short- and long-form surveys. Missing data assessed to be random through SPSS analysis included a maximum of 3.1% missing data (constructed hostile work environment variable) and were excluded from the analysis. Table 4.1 is a summary of findings ordered by the introduction of data source within this section.

**Hypothesis H10.**

Hypothesis 10 was that no significant group difference exists between race or rank, and enlisted women’s experience of gender-based barriers in the U.S. Army. Hypothesis H10 was separated into three subquestions H1a, H1b, and H1c. Subquestion H1a focused on gender, H2a focused on rank, and H1c set the foundation for the question of retention over the course of a career. Subquestions H1a and H1b were supported by the 2016 WGRS. CNA 2016 PopRep data (OUSD/P&R, 2017b) supported subquestion H1c and crosstabulation analysis of women in the Army by rank and race/ethnicity.

**Hypothesis H10, Subquestion H1a**

Subquestion Hypothesis 1a was do minority and nonminority women in the U.S. Army experience gender-based barriers the same way? \((H1a: \mu \text{ White non-Hispanic} = \mu \text{ Minority})\). The WGRS-reported responses related to sexual harassment, sexual assault, gender discrimination, and gender relations in the DoD (OPA, 2017) provided the source
data for analysis in the areas of hostile work environment, gender discrimination, sexually hostile work environment, and sexual military equal opportunity.

The distribution within each dependent variable is nonstandard but similar among categories. The dichotomous variable reporting of race as nonminority and minority defines nonminority as a White non-Hispanic. Minority is inclusive of all individual

Table 4.1

Summary of Quantitative Results

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Between-Group Difference</th>
<th>Association Significance</th>
<th>Race/Ethnicity, Association Significance</th>
<th>Rank, Association Significance</th>
<th>Functional Area Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostile Work Environment</td>
<td>Null Hypothesis</td>
<td>Reject Null, 0.001</td>
<td>Difference, &lt; 0.0005</td>
<td>No difference 0.108</td>
<td>NA</td>
</tr>
<tr>
<td>Gender Discrimination</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference, &lt; 0.0005</td>
<td>Difference, &lt; 0.0005</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Sexually Hostile Work Environment</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference, &lt; 0.0005</td>
<td>Difference, &lt; 0.0005</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Sex-Based Military Equal Opportunity</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference, &lt; 0.0005</td>
<td>No difference 0.385</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Population Representation</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference</td>
<td>Difference</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Sergeant Major Area of Service</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference</td>
<td>NA</td>
<td>Difference</td>
<td></td>
</tr>
<tr>
<td>2000 vs 2017 Area of Service</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference</td>
<td>NA</td>
<td>Difference</td>
<td></td>
</tr>
<tr>
<td>Interview transcripts</td>
<td>NA</td>
<td>Difference</td>
<td>Difference</td>
<td>Difference</td>
<td></td>
</tr>
<tr>
<td>Enlisted Records</td>
<td>NA</td>
<td>Difference</td>
<td>NA</td>
<td>Difference</td>
<td></td>
</tr>
<tr>
<td>Interest to Reenlist</td>
<td>Reject Null, &lt; 0.0005</td>
<td>Difference, 0.044</td>
<td>Difference, &lt; 0.0005</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*Note. NA = Not Available*
races, ethnicities, and combinations other than White non-Hispanic unless classified as unknown. Gender-based barriers as previously described are identified within the WGRS report as hostile work environment, gender discrimination, sexually hostile work environment, and sexual military equal opportunity.

**Hostile Work Environment**

Evaluating workplace factors within the WGRS, a scale was constructed from four questions relating to an experience over the past 12 months of coworker or supervisor behaviors (OPA, 2017). Behaviors included interfering with work performance, harsh criticism, and claiming credit for ideas. Using a 5-point Likert scale ranging from *never* to *very often*, response coding of *sometimes*, *often*, and *very often* indicated an unhealthy work environment. The four survey questions provided in the dataset indicated an unhealthy work environment range within the four questions of 18.2% (work performance interference) to 28.6% (lack of needed information or assistance). Any participant with missing data from any of the four survey questions used to construct the scale was presented in the constructed scale as missing and not included in the study. Missing data from the four supporting survey questions were random with a cumulative missing data rate result of 3.1%. The measured dependent variable of hostile work environment is at the ordinal level of measure and meets the assumption criteria of the Kruskal-Wallis H test. The first Kruskal-Wallis H test was performed to examine subhypotheses H1a and H1b concurrently for any between-group differences of race, rank, and the experience of a hostile workplace environment.
Kruskal-Wallis H test. A Kruskal-Wallis H test was run in SPSS to determine if there were differences in reported hostile workplace environment between four groups of U.S. Army women: minority, E1-E4 \((n = 1,747)\); minority, E5-E9 \((n = 2,564)\); nonminority, E1-E4 \((n = 928)\); and nonminority, E5-E9 \((n = 1,162)\). Distributions of race and rank scores were similar for all groups, as assessed by visual inspection of a boxplot. Median race/rank scores were statistically significantly different between groups, \(H(3) = 16.639, p = 0.001\). Subsequently, pairwise comparisons were performed using Dunn’s (1964) procedure with a Bonferroni correction for multiple comparisons.

The Kruskal-Wallis H test results of hostile workplace environment median race/rank scores indicated a statistically significant difference between groups rejecting the null hypothesis that nonminority women and minority women experience gender-based barriers the same way. Posthoc analysis revealed statistically significant differences in workplace hostility scores between the minority, E5-E9 \((Mdn = 1.2222)\) and nonminority, E5-E9 \((Mdn = 1.3333; p = 0.037)\) and minority, E5-E9 and nonminority, E1-E4 \((Mdn = 1.3333; p = 0.002)\) groups, but not between the minority E1-E4 group \((Mdn = 1.3333)\) or any other group combination. Posthoc analysis identified minority women in the pay grade of E5-E9 reported a lower rate of reported hostile workplace environment. A Mann-Whitney \(U\) test was necessary to further test subhypothesis H1a that no difference existed between nonminority and minority women.

Mann-Whitney’s \(U\), hostile work environment by race. A Mann-Whitney \(U\) test was conducted to determine if there were significant differences in reported workplace
hostility between nonminority \((n = 2,090)\) and minority women \((n = 4,311)\). Distributions of the reported hostile workplace environment scores for nonminority women and minority women were similar, as assessed by visual inspection. The reported hostile workplace environment score was statistically significantly different between nonminority women \((Mdn = 1.3333)\) and minority women \((Mdn = 1.2222)\), \(U = 4,248,326, z = -3.793, p < 0.0005\). The Mann-Whitney \(U\) test between the variable of race and reported hostile workplace environment, indicated race as a between-group difference, rejecting the null hypotheses of subhypothesis H1a and the H10 hypothesis.

**Gender Discrimination**

The WGRS data included nominal responses of *experienced* or *not experienced* over the preceding 12 months when asked to recount harmful comments or behaviors based on gender (OPA, 2017). Constructed from four yes-or-no questions, both long- and short-form surveys included the question and a nonresponse rate of 0.2%. Missing data were excluded from the analysis. Survey responses \((n = 8,127)\) indicated a 15.5\% \((n = 1,259)\) rate of gender discrimination experienced by enlisted women in the U.S. Army responding to the WGRS. The first chi-square test of independence was performed to examine subhypotheses H1a and H1b simultaneously and test for any between-group differences of race and rank in gender discrimination experienced by women.

**Chi-square test of independence.** In SPSS, a chi-square test of independence was conducted between women and the experience of gender discrimination. All expected cell frequencies were greater than 5. There was a statistically significant
association between women’s demographics and experiencing gender discrimination in the U.S. Army, $\chi^2(3) = 43.468, p < 0.0005$. The association was weak (Cohen, 1988): Cramer’s $V = 0.073$. The chi-square test result of between-group differences required additional tests to isolate the statistically significant difference to race, rank, or both.

Table 4.2 includes the four independent variables of race and rank and the dependent variable of gender discrimination. Results identified nonminority women at the senior level experienced a higher rate of gender discrimination (19.6%) than expected (15.5%), and minority women at the junior rank experienced a lower rate of gender discrimination (11.9%) than the expected (15.5%). The second chi-square test of subhypothesis H1a tested for nonminority and minority between-group differences.

**Chi-square test for race association.** To isolate race as a between-group difference, a chi-square test for association was conducted between nonminority women ($n = 2,600$), and minority women ($n = 5,527$) and the experience of gender discrimination

Table 4.2

<table>
<thead>
<tr>
<th>Race and Rank</th>
<th>Gender Discrimination Prevalence</th>
<th>Did Not Experience</th>
<th>Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority E5-E9</td>
<td>2,757, (-0.3)</td>
<td>511, (0.3)</td>
<td></td>
</tr>
<tr>
<td>Nonminority E5-E9</td>
<td>1,139, (-4.7)</td>
<td>278, (4.7)</td>
<td></td>
</tr>
<tr>
<td>Minority E1-E4</td>
<td>1,991, (5.6)</td>
<td>268, (-5.6)</td>
<td></td>
</tr>
<tr>
<td>Nonminority E1-E4</td>
<td>981, (-1.6)</td>
<td>202, (1.6)</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Adjusted residuals appear in parentheses below observed frequencies.*
(n = 1,259). All expected cell frequencies were greater than 5. There was a statistically significant association between the race of women and experiencing gender discrimination in the U.S. Army, \( \chi^2(1) = 25.759, p < 0.0005 \). There was a weak (Cohen, 1988) association between race and experiencing gender discrimination, Cramer’s V = 0.056, \( p < 0.0005 \). Therefore, the H1a null hypothesis was rejected that no gender discrimination difference existed between nonminority and minority women.

**Sexually Hostile Work Environment**

Sexually hostile work environment responses included nominal responses of *experienced* or *not experienced* over the preceding 12 months. A series of 20 conditional questions required participants to identify unwelcome sexual conduct or comments contributing to hostile work conditions. A second condition required validation that the behavior continued after the offender knew to stop or the behavior was so severe that most service members would identify the behavior as offensive (OPA, 2017). Single qualifying responses within the constructed category of experienced produced the nominal categorization of *experienced*. Constructed from 20 yes-or-no questions, both long- and short-form surveys included the question and a nonresponse rate of 0.2%. Missing data were excluded from the analysis. Survey responses (\( n = 8,130 \)) indicated a 21.9\% (\( n = 1,777 \)) rate of sexually hostile work environment experienced by enlisted women in the U.S. Army responding to the WGRS (OPA, 2017). The chi-square test of independence tested subhypotheses H1a and H1b simultaneously for any between-group differences of race, rank, and sexually hostile work environment experienced by women.
**Chi-square test of independence.** A chi-square test of independence was conducted between women and the experience of a sexually hostile work environment. All expected cell frequencies were greater than 5. There was a statistically significant association between respondents’ demographics and experiences of sexually hostile work environments in the U.S. Army, $\chi^2(3) = 65.374$, $p < 0.0005$. The association was weak (Cohen, 1988), Cramer’s $V = .090$. The result of between-group differences required additional tests to isolate differences to race, rank, or both.

Table 4.3 includes the four independent variables of race and rank and the dependent variable of sexually hostile work environment.

Nonminority women experienced sexual hostility in the workplace at a higher rate than minority women, while nonminority women at the junior rank experienced a sexually hostile work environment at a higher rate (30.3%) than expected (21.9%). A second chi-square test was conducted to test for the association of race.

Table 4.3

*Crosstabulation Sexually Hostile Work Environment*

<table>
<thead>
<tr>
<th>Race and Rank</th>
<th>Sexually Hostile Work Environment</th>
<th>Did Not Experience</th>
<th>Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority E5-E9</td>
<td>626</td>
<td>2,645</td>
<td>(4.9)</td>
</tr>
<tr>
<td>Nonminority E5-E9</td>
<td>318</td>
<td>1099</td>
<td>(-0.6)</td>
</tr>
<tr>
<td>Minority E1-E4</td>
<td>474</td>
<td>1,785</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Nonminority E1-E4</td>
<td>359</td>
<td>824</td>
<td>(-7.6)</td>
</tr>
</tbody>
</table>

*Note.* Adjusted residuals appear in parentheses below observed frequencies.
Chi-square test for race association. To isolate race as a between-group difference, a chi-square test for association was conducted between nonminority women \( (n = 677) \) and minority women \( (n = 1,100) \) and the experience of a sexually hostile work environment \( (n = 1,777) \). All expected cell frequencies were greater than 5. There was a statistically significant association between the race of women and experiencing a sexually hostile work environment in the U.S. Army, \( \chi^2(1) = 39.124, p < 0.0005 \). There was a weak (Cohen, 1988) association between race and experiencing a sexually hostile work environment, Cramer’s \( V = 0.069, p < 0.0005 \). Therefore, the H1a null hypothesis was rejected that no difference existed between nonminority and minority women.

**Sex-Based Military Equal Opportunity Violations**

Sex-based military equal opportunity violations measured the prevalence of responses indicating the experience of either sexual harassment or gender discriminatory behaviors in their military workplace. A conditional assessment validated the behaviors continued after the offender knew to stop or the behavior was so severe that most service members would identify the behavior as offensive. A single qualifying response within the constructed category of experienced produced a nominal categorization for the participant of *experienced* (OPA, 2017). Constructed from 39 categorical yes-or-no questions, both long- and short-form surveys included all questions and a nonresponse rate of 0.2%. Missing data were excluded from the analysis. Survey responses \( (n = 8,130) \) indicated a 27.7\% \( (n = 2,248) \) rate of sex-based military equal opportunity violations experienced by enlisted women in the U.S. Army responding to the WGRS (OPA, 2017).
The chi-square test was performed to test subhypotheses H1a and H1b simultaneously for any between-group differences of race, rank, and sex-based military equal opportunity violations experienced by women.

**Chi-square test of independence.** A chi-square test of independence was conducted between women and the experience of sex-based violations of military equal opportunity. All expected cell frequencies were greater than 5. There was a statistically significant association between a woman’s demographics and experiencing sex-based military equal opportunity violations in the U.S. Army, $\chi^2(3) = 6.991, p < 0.0005$. The association was weak (Cohen, 1988), Cramer’s $V = 0.076$. The result of between-group differences required additional tests to isolate the differences to race, rank, or both.

The four independent variables of race and rank and the dependent variable of sex-based military equal opportunity violations, as displayed in Table 4.4, compare the actual and expected rate of occurrence. Nonminority women experienced violations of Table 4.4

### Crosstabulation of Military Equal Opportunity

<table>
<thead>
<tr>
<th>Race and Rank</th>
<th>Did Not Experience</th>
<th>Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority E5-E9</td>
<td>2,421 (2.8)</td>
<td>850 (-2.8)</td>
</tr>
<tr>
<td>Nonminority E5-E9</td>
<td>988 (-2.4)</td>
<td>429 (2.4)</td>
</tr>
<tr>
<td>Minority E1-E4</td>
<td>1,699 (3.6)</td>
<td>560 (-3.6)</td>
</tr>
<tr>
<td>Nonminority E1-E4</td>
<td>774 (-5.8)</td>
<td>409 (5.8)</td>
</tr>
</tbody>
</table>

*Note. Adjusted residuals appear in observed frequencies in parentheses below.*
sex-based military equal opportunity violations at a higher rate than minority women. Nonminority women at the junior rank experienced violations of military equal opportunity at a higher rate (34.6%) than expected (27.6%). The existence of independence between groups required a second chi-square test to examine subhypothesis H1a and test for racial between-group difference.

**Chi-square test for race association.** To isolate race as a between-group difference, a chi-square test for association was conducted between nonminority women ($n = 2,600$), and minority women ($n = 5,530$) and the 27.7% ($n = 2,248$) of women reporting a violation of sex-based military equal opportunity violation. All expected cell frequencies were greater than 5. There was a statistically significant association between the race of women and experiencing sex-based military equal opportunity violations in the U.S. Army, $\chi^2(1) = 40.082, p < 0.0005$. There was a weak (Cohen, 1988) association between race and experiencing sex-based MEO violations, Cramer’s $V = .070, p < 0.0005$. Therefore, the H1a null hypothesis was rejected that no difference existed between nonminority and minority women.

**Summary**

The Kruskal-Willis H test and the chi-square test of independence were used to measure the significance of association between four independent variables of race and rank and the four dependent variables to determine the existence of between-group differences. The simultaneous use of all four independent variables provided an opportunity to accept the null hypotheses of H1a and H1b and eliminate the need for any
further testing of subquestions H1a and H1b. The initial Kruskal-Willis and chi-square test results of significance of association between each dependent variable indicated statistically significant differences between the groups. The results provided evidence that the H10 null hypothesis could be rejected. Analysis of the test results did not indicate a specific difference to the area of race, rank, or both and required the conduct of additional testing of subquestions H1a and H1b.

The Kruskal-Willis H test, the chi-square test of independence and corresponding post Mann-Whitney U test and chi-Square test for association analysis all indicated statistically significant differences between the groups of nonminority and minority women. The interpretation of the SPSS analysis of the data supports the rejection of H1a null hypothesis in the areas of (a) hostile work environment, (b) gender discrimination, (c) sexually hostile work environment, and (d) sex-based military equal opportunity. Additional Mann-Whitney U and chi-square tests of association were necessary to isolate and test rank as a between-group difference and complete testing of the subquestion H1b hypothesis.

**Hypothesis H10, Subquestion H1b**

Subquestion Hypothesis 1b was do women of junior and senior enlisted ranks in the U.S. Army experience gender-based barriers the same way? (H1b: \( \mu \) women grade E1-E4 = \( \mu \) women grade E5-E9). The WGRS data in the areas of hostile workplace environment, gender discrimination, sexually hostile work environment, and sex-based military equal opportunity (OPA, 2017) used in the analysis contributed to the between-
group analysis of women with different ranks. Previously described Kruskal-Wallis H and chi-square tests of independence of WGRS data indicated a statistically significant difference between women grouped by race and rank. To isolate rank and determine any between-group differences, in addition to previous analyses, a Mann-Whitney \( U \) test and chi-square tests for association was necessary.

**Hostile Work Environment**

The previously described Kruskal-Wallis H test analysis and rejection of the H1a null hypothesis, included median race/rank scores and statistically significant differences between groups. Two Mann-Whitney \( U \) tests followed the Kruskal-Wallis H test to compare the nonparametric responses of four independent groups for statistically significant differences. Following the pairing of independent groups within each category subgroup of race and rank, the Mann-Whitney \( U \) test was performed to test race as part of subquestion H1a. A second Mann-Whitney \( U \) test was conducted to test rank and analysis of the data indicated no statistically significant group difference existed.

**Mann-Whitney \( U \) test for hostile work environment by rank.** A Mann-Whitney \( U \) test was run to determine if there were significant differences in reported hostile workplace environment between women in the pay grade of E1-E4 (\( n = 2,675 \)) and in E5-E9 (\( n = 3,732 \)). Distributions of the reported hostile workplace environment scores for women grade E1-E4 and women grade E5-E9 were similar, as assessed by visual inspection. The reported workplace hostility score was not statistically significantly different between women grade E1-E4 (\( Mdn = 1.3333 \)) and women grade
E5-E9 \((Mdn = 1.3333), U = 4,876,932, z = -1.609, p = 0.108\). Therefore, the H1b null hypothesis was accepted that no significance existed between women and reported hostile workplace environment when grouped by rank.

**Gender Discrimination**

The subquestion H1a chi-square test of independence was performed to compare the nonparametric responses of four independent groups with a rejection of the H1a null hypothesis. Following the pairing of independent groups within each category subgroup of race and rank, two chi-square tests for association followed. WGRS responses \((n = 8,141)\) indicated a 5.8% \((n = 470)\) rate of gender discrimination experienced by enlisted women E1-E4 \((n = 3,444)\) and an additional 9.7% \((n = 791)\) by women E5-E9 \((n = 4,697)\). Missing data \((n = 3)\) were excluded from the analysis. The second chi-square test for association of subhypothesis H1b was performed to test for any significance of association group differences of rank.

**Chi-square test for rank association.** To isolate rank as a between-group difference, a chi-square test for association was conducted between E1-E4 women and E5-E9 women and the experience of gender discrimination. All expected cell frequencies were greater than 5. There was a statistically significant association between the rank of women and experiencing gender discrimination in the U.S. Army, \(\chi^2(1) = 15.481, p < 0.0005\). There was a weak association(Cohen, 1988) between rank and experiencing gender discrimination, Cramer’s \(V = 0.044, p < 0.0005\). Therefore, the H1b null hypothesis was rejected that no difference existed between the ranks of women.
Sexually Hostile Work Environment

Tests were used to evaluate subquestion H1a sexually hostile work environment and compare the nonparametric responses of women by race and rank, the result was a rejection of the H10 null hypothesis. After pairing independent subgroups within each category to isolate rank, a chi-square test for association followed. WGRS responses \((n = 8,144)\) indicated a 21.9% \((n = 1,781)\) rate of sexually hostile work environment encountered by 24.2% \((n = 835)\) of the enlisted women E1-E4 and by 20.1% \((n = 946)\) of the women E5-E9.

**Chi-square test for rank association.** To isolate rank as a primary between-group difference, a chi-square test for association was conducted between women E1-E4 \((n = 3,444)\) and women E5-E9 \((n = 4,700)\) reporting an encounter over the previous 12 months of sexually hostile work environment \((n = 1,781)\). All expected cell frequencies were greater than 5. There was a statistically significant association between the rank of women and experiencing a sexually hostile work environment in the U.S. Army, \(\chi^2(1) = 19.721, p < 0.0005\). There was a weak association (Cohen, 1988) between race and experiencing a sexually hostile work environment, Cramer’s V = 0.049, \(p< 0.0005\). Chi-square SHWE analysis of the data resulted in the rejection of H1b null hypothesis that no difference existed between the ranks of women.

Sex-Based Military Equal Opportunity Violations

The pattern of the chi-square test of independence execution and subsequent tests for association continued after the statistically significant result of between-group
differences of women and the experience of sex-based military equal opportunity violations. WGRS responses \( n = 8,144 \) indicated a 27.7\% \( (n = 2,254) \) rate of sex-based military equal opportunity violations encountered by 28.2\% \( (n = 971) \) of the enlisted women in the pay grade of E1-E4 and by 27.3\% \( (n = 1,283) \) of the women in the grade of E5-E9. To measure the dependent variable of rank and the experience of sex-based military equal opportunity violations within the final subquestion H1b, a chi-square test for association was used.

**Chi-square test for rank association.** To isolate rank as a between-group difference, a chi-square test for association was conducted \( n = 8,144 \) between enlisted women E1-E4 \( (n = 3,444) \) and women grade E5-E9 \( (n = 4,700) \) reporting a sex-based military equal opportunity violation encounter over the previous 12 months. All expected cell frequencies were greater than 5. There was no statistically significant association between the rank of women and experiencing sex-based military equal opportunity violations in the U.S. Army, \( \chi^2(1) = 0.797, p = 0.385 \). Chi-square sex-based military equal opportunity analysis of the data indicated an acceptance of the H1b null hypothesis that no difference existed between the ranks of women.
Hypothesis H10, Subquestion H1c

Subquestion Hypothesis 1c was do minority and nonminority enlisted women in the U.S. Army differ in rates of retention over the span of a career? (H1c: $\mu$ White non-Hispanic = $\mu$ Black = $\mu$ Hispanic = $\mu$ Asian.) Each year the CNA receives data from the DMDC and produces a report with tables that describe the population of the U.S. military (OUSD/P&R, 2017b). The 2016 CNA PopRep included the participation of women in the U.S. Army by pay grade and race/ethnicity as a part of Table B-37 (OUSD/P&R, 2017a). Figure 4.1 displays the table segment used to populate SPSS analysis and findings. Each pay grade represents segments of an Army career. Army regulations guided the minimum and maximum time in service requirement for each forced up or out sequential pay grade.

![Figure 4.1. FY16 Active Army enlisted women progression by race and grade. Adapted from “Table B-37. Active Component Enlisted Members, FY16: by Pay Grade, Service, Gender, and Race/Ethnicity,” by Office of the Under Secretary of Defense, Personnel and Readiness, 2017, Population Representation in the Military Services: Fiscal Year 2016.](image-url)
Population Representation, 2016

Enlisted women on active duty in the U.S. Army during fiscal year 2016 \( (n = 53,232) \) were of different races and ethnicities. Participation among women of differing pay grades indicated a highpoint of participation at pay grade E4 and a steady decline through the grade of E9. As a representative portion beyond E4, White and Black women were divergent, as depicted by Figure 4.1 (OUSD/P&R, 2017a). To determine if the grade distribution of women is by chance or the presence of a race/ethnicity association to pay grade, the chi-square test of independence at each pay grade was used to measure significant group differences between White \( (n = 14,975) \), Black \( (n = 22,005) \), Hispanic \( (n = 9,113) \), Asian \( (n = 2,289) \), and those women not identified by race or ethnicity \( (\text{unknown}; n = 2,732) \).

To maintain consistency of the synonymous categories of nonminority and White non-Hispanic within the study, the ethnically Hispanic participants were subtracted from the White participants provided in Figure 4.1, across all pay grades. The frequency rate in the grade of E9 within the race/ethnicity group of American Indian/Alaska Native and Native Hawaiian and Other Pacific Islander violated a chi-square test assumption that all frequencies are greater than 5 and excluded from the analysis.

Chi-square test of independence. A chi-square test of independence of women identified by race/ethnicity and enlisted pay grade serving on active duty was conducted. All expected cell frequencies were greater than 5. There was a statistically significant association between race/ethnicity and enlisted pay grade in the U.S. Army during 2016,
\[ \chi^2(32) = 4,128.276, \ p < .0005. \] The association was weak (Cohen, 1988), Cramer’s \( V = 0.141 \). The \( H1c \) null hypothesis was rejected that no difference existed between the ranks of women.

Table 4.5 is a display of the crosstabulation analysis of race/ethnicity participation of women and each possible enlisted pay grade of E1 through E9. Crosstabulation

### Table 4.5

*Crosstabulation of Women’s Enlisted Population*

<table>
<thead>
<tr>
<th>Grade (Rank)</th>
<th>Race / Ethnicity</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>Black</td>
<td>Asian</td>
<td>Hispanic</td>
<td>Unknown</td>
</tr>
<tr>
<td>E1</td>
<td>1199</td>
<td>1172</td>
<td>97</td>
<td>689</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>(11.4)</td>
<td>(-6.5)</td>
<td>(-6.1)</td>
<td>(6.3)</td>
<td>(-13.2)</td>
</tr>
<tr>
<td>E2</td>
<td>1,424</td>
<td>1667</td>
<td>133</td>
<td>814</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(9.0)</td>
<td>(-1.9)</td>
<td>(-6.4)</td>
<td>(4.3)</td>
<td>(-14.9)</td>
</tr>
<tr>
<td>E3</td>
<td>2422</td>
<td>2977</td>
<td>422</td>
<td>1502</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>(7.6)</td>
<td>(-4.5)</td>
<td>(0.9)</td>
<td>(6.5)</td>
<td>(-17.5)</td>
</tr>
<tr>
<td>E4</td>
<td>5655</td>
<td>6874</td>
<td>1179</td>
<td>2738</td>
<td>444</td>
</tr>
<tr>
<td></td>
<td>(15.7)</td>
<td>(-6.1)</td>
<td>(10.5)</td>
<td>(-5.9)</td>
<td>(-18.8)</td>
</tr>
<tr>
<td>E5</td>
<td>2445</td>
<td>3778</td>
<td>540</td>
<td>1580</td>
<td>607</td>
</tr>
<tr>
<td></td>
<td>(-3.8)</td>
<td>(-0.8)</td>
<td>(2.5)</td>
<td>(0.0)</td>
<td>(6.9)</td>
</tr>
<tr>
<td>E6</td>
<td>1142</td>
<td>2624</td>
<td>269</td>
<td>938</td>
<td>688</td>
</tr>
<tr>
<td></td>
<td>(-15.5)</td>
<td>(6.0)</td>
<td>(-2.5)</td>
<td>(-2.2)</td>
<td>(24.5)</td>
</tr>
<tr>
<td>E7</td>
<td>480</td>
<td>2118</td>
<td>149</td>
<td>662</td>
<td>665</td>
</tr>
<tr>
<td></td>
<td>(-25.2)</td>
<td>(12.6)</td>
<td>(-5.3)</td>
<td>(-2.4)</td>
<td>(32.8)</td>
</tr>
<tr>
<td>E8</td>
<td>150</td>
<td>637</td>
<td>33</td>
<td>170</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>(-12.6)</td>
<td>(7.7)</td>
<td>(-4.1)</td>
<td>(-3.1)</td>
<td>(17.8)</td>
</tr>
<tr>
<td>E9</td>
<td>58</td>
<td>158</td>
<td>7</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>(-2.9)</td>
<td>(4.9)</td>
<td>(-2.2)</td>
<td>(-4.5)</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

*Note.* Adjusted residuals appear in parentheses below observed frequencies (n = 51,114).
analysis includes the result that White women in the U.S. Army participated at a higher than the expected rate at the junior E1-E4 grades and at a lower rate than expected at the senior E5-E9 grades. The H1c null hypothesis was rejected that women are equal in the frequency of participation in all pay grades in the U.S. Army.

The 2016 CNA PopRep report (OUSD/P&R, 2016b), remaining generally constant over time and the representation of each pay grade as a segment of an Army member’s participation over a career, was examined for between-group difference. The Chi-square test of independence included a statistically significant association between race/ethnicity and enlisted pay grade. The finding of between-group differences indicated a rejection of the H1c null hypothesis of an equal frequency of women in all pay grades in the U.S. Army regardless of race/ethnicity.

Summary

The interpretation of the SPSS analysis of the Kruskal-Willis, Mann-Whitney $U$, and chi-square test data indicated statistically significant between-group differences in every subquestion. Each subquestion null hypothesis was rejected, and the overall null hypothesis that no significant group difference exists between race or rank and enlisted women’s experience of gender-based barriers in the U.S. Army is also rejected. The statistically significant findings of between-group difference with the Kruskal-Willis H test and chi-square test of independence alone indicated rejection of the null hypotheses of H10, Subquestion H1a, H1b, and H1c. Further analysis using the Mann-Whitney $U$ test
and chi-square test for association also indicated statistically significant differences between groups within the categories of race and rank.

The interpretation of the Mann-Whitney $U$ test data of race and rank indicated a statistically significant difference in reported hostile workplace environment when measuring race and not rank. Nonminority women reported a statistically significant higher rate of hostile workplace environment while women of junior and senior enlisted ranks reported no statistically significant difference. Race, and not rank, was identified as a factor of significance in the measure of hostile work environment experienced by women in the U.S. Army.

Chi-square test for association analysis of gender discrimination showed statistically significant differences between the race and rank of women who experienced gender discrimination over the previous 12 months. Race had a stronger association (Cramer’s $V = 0.073$) than rank (Cramer’s $V = 0.044$) with the increased reporting of gender discrimination of nonminority women over minority women, and a higher than expected reported rate of gender discrimination reported by nonminority women at the senior level.

Like the gender discrimination analysis, the sexually hostile work environment analysis showed a statistically significant difference in the association between the race and rank of women who experienced a sexually hostile work environment. Race, with a similar degree of difference as the gender discrimination findings to rank, was stronger in association with the increased reporting of sexual hostility in the workplace. The
association of rank with sexually hostile work environment was indicated by the higher rate of occurrence than expected at the junior ranks. Sexually hostile work environment analysis indicated the rejection of the H1b null hypothesis.

Like the hostile workplace environment analysis, a chi-square test for association analysis of sex-based military equal opportunity violations showed a statistically significant association between race and not rank. Conversely, chi-square test for association analysis of gender discrimination and sexually hostile work environment indicated a statistically significant association between women grouped by race and rank. Gender discrimination and sexually hostile work environment analysis showed evidence of an association of race and rank adding to the rejection of the null of H1b and H10.

**Hypothesis H2o**

Hypothesis 20 was that no significant group difference exists between race, rank, or functional area and enlisted women’s participation in the U.S. Army. Hypothesis 20 emphasized the independent variable of occupational functional area, which was composed of two subcategories. The subcategories aligned with the study cases and included operations and force sustainment. The hypothesis was separated into two subquestions: H2a and H2b. Subquestion H2a was focused on the operations and force sustainment functional areas in which Sergeants Major serve, and H2b was tested to compare the functional areas of new soldiers and Sergeants Major. The datasets provided by the DMDC included fiscal year 2000 enlisted accession and 2017 Sergeant Major data by race, but not ethnicity. Both datasets included Hispanic women within the race
classification of White. DMDC fiscal year 2000 enlisted accession and 2017 Sergeant Major White race results were identified within the tables of the race column as *majority*.

**Hypothesis H20, Subquestion H2a**

Subquestion Hypothesis 2a was do significant group differences of participation exist between minority and majority enlisted women at the rank of Sergeant Major serving in the occupational functional areas of operations and force sustainment? (H2a: \( \mu \) operations minority = \( \mu \) operations majority = \( \mu \) force sustainment minority = \( \mu \) force sustainment majority).

**Sergeant Major Functional Areas of Service**

DoD DMDC provided data extracted from the active-duty master file. The data file included gender, race, years of service, and MOS frequencies as of September 30, 2017 (DMDC, 2017). Each MOS was coded as operational or force sustainment functional areas. To determine if the functional area distribution of women \( (n = 280) \) was by chance or the presence of a race association to functional areas, the chi-square test of independence measured between-group differences. The Sergeants Major serving in nominative positions \( (n = 12) \) held a MOS (00Z) not considered a functional area and reduced the overall population \( (n = 268) \) for analysis. A visual disproportional frequency count of minority women serving within the force sustainment functional area is indicated in Figure 4.2.
A chi-square test of independence was conducted between women and their functional areas of service. All expected cell frequencies were greater than 5. There was a statistically significant association between the race of women and their functional areas of service in the U.S. Army, $\chi^2(2) = 26.291$, $p < 0.0005$. The association was moderate (Cohen, 1988), Cramer’s $V = 0.313$. Therefore, the H2a null hypothesis was rejected that no difference existed between the ranks of women.

Table 4.6 aligns with the visual assumption presented in Figure 4.2 that minority women participate at a higher rate (81.1%) than expected (70.9%) in the force sustainment functional area, and majority women participate at a higher rate (52.1%) than expected (29.1%) in the operations functional area. The race and functional area
association required the null hypothesis rejection that no significant group difference exists.

**Hypothesis H2a, Subquestion H2b**

Subquestion Hypothesis 2b was do enlisted women in the U.S. Army serving in the occupational functional areas of operations and force sustainment differ in rates of retention over the span of a career? (H2b: \( \mu \) operations minority = \( \mu \) operations majority = \( \mu \) force sustainment minority = \( \mu \) force sustainment majority.) Measurement of migration, if any, between the functional area that women enter the U.S. Army and functional area of Sergeants Major required a second request for data from the DMDC. The active duty master file did not include the race and MOS before fiscal year 2000. Data extracted from the fiscal year 2000 active-duty master file included race and MOS of nonprior service women that entered the U.S. Army during fiscal year 2000. Each MOS was coded as operational or force sustainment functional areas.

### Table 4.6

*Crosstabulation of Race and Functional Areas of Service*

<table>
<thead>
<tr>
<th>Race</th>
<th>Functional Areas of Service</th>
<th>Operations</th>
<th>Force Sustainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>30</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-4.5)</td>
<td>(4.5)</td>
<td></td>
</tr>
<tr>
<td>Majority</td>
<td>37</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5.0)</td>
<td>(-5.0)</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>11</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(0.0)</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Adjusted residuals appear in parentheses below observed frequencies.*
2000 Accession and 2017 SGM Race and Functional Areas

The chi-square test of independence was performed to test between-group differences and determine if the functional area distribution of women ($n = 13,466$) entering the Army in FY2000 and the Sergeants Major ($n = 268$) serving at the beginning of FY2018 is by chance or the presence of association among race and functional area. Not included in the analysis are the women ($n = 12$) serving in nominative positions (general officer level).

Chi-square test of independence. A chi-square test of independence was conducted between women’s functional areas of service during fiscal year 2000 accession and 2017 Sergeants Major. All expected cell frequencies were greater than 5. There was a statistically significant association between women’s functional areas of service during FY 2000 accession and 2017 Sergeants Major in the U.S. Army, $\chi^2(3) = 165.599$, $p < 0.0005$. The association was weak (Cohen, 1988), Cramer’s $V = 0.113$. Therefore, the H2b null hypothesis was rejected that no difference existed between the race and functional areas of women over time.

Table 4.7 displays the analysis that women of the majority race entering the U.S. Army in fiscal year 2000 participated at a higher rate (13.7%) than expected (11.4%) in operations. Women of the majority as Sergeants Major in 2017 participated at a lower rate (0.5%) than expected (1.3%) in force sustainment. Women of a minority race entered the U.S. Army in fiscal year 2000 at a lower rate (8.5%) than expected (11.4%) in
operations. Women of a minority race as Sergeants Major in 2017 participated at a higher rate (88.7%) than expected (86.8%) in force sustainment and at a higher rate (2.3%) than expected (1.3%) in the operations functional area.

Figure 4.3 illustrates graphically the crosstabulation of women’s functional areas of service over time presented in Table 4.7. Accessions of women into the U.S. Army in fiscal year 2000 (n = 13,466) indicates women of the White race (Hispanic included) represent 46% of the population entering the operations functional area.

All groups of women depicted in Figure 4.3 increase in representation as Sergeants Major in 2017 (n = 268), except White women serving in force sustainment. The 13% representation of White women in 2017 as Sergeants Major is a reduction within the total population of 33%.

Summary

Results of the Kruskal-Willis, Mann-Whitney U, and chi-square tests conducted include statistically significant between-group differences in every subquestion analyzed.

All quantitative null hypotheses and subquestions were rejected. Analysis of datasets

Table 4.7

*Crosstabulation of Women’s Functional Areas of Service Over Time*

<table>
<thead>
<tr>
<th>Race</th>
<th>Operations FY 2000 Entry</th>
<th>Operations FY 2017 SGMs</th>
<th>Sustainment FY 2000 Entry</th>
<th>Sustainment FY 2017 SGMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>476 (-9.3)</td>
<td>30 (0.2)</td>
<td>4,991 (5.6)</td>
<td>129 (9.3)</td>
</tr>
<tr>
<td>Majority</td>
<td>1,005 (9.3)</td>
<td>37 (-0.2)</td>
<td>6,256 (-5.6)</td>
<td>34 (-9.3)</td>
</tr>
</tbody>
</table>

*Note. Adjusted residuals appear in parentheses below observed frequencies.*
associated with the null hypotheses of H10, summarized in Table 4.8, were linked among subquestion H1a initial results, H1a posthoc analysis for an association to race, and subquestion H1b association of rank. H1b analysis was reliant on an initial finding of a significant group difference in each area of (a) hostile work environment, (b) sexual military equal opportunity, (c) gender discrimination, and (d) sexually hostile work environment. Subquestion H1b was used to isolate the independent variable of rank for analysis of association between groups with mixed results as depicted in Table 4.8.

Subquestion H1c results, independent of subquestions H1a and H1b, included the finding of between-group differences and H1c null hypothesis of equal frequency of women in all pay grades in the U.S. Army regardless of race/ethnicity was rejected.

**Figure 4.3.** Functional area FY2000 and 2017 Sergeants Major representation. Adopted from “Active duty Army E9, gender, race, occupation, and years of service status [September 30, 2017],” and “2000 and 2017 Active duty Army accessions E1-E4, race, and occupation,” by Defense Military Data Center Reporting System.
The focus of hypothesis H20 shifted to functional area analysis and the presence of between-group differences between race, rank, or functional area. Through data analysis of the second quantitative hypothesis subquestions, statistically significant between-group differences were indicated and the null hypotheses were rejected.

Quantitative analysis contributed to the confirmation of the presence of career barriers and the identification of differentiated barriers between groups of women by race and rank. Results included the finding that race is statistically significant as it relates to participation in the functional areas. Available data do not support an association of gender-based barriers to the functional areas, the use of qualitative analysis added to the cross-case comparison of differentiated barriers faced by women in the U.S. Army within the functional areas.
Qualitative Analysis

The qualitative analysis included a comparison of themes and subthemes identified between the two cases of operations and force sustainment. The case unit of measure was individual women, analysis of their interview responses were combined in the findings of similarity and differences between the two cases.

Participant Description

The qualitative portion of this study includes a total number of 12 \( (n = 12) \) participants; their demographic information is presented in Table 4.9. Each participant is identified with an alphanumeric pseudonym to protect the confidentiality of the participants. The rank of the participant in all instances was that of Master Sergeant (MSG). The numeric order of each interview was used to identify MSG1 through MSG12. The participants, all women attending the U.S. Army Sergeants Major course at the time of the interview, were an average age of 40 years, and had served an average of 20 years of active duty in the U.S. Army.

The participants’ bivariate functional areas of service as operations and force sustainment populated the two cases. The total number of participants in the operations case was 5 \( (n = 5) \), and the total number of participants in the force sustainment case was 7 \( (n = 7) \). The women represented 15 different military occupation specialties (MOSs), and nine U.S. Army Branches. Table 4.10 shows the Army branches represented by functional area of the participants.
Table 4.9

**Demographics of U.S. Army Participants**

<table>
<thead>
<tr>
<th>Participant Alpha Numeric Identifier</th>
<th>Gender</th>
<th>Age</th>
<th>Ethnicity</th>
<th>Functional Area</th>
<th>Years of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – MSG1</td>
<td>Female</td>
<td>43</td>
<td>Minority</td>
<td>Operations</td>
<td>23</td>
</tr>
<tr>
<td>2 – MSG2</td>
<td>Female</td>
<td>45</td>
<td>Nonminority</td>
<td>Sustainment</td>
<td>22</td>
</tr>
<tr>
<td>3 – MSG3</td>
<td>Female</td>
<td>39</td>
<td>Minority</td>
<td>Sustainment</td>
<td>19</td>
</tr>
<tr>
<td>4 – MSG4</td>
<td>Female</td>
<td>36</td>
<td>Minority</td>
<td>Operations</td>
<td>17</td>
</tr>
<tr>
<td>5 – MSG5</td>
<td>Female</td>
<td>37</td>
<td>Nonminority</td>
<td>Sustainment</td>
<td>18</td>
</tr>
<tr>
<td>6 – MSG6</td>
<td>Female</td>
<td>42</td>
<td>Minority</td>
<td>Sustainment</td>
<td>22</td>
</tr>
<tr>
<td>7 – MSG7</td>
<td>Female</td>
<td>41</td>
<td>Minority</td>
<td>Sustainment</td>
<td>23</td>
</tr>
<tr>
<td>8 – MSG8</td>
<td>Female</td>
<td>38</td>
<td>Minority</td>
<td>Sustainment</td>
<td>19</td>
</tr>
<tr>
<td>9 – MSG9</td>
<td>Female</td>
<td>39</td>
<td>Minority</td>
<td>Operations</td>
<td>20</td>
</tr>
<tr>
<td>10 – MSG10</td>
<td>Female</td>
<td>36</td>
<td>Nonminority</td>
<td>Sustainment</td>
<td>15</td>
</tr>
<tr>
<td>11 – MSG11</td>
<td>Female</td>
<td>45</td>
<td>Minority</td>
<td>Operations</td>
<td>24</td>
</tr>
<tr>
<td>12 – MSG12</td>
<td>Female</td>
<td>36</td>
<td>Nonminority</td>
<td>Operations</td>
<td>18</td>
</tr>
</tbody>
</table>

*Note.* MSG is the abbreviation for the U.S. Army rank of Master Sergeant. The number following MSG is the sequence of the interviews conducted. MSG1 was the first Master Sergeant interview participant.

Table 4.10

**Participant Branches Represented**

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td>1. Engineer</td>
</tr>
<tr>
<td></td>
<td>2. Aviation</td>
</tr>
<tr>
<td></td>
<td>3. Signal</td>
</tr>
<tr>
<td></td>
<td>4. Military Intelligence</td>
</tr>
<tr>
<td>Force Sustainment</td>
<td>5. Health Services</td>
</tr>
<tr>
<td></td>
<td>6. Transportation</td>
</tr>
<tr>
<td></td>
<td>7. Soldier Support</td>
</tr>
<tr>
<td></td>
<td>8. Quartermaster</td>
</tr>
</tbody>
</table>

*Note.* A maximum of 10 branches is represented by women attending the Sergeant Major course at the time the interviews.

The maximum potential participant representation of U.S. Army Branches within the student population attending the Sergeant Major course was 10 at the time of the interviews. Women from operational branches (n = 14) represented five branches. The
four operational branches represented by interview participants are displayed in Table 4.10 and the one branch not represented in the interviews was Air Defense Artillery.

Women from force sustainment branches \((n = 48)\) also represented five branches. The four force sustainment branches represented by interview participants are also displayed in Table 4.10 and the one branch not represented in the interviews was Ordinance.

**Themes**

A review of subcoded sections within each of the five interest areas was used to inform the creation of three themes presented in Table 4.11. Further review of coded segments and notes revealed additional subthemes, also presented in Table 4.11.

Subthemes overlapped each of the cases but aligned more with one case than the other within the themes of career planning and adapting communication for the U.S. Army culture. Participant responses in both cases aligned with obstacles of integration subthemes.

Table 4.11

*Case Themes*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career planning</td>
<td>1. Managing a career and family plan</td>
</tr>
<tr>
<td></td>
<td>2. Planning and attaining career-enhancing assignments</td>
</tr>
<tr>
<td>Adapting communication for the U.S. Army culture</td>
<td>3. Communicating self-agency</td>
</tr>
<tr>
<td></td>
<td>4. Establishing and maintaining credibility and reputation</td>
</tr>
<tr>
<td>Obstacles of integration</td>
<td>5. Maneuvering integration obstacles</td>
</tr>
<tr>
<td></td>
<td>6. What men need to know</td>
</tr>
</tbody>
</table>
Each of the five areas of interest aligned with the three themes. The first theme, career planning, was aligned with the first three areas of interest: (a) recruitment, (b) promotion, and (c) reenlistment. The second theme, adapting communication for the U.S. Army culture, was aligned with the fourth area of interest: participation. The third theme, obstacles of integration, was aligned with the final area of interest: integration. Further, theme and subtheme case difference comparisons were made and provided in the qualitative findings. The theme of career planning is the first analysis presented.

**Qualitative Findings**

In response to semi-structured interview questions, a range of practices, techniques, and strategies in use by women in the U.S. Army as moderators of gender-based barriers were collected. Interviews focused on the five interest areas of (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration. Interview responses did not include support for the use of moderators of gender-based barriers in the interest areas of recruitment and retention. The findings are presented using rich descriptions of interview participant experiences that illustrate the three themes that emerged from the coding and analysis.

The three themes are (a) career planning, (b) adapting communication for the U.S. Army culture, and (c) obstacles of integration. The findings are presented in the sequence of the five semi-structured interview (see Appendix A) interest areas within the three themes and include six subthemes. The final section presenting the qualitative findings contains identified moderators of gender-based barriers interview participants included
most in responses and identified as most effective. The qualitative findings begin with the career planning theme, which covers the first three areas of interest.

**Career Planning**

The first qualitative research question included the five areas of interest. Question 1 was what moderators of gender-based barriers do enlisted women selected for promotion to Sergeant Major use to support their (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration?. Career planning, the first of three themes, includes responses related to the first three areas of interest within the first qualitative research question to understand what moderators of gender-based barriers enlisted women selected for promotion to Sergeant Major use in support of their (a) recruitment, (b) promotion, and (c) retention. Interview responses did not include the identification of any moderators used by the participants specific to the first interest area of recruitment or the third interest area of reenlistment. Interview responses did include the use of multiple gender-based moderators linked to the second interest area of promotion and nongender specific strategies to increase the potential for promotion in the U.S. Army.

Findings related to the career planning theme include the subtheme of managing a career plan and family plan and the subtheme of planning and attaining career-enhancing assignments. Similarities and differences between the two cases of operations and force sustainment begin with the first interest area of recruitment and end with the third interest area of retention.
Recruitment

All participants reported entry into the Army without the use of any gender-based action or strategy to increase their potential for enlistment into the Army. Three participants reported actions taken during recruitment or initial entry related to their physical body composition and physical training. To meet the height and weight standard requirements, MSG6 reported working with a recruiter: “I had to lose weight. I was over the standard . . . . It took several months to lose the weight and then I made it enough that I joined the military.” In fear of being a holdover at the reception station in route to basic training, MSG9 said, “One thing that I did was with the recruiter, we worked out. I made it a point to run, do push-ups, sit-ups, so that I wouldn’t get in and get stuck at reception.”

Unlike MSG9, MSG8 entered the U.S. Army unaware of the physical requirements of the Army; she explained: “I couldn’t do push-ups. I couldn’t run. I couldn’t eat fast.” As a recruit, after the initial few days of induction at the reception center, before the start of basic training, MSG8 was unable to demonstrate the physical upper body strength required to leave the reception station. MSG8 recalled, “I wasn’t able to do the 10 push-ups to leave the reception. You’re supposed to do 10 push-ups or something. I was in holdover. I was like, I can’t believe I’m in holdover because I can’t do a push-up.” MSG8 remained at the reception station as a holdover until demonstrating the ability to execute 10 push-ups.

The behaviors described during the interviews relate to general U.S. Army standards of body weight and strength required of both men and women entering the
Army. Participant interview responses did not include the use of any behavior or experience as a moderator of gender-based barriers to support their recruitment. Unlike recruitment, participants recalled multiple moderators of gender-based barriers relating to their promotion.

**Promotion**

After entry into the U.S. Army, individual soldiers advance in rank following the select-train-educate-promote (STEP) concept prescribed within the Army regulation for promotions and reductions (U.S. Army, 2016a). Participants provided responses that included moderators of gender-based barriers and nongender specific practices used to enhance their selection for promotion. Participant responses from the operations case and the force sustainment case included common planning practices to increase their potential for promotion. Cross-case differences in executing a career plan informed two subthemes. The first subtheme of managing a career and family plan aligns most with the responses provided by participants of the force sustainment case.

**Subtheme: Managing a career and family plan.** Managing a career and family plan is a subtheme that links career and family planning through all phases of a career. Seventy-five percent of interview participants commented on having children. Each case included similar interview responses related to the subtheme and identifiable cross-case interview response differences. Common among both cases, nearly 60% of participants recounted the need to plan a diversified career and account for family desires.
Participants recalled their reluctance to taking assignments in units outside of Forces Command (FORSCOM) like TRADOC. For example, MSG6 said, “I was brought up in a military at the time that you have to be in the fight to get selected for promotion. I didn’t want TRADOC or anything else to slow my progression.” After expressing her desire to accept an assignment at the Human Resources Command following her next deployment, MSG6 reluctantly took the advice of her branch Sergeant Major to diversify her assignments. MSG12 echoed the benefits of holding diverse positions and recalled, “My ERB, I’ve been told, reads very well because I have gone from FORSCOM units to TRADOC units, strategic level units and then back down to tactical units. I have run the gauntlet of types of units especially for my MOS.”

Participants recounted not following recommendations or requests to relocate in every instance. Participants identified a lack of diversified assignments as detrimental to career progression. MSG7, for example, chose not to diversify when requested to do so and recounted the impact of her decision:

I have learned the one time that I didn’t go where HRC sent me, is probably the one time in my career where it prolonged my promotion. I didn’t do what the Army and [branch] wanted me to do at the time. Which was a Platoon Sergeant at AIT [Advanced Individual Training] and go to [a new post], and I chose because I totally loved being in the 82nd, to stay in the 82nd. And in the long run, I was passed up because I didn’t diversify when I was supposed to.

Career planning repeatedly focused on the career management field (CMF) of each individual. Participants compared the career progress of men and women within their CMF (i.e., Aviation and Quartermaster) and not the entire U.S. Army. MSG7 said:

When it comes to promotions, I really do look at how others are getting promoted within the same career path as I am, male and female. There are common trends
within each one of us that gets you to the Sergeant Major level which is the top for enlisted ranks.

Other participant responses focused on individual CMFs, such as MSG4: “In my CMF, they don’t tell you that you have to have a college degree, but a college degree will make you more competitive against your peers.” MSG9 said, “I always made sure my focus was my CMF because those are the people that I am competing against.” Career comparisons within a participant’s CMF included a desire as to “strive to do the things that set yourself apart from everyone else” (MSG10). Believing assignments and accomplishments different from others in a participant’s CMF are career enhancing, MSG11 remarked:

I wouldn’t say outcompete my male competitors as far as evaluations but try to do things that are out of the ordinary like additional duties different assignments that no one else wanted to take. That would be the only thing; I would say I did differently between my male counterparts.

Another participant, MSG9, recommended the Army career tracker (ACT) as a tool to compare her career to others and map potential goals:

Stick with the Army career track because that is a map of how you get to where you want to take those jobs when you are younger, and you don’t have any injuries . . . . The Army career tracker is the main piece. I tell [women] that is your career map follow it, it tells you everything that you need that’s how I got [to the Academy].

In addition to planning diverse career assignments, participants described challenges women face when navigating the STEP concept (U.S. Army, 2016a) and having children. For example, MSG10 shared the view of a policy obstacle that has the potential detrimental effect of slowing the advancement of women:
The current STEP program—the select, train, educate, and promote—doesn’t do a lot for a woman having a child. If me and you, a male and female, were to go to the E4 board together and we were both selected for promotion, we still have to go to school before we can be promoted, and that school can be months out. If I get pregnant before I go to school, I cannot be promoted. I have to do 20 months of pregnancy, profile, bonding time. It is a total of about 20 months before I’m even eligible to go to school to get promoted to E5. And that whole 20 months you’ve gone to school. You’ve got promoted. You may even start being considered to go to the Staff Sergeant board, and I am still an E4.

After navigating the promotion path to the highest enlisted rank, a concern that pregnancy could impact leadership positions included comments from MSG9 that felt that if she decided to have a child:

That is another whole situation: God forbid I’m a pregnant Sergeant Major. As a [Command Sergeant Major], I would probably be shunned. I definitely don’t think being a pregnant senior leader in these positions like Sergeant Major or First Sergeant that will never happen.

MSG9 also said, “As it relates to the females that are younger, I throw in the pregnancies in there because we have to be strategic about when we have kids because leadership positions may not come.”

Diversifying career assignments within an individual’s CMF and planning for a family are examples of career planning behavior identified by participants as beneficial to their career. Family planning strategies between the two cases spanned the continuum from avoidance of having a family to techniques used to enhance family-work balance. Operational case participants provided less support for balancing work and family than force sustainment case participants.

**Operations case: Career planning.** Interview participants from the operations case recommend focusing on one’s career focus and delaying bearing children. They also
made recommendations for women wanting to have children to plan around hard jobs early in career, leadership roles, and required military schools. One participant recounted different choices made in support of personal career goals depending on individual aspirations to serve at the highest levels of the U.S. Army. MSG4 recommended diverse assignments and the development of a strategic perspective, expressing:

If you’re not willing to do that [diversify assignments] based on your personal preferences whether or not it’s because you decided to become pregnant, you chose to have a family understand there might be things or opportunities; you might not be able to embrace because your responsibilities and as an individual. I think that is very important to understand. For me, I’m young enough that I can still have a kid if I want to.

MSG4 also explained:

I made a choice. I don’t have a family that is a personal choice. If I was to have a family and little ones and all the stuff, I would probably be overwhelmed, and I would probably not be able to be doing a PhD program or two PhD programs at the same time. It would be impossible just because my priorities would be somewhere else, and I know myself, and I know the school is not my priority with kids.

When planning a career and having children, MSG9 noted:

I tell [women] try to get those jobs [i.e., recruiter and Drill Sergeant] early on because we have babies . . . have your babies then take a pause so you can go to BLC [Basic Leader Course] and then have another one, but I try to brief them as best as I can, we have to plan.

Finally, the views expressed by operations case participants did not include any mention of work-family conflicts or family care plan (FCP) challenges.

**Force sustainment case: Family work balance.** Different from the operations case participants, force sustainment case participants described work-family conflicts and challenges encountered with supervisors not understanding the function of an Army FCP.
Comments made by force sustainment case participants included practices used as moderators of family work balance challenges. For example, MSG10 remarked:

I really planned out what I thought life should look like. It’s really hard as a female to find that balance between family and work. . . . You find that balance very hard where men who have a stable house and a stable wife and kids at home, they know that is taken care of. Whereas a mom you’re trying to do both, it is exhausting. It is exhausting.

After volunteering multiple times to deploy to a combat zone and wanting to return to her deployed, MSG6 described making a personal choice to curtail the recovery time provided by policies after childbirth. She recalled that decision and said:

That deployment was challenging. I was in Iraq as I decided, and I’ll tell any female, and if I am ever in that position, I will tell any female never to do it, I actually waved my dwell time I had just had a baby. You are supposed to have 6 months, and I waved it [to deploy overseas early].

Similarly, when faced with the challenges of work-family balance, MSG10 felt women sometimes must make a choice. In reflecting on her career and family choices, she said, “Do you want to be a mother, or do you want to be a soldier? And you almost sometimes feel like you have to choose which one you want to do.”

Interview participant responses also included practices to moderate work-family challenges like requesting assignments near family or having family members move in. MSG3 requested an assignment near her family and explained the benefit of having done so:

Then I went to [the] base and spent 4 years there that was nice my parents retired from [the same] base. That was like a blessing in disguise. I was a single parent. So, I was able to be with my parents to help.
Multiple interview participants from the force sustainment case expressed the general lack of understanding in the U.S. Army of what a FCP is and how it is used. After having children, participants became more aware of the challenges related to child care and leader expectations that if a soldier has a FCP, they can activate their plan with no notice. According to MSG8, for example:

Sometimes it’s not about a wife at home; you have a family care plan, but the family care plan is in case of a mission, or a deployment, not in case you call me and say I need to be here in 20 minutes. Those kinds of things like that is hard sometimes to pass that message to the male leader and based on all the other areas they figured out they just don’t have an understanding.

Another force sustainment interview participant, MSG10, recalled a conversation she had with a leader around the approaching closure of her child’s daycare center and said to her supervisor:

Hey, you know it is 6 o’clock? I need to go get my child, CDC [Child Development Center] is closing, and [Supervisor], “Well, what does your family care plan say?” Well, that is a long-term, short-term family care plan. What you have me doing right now is not on the training calendar.

MSG10 also said:

You have to as a single parent, you have to go get your child. There is nobody that can go get them. “So, what’s your family care plan?” It’s not on the training calendar what you’re asking me to do is not a planned item. I can go get them and bring them back, and I can stay. I need to be released to go get them. That is a big obstacle to overcome.

Summary. Interview participants from both cases described techniques and practices used to manage their career and family plan if they had children. Career plans included the use of tools like the ACT and monitoring of others within their CMF. Participants highlighted the career enhancements gained by having a diversity of
assignments and experiences. Cross-case differences within the subtheme include the career emphasis of interview participants from the operations case and moderators of work-family balance described by members of the force sustainment case. Cross-case similarities and differences continue with discussions focused on the type of assignments coveted by participants and the approaches used to attain desired positions.

**Subtheme: Planning and attaining career-enhancing assignments.** The second subtheme within the interest area of promotion involves the actions, techniques, or practices expressed by interview participants associated with the planning and attainment of career-enhancing assignments. Women from both cases described how they increased their potential for promotion through volunteering, fitness, and contributions to the team. Cross-case differences are visible in the type of assignments participants in each case gravitated toward and the identity of whom the women perceived as their competition.

Interview participant responses included an early focus on a career, such as MSG3, who said, “I focused on my career at the beginning that is just what it was a career.” Sixty-seven percent of participants overall and over 70% of sustainment case participants said they benefited from volunteering for specific positions and in general. One participant said, “I was volunteering to deploy, volunteering to go to the field taking leadership positions.” Another participant remarked, “You have to be the one to do those jobs that others don’t want to do. Many of the positions, I got them because I was like, I’ll do it.” MSG12 attributed her volunteering for positions to her increased promotion potential and said, “For promotion, I mean, I think it just goes back to me volunteering
for different positions. Anytime something new was offered up I was like, I’ll do it.”

When vacancies in the U.S. Army Sexual Harassment/Assault Response and Prevention Program (SHARP) went unfilled, two interview participants volunteered for the position. MSG5 recalled, “When others didn’t want to do it, I stepped up again with the SHARP.” MSG10 also volunteered and said, “Nobody really wanted to do it because they didn’t know what it was, and so I volunteered to become the SHARP NCO.”

Participant volunteering went beyond occupational positions and included community volunteering. General volunteer work in the community was highlighted by MSG1 when she described her experience:

I used to volunteer with what we called sister school programs, or community programs, and volunteered to do any of the special services events that were on post or different installations. Those kinds of things probably made me stand out sometimes better than my peers because I might have worked with someone on a committee or doing something not just at work and see me at work along with staying mentally and physically fit.

Interview participants also shared the benefits of maintaining individual fitness, contributing as a member of the team, and overcoming fears. Describing the gender-based strategy of differentiation of records by focusing on education, one participant expanded on the importance of physical fitness to increase the potential for promotion. MSG9 said:

I felt like I needed to make sure I had the highest PT [physical fitness test] score because that reflected on your ERB . . . . I knew a lot of males didn’t have degrees, they didn’t have certifications, so I went the education route. That I was comfortable with and I wasn’t that 300 [max score] PT stud. I try to get the highest score that I could get, and I always tried to keep a slim appearance and keep my hair all slicked back and looking as professional as I can. I think the PT test or score and the weight was the biggest thing.
Common to both cases, 42% of women mentioned the need to overcome fear to increase the potential for promotion in the U.S. Army. As on illustration, MSG6 posited, “When you’re weak in a certain area, and you seek out to improve those areas by doing it if you fail, you fail, you learn from it but not fearing that.” An interview participant of the force sustainment case stated that she responds to the question “How did you get that [rank] so fast?” with:

I worked. My ERB says that I’ve been working. It is just don’t be afraid of the challenge. That is something that is normal it’s human nature that we are afraid of the unknown. It is always challenging because you don’t know.

Overcoming fear is also a moderator described by one of the interview participants of the operations case. MSG12 recalled, “One thing that I’ve tried to encourage in all the females I’ve had, is don’t be content with the status quo go out there be adventuresome see what else there is and expand your horizons.” MSG9 offered a similar view, saying, “Don’t be afraid to switch duty assignments, like when I was at [the same base] for 6 and a half years, I had four different assignments in four different units.”

**Operation case: Leadership assignments.** Operations case participants indicated a desire to not only seek advantageous assignments that collectively demonstrated a diversity of experiences, but they also desired leadership positions. Unique to the participant responses of the operations case is the lack of identification of whom the participants compete with as they seek leadership positions. One participant described how seeking leadership positions became a routine like that of men in the U.S. Army. MSG1 noted:
My Sergeant Major in Korea pushed me to get more leadership jobs and look for more leadership opportunities. That’s pretty much what I did. I had some of the experience I needed to apply and get a little more, and that’s always what I’ve been told to look for opportunities that don’t wait for everything to fall on you. Ask questions, ask what they’re looking for, ask what they want now.

Aggressively seeking leadership opportunities, MSG9 recalled:

When I made the Master Sergeant list [selection for promotion], I was on the list 15 months before I got picked up [promoted]. Two weeks after the list came out, I went to my brigade CSM [Command Sergeant Major] and said, “Hey I want to be a First Sergeant.” So, I was a First Sergeant as a Sergeant First Class for 15 months.

The opportunity to hold a leadership position wearing the rank of First Sergeant before her promotion provided MSG9 an evaluation as a First Sergeant before actually being promoted. MSG9 later sacrificed the tradition of taking an extended leave (more than 1 week and regularly between 30-60 days) when changing duty stations. MSG9 knew if she timed the transition and requested a leadership position as previously done, a rating might be possible in a vacant position:

I maybe took a day of leave and then I had the four days to drive from the East Coast to [the base], and I got 5 months of rated time as an Operation Sergeant Major’s [E9] that was major for me as a Master Sergeant [E8].

Operations case participants linked leadership positions to the increased potential for promotion. In some instances, participants took aggressive actions to secure a leadership position, like the experiences recalled by MSG9. Force sustainment participants developed career plans around the needs of the Army and did not specifically seek leadership opportunities.

**Force sustainment case: Needs of the Army.** Highlighted in the responses of force sustainment case participants was the desire to understand the needs and direction...
of the U.S. Army. Participants sought opportunities in positions identified as important to
the Army and filled them. Sharing a competitive nature with operations case participants,
force sustainment participants differed in their description of competing with themselves
and not against others. Finally, force sustainment participants recommend civilian
education to compensate for other career area shortfalls.

Like the previous statements made recommending the review of the ACT, and
making comparisons within an individual’s CMF for diversifying and differentiating
opportunities, MSG6 conveyed:

I think really just seeking out the opportunities, and the opportunities may not be
something that you’re comfortable with you know. It might be something they are
not comfortable with and become comfortable.

Similarly, MSG7 said:

If the Army is saying it is low on recruiters and Drill Sergeants. That is your next
level if you are at the Staff Sergeant [E6] or even at the Sergeant [E5] level you
can start planning that out. That is probably where you need to be. . . . I call it
going through the doors of opportunity because soon as you show that you’re
willing to go through a door of opportunity another door will open.

Within the force sustainment case, one participant described the exploitation of
female cultural gender norms to benefit the creation of displays unique to an assignment,
explaining, “It has a woman’s touch. That’s what I was referring to. I have drawn on that
with my career, and it has helped getting those nominative positions.” Eighty-six percent
of sustainment participants also identified the effectiveness of gaining knowledge and the
opportunities that followed. One participant, MSG10, recalled developing knowledge by
conducting research after being told something second hand. She said:
I would just say that knowledge is power, and a lot of people don’t realize that especially young soldiers is, “Oh my Sergeant Major told me that,” so they take it and they take it as truth or as gospel. Where for me if somebody told me that, I want to see it. I wouldn’t debate with them back and forth, tell me where you found that. I would say, “Okay,” and then I would literally go find it and read it and understand it.

MSG8 echoed the importance of self-development of knowledge:

For myself, I would say, knowledge that was from coming up in the ranks that was one of the things early in my career I realize that this is one of those tools. I started going to boards like soldier of the month board, getting ready for promotion board, and all of those boards force me to do was look at regulations and see what they have to say about being a soldier.

Finally, force sustainment participants minimized the threat of competing with men. The statement made by MSG3 typifies this sentiment: “At the end of the day, you are your own competition.” Building on the same idea, MSG5 recommended that women “just do your best. Don’t leave nothing. Put it all on the table.”

**Summary.** Interview participants shared the practice of planning and attaining career-enhancing assignments. Participants in each case recalled practices used to maximize opportunities; both cases volunteered for less desired assignments and held leadership positions. Participants of the operations case sought leadership positions more aggressively than participants of the force sustainment case. Participants also expanded civilian education accomplishments as a strategy to increase promotion opportunities. Participant practices enhanced promotion opportunities, extended retention control points (RCPs), and reduced challenges associated with reenlisting in the U.S. Army.
Retention

All participants reported reenlisting to remain on active duty in the U.S. Army was possible without the use of any gender-based action to increase their potential for reenlistment. Participants described three reenlistments over a career and the ease of qualifying for reenlistment. Common to each participant was a first reenlistment, between 3 and 4 years of service. One participant said, “I’ve never had issues with [reenlisting] my first reenlistment took me to [a station of choice], and I was literally just eligible.”

Another stated:

I feel like the Army wants you around if you can perform certain things and those certain things are pretty easy in the Army. Stay physically fit. Pass your PT test and do pretty well, and the Army likes that, and the mission respects that because that’s being a fit warfighter.

Participants described their second reenlistment in a similar time sequence of 3 years later and the third, near 10 years of service. The final reenlistment is described as entering an indefinite (INDEF) active duty status. MSG12 said, “When you go over 10 [years of service], you become a careerist.” Interview participants recalled the benefit of having a MOS that experienced personnel shortages or was in high demand within the U.S. Army. MSG10 stated:

I happen to be in a really great MOS where it went really low for a while, and they wanted to spend money on reenlistment bonuses and things like that. I originally came in the military to do a few years and to get out, and through that time I really did gain a love for the Army.

Another participant echoed the benefit of her MOS:

Being an MOS that is probably never going to go away because it’s been around since the beginning of time, which is medical. [That] has always benefited me
during reenlistment because there’s always been a spot for a medic, male or female.

Denying a soldier the ability to reenlist was described as difficult when a soldier was eligible and met the requirements to reenlist. MSG2 explained:

As far as reenlistment is considered, as long as you are eligible to reenlist, and you meet certain criteria, it’s very hard to deny it because I never get in trouble. I knew that reenlisting was not going to be an issue that my commander would approve my reenlistment. I never had to do anything special, just made sure that I stayed out of trouble and passed the PT test.

Interview participants from both cases recounted the ease of reenlisting in the U.S. Army. Each met requirements like passing the physical fitness test, and, when eligible, reenlisted without complications. Participants serving in high demand occupations or during times of low reenlistments also received incentives or additional pay to reenlist. Basic reenlistment requirements included the need to attain a rank before the mandatory dismissal triggered by reaching a RCP or date associated with each rank.

Interview participants described a contributing element of continued service and reenlistment eligibility in the way women overcame gender-based barriers of communication in the male-dominated culture of the U.S. Army.

Summary.

The findings within the career planning theme included the ease of recruitment and retention experienced by the interview participants juxtaposed to the management of a career. Understanding that a career is only possible through promotion, participants recalled various moderators of gender-based barriers highlighting the use of planning, volunteering, and civilian education. Cross-case comparison of operations and force
sustainment participants’ strategies identified similarities and differences in approach to assignments and having a family. Operations case participants focused on maximizing leadership assignments and deemphasized having a family. On the other hand, force sustainment case participants sought U.S. Army high-priority assignments and planned whether and when to have children. Sustainment participants also sought leadership positions like operations participants; the difference was found in the singular focus of operations participants to maximize leadership opportunities. Critical to consideration and selection for promotion, all interview participants identified communication techniques as moderators of gender-based barriers.

**Adapting Communication for the U.S. Army Culture**

The second of three themes, adapting communication for the U.S. Army culture, includes responses related to participation, the fourth area of interest within the first qualitative research question. Interview participant responses added to the understanding of what moderators of gender-based barriers enlisted women use, who are selected for promotion to the rank of Sergeant Major. Responses informed the identification of two subthemes: (a) communicating self-agency and (b) establishing and maintaining credibility and reputation. These subtheme findings include interview participant response similarities and cross-case differences in participation.

**Participation**

Each soldiers assigned to an organization fills a unit vacancy. Upon arrival, like any group of people, soldiers are expected to become a participating member of the
organization. Women’s interview responses described how and when they used moderators of gender-based barriers related to participation.

**Subtheme: Communicating self-agency.** To participate as a member of the team, verbal and nonverbal communication, along with accounts of assimilation to the masculine culture dominated interview participant responses. Eighty-three percent of participants described actions to increase personal representation of views, ideas, and positions with similarities to the list of agentic attributes often ascribed to men, according to role congruity theory (Eagly & Karau, 2002). Participants identified practices to serve as moderators of gender-based barriers and to confidently assert ideas and positions in a way that reduced various forms of potential backlash.

Communication practices included an assessment of when to engage in conversation followed by a strategic assessment of the best future location to argue a position or plan. Further, participants shared the importance of self-assessment and maintaining a moderate demeanor during conversations. The exception shared by several participants to hold back in conversations until another time was typified by the sentiment expressed by MSG1: “We can have a mutual disagreement, but if you become disrespectful, I might tend to be a little bit more argumentative and stand my point and then come back after we’ve had this full argument.” Another participant explained that when communicating, “you have to adapt and know your people, know your audience. You have to be able to be sociable, not just be focused on working with one group. You
won’t be successful.” Consistent among responses was self-advocacy to be confident and assertive in expressing ideas.

Confidence was observable in the assertive communication practice and tenacity exhibited when MSG2 said, “I'm going to come right into your group, and you will accept me, dammit! If you want to or not. And eventually, I will grow on you.” The dramatic communication practices provided by MSG2 were not something shared by others, but multiple participants expressed the need to find the confidence necessary to engage in self-agency. Concerned over the lack of confidence observed as a mentor to other women, MSG12 said, “I give to any female, if you have an idea, go with it because nine times out of 10, it is a good one, to see it through to fulfillment.” Another participant with a strong personality, MSG4, shared a different concern and communication practice:

I’ve learned to be quiet and listen more than talk and because automatically I’m a Type A personality, and you say something, and my ears don’t rub. I will say it very politically, but I will say, “Excuse me, sir, how are you doing today? Let’s talk about this a little bit more.”

Dialogue evaluation contributed to women describing a practice of listening before engaging in a conversation. For example, participants like MSG1 delayed participation in arguments until a later time and or different setting:

I would engage on it in a different form, and I would ensure that I knew what I was talking about. I would do my homework and being knowledgeable on something before I just became argumentative and disgruntled. You don’t have the full 360 just looking at your 180. That happens a lot, some people just see what they see right here and are not thinking about the total 360, and therefore we have disagreements and opinions.

Fifty percent of interview participant recommended the practice of assessments, including self-assessments, as demonstrated when MSG10 said, “First, know who you
are,” and when MSG1 described learning to “keep a listening ear and to be situationally aware, [knowing] my leader’s strengths and weaknesses, and I know my own strengths and weaknesses.” Assessments beyond identifying strengths and weaknesses extended to the potential perceptions held by others. MSG3 self-assessed the desired effect of earning respect through demonstrating task proficiency over communicating an authoritarian style. She explained, “Some people want to invoke fear, and that is just not my personality. If I tried it, it would probably be funny.” Concerned with the potential perception of others, MSG9 said, “I was very careful, and I always did self-assessments to be careful of my delivery.” Another assessment of the increased potential to be perceived as emotional informed a notification practice described by one participant:

I would say, “I’m in my days,” not as an excuse, but I do have to realize I am more sensitive when I’m in my menstrual cycle than when I am not, and that is different from female to female. For some females, it doesn’t happen. For me, it does, so, I need to be in tune with my emotions.

Fifty percent of interview participants agreed on a practice of maintaining a moderate demeanor during communication to reduce the perception of emotion and gender stereotypes. MSG10 said, “You have to really make sure that you’re not acting with emotion.” Describes as keeping an even emotional demeanor and remaining calm in the delivery of admonishment or praise to subordinates, MSG8 said:

I am able to communicate without having to yell, so I can just keep this same tone of voice and tell somebody that they screwed up, as screwed up can be, and they just need to go home and pack the bag because they’re no good for the Army. The same way that I can tell somebody, “You are doing an outstanding job.”

MSG1 provided another perspective:
Yes, I would say that when a woman is argumentative, I would just say she is seen as being uptight, not a team player, and especially if they don’t know what they’re talking about. Then that just wipes any credibility that they have out that they would discuss with you.

Describing a practice of oscillating displays of emotion, MSG11 recalled:

I learned not to be angry at a lot. Or be very defensive or take constructive criticism personally. Learning that, and I always say “taming the beast,” allowed me to be more open and participate. . . . No one wants to listen to an angry, screaming person all the time. That’s how I overcame it, just learning to release the beast and be able to know when to release around certain people when not to release.

Participants of both cases described confidence, timing, and moderating displays of emotion as elements of practices and gender-based moderators used by senior enlisted women in the U.S. Army. Verbal and nonverbal communication practices between the two cases provided distinct patterns of active communication.

Operations case: Standards enforcement. Interview participants from both cases described possessing a foundation of values and standards. Operations case participants focused on the enforcement of standards and agentic behaviors at a higher frequency than force sustainment case participants. Operations case participants also directed standards enforcement comments specifically to other women. MSG9 felt, “If females just uphold the standard, [and] have standards about themselves, eventually it pays off.” MSG12 also spoke directly to women and said, “Don’t not do something just because you think a male will do it for you.” While a participant of the force sustainment case, MSG3 succinctly captured in one narrative many of the standard enforcement points made by operations case participants. Recounting a field training story of mounting a 50-caliber machine on a truck and another time camouflaging large reefer vans, MSG3 remembered:
I had my female soldiers who [said] “I need help” and would like, curtsey. And the male soldiers ran right over to help. [I said,] “No! We are not doing this. Cut it out. You’re a soldier like everyone else.” That is why I say; “You got to cut out that female stuff. You can pick that [large camouflage net] up. Separate [the net] into pieces. You have to figure out how to get that stuff up there. Because when you start acting like that you become added weight to the mission, and that’s not fair to everyone. Put that female stuff aside, yeah.”

Specific to the enforcement of equal opportunity and sexual harassment standards, MSG1 encouraged others to act:

[If] you’re in an environment to say something, where you don’t feel threatened, then say something. Let them know you were offended or let them know that you don’t feel it’s appropriate, and then go and tell somebody else. Don’t just smile and let it go.

Operations case participants described engaging in agentic behavior advocating for themselves and others. Agentic behavior is not exclusive to one case, but it was described more often by operations participants, and the gender role expectation of communal behaviors was absent from the operations case. MSG12 recalled, “I have never shirked back from anything. It’s full force ahead. That is, I guess, the biggest thing I have done. I am not quiet, and I am a go-getter. Just go out there and do it.” Enduring a difficult climate, MSG9 said, “I was more of a voice for my subordinates both male and female soldiers, and because I had a voice, that was like no. I felt like [the toxic leadership] didn’t want me to be vocal.” As the senior enlisted advisor at the company level (50 to 120 people), MSG11 told her story of refusing to be silenced as the only woman leader at her level:

I was the only female First Sergeants out of all the First Sergeants in the unit it was like in meetings, and he would just come at me, and they would say just be quiet. No, I’m not going to be quiet and cannot just let him run over me.
In a similar display of agentic behavior, MSG12 expressed, “For me, my biggest thing was making my voice heard. I didn’t keep quiet. If I had something to say and it is relevant to the conversation, I made sure I said it.”

**Force sustainment case: Assimilation.** All Force sustainment participants engaged in nonverbal practices to demonstrate assimilation and ability to participate as members of a team. Attending military courses that awarded uniform badges, demonstrated work ethic, physical fitness, and distancing from stereotypical female behaviors are practices in greater use among the participants of the force sustainment case. Recalling practices of “[putting] the girl stuff aside” and using civilian education as moderators of gender-based barriers during her career, MSG3 said:

The other two aspects are trying to fit in because it is a man’s Army. It is a male-dominated environment, and when you are a minority, when we are in that situation as females, you don’t want to feel like you are deadweight.

As a female within the male culture of the U.S. Army, MSG6 wanted to “[make] sure that as a female, I am fit for the fight,” and she felt the need to distance herself from women that avoided field duty or deployments “so that the males wouldn’t see me as that, that perception of ‘they want to find a reason not to go to the field, or not to deploy’; I didn’t want that to be associated with me.”

MSG2 also desired a positive reputation and described her practice to:

Just follow through on things you know being a team member. Pulling my weight, following through on what I say I am going to do. Being relatively enjoyable to be around [light laughter], just being a steward of the profession of the NCO Corps, you know.

MSG10 shared her experience of contributing to the team, saying:
If we needed to run a range, I will run a range for you. If we need to go on fuel vehicles, I am going to do that. If we need to do maintenance, I’m going to do that. We need to get supplies; I’m not gonna go get somebody to help. By doing those things, I proved that I was capable.

Another nonverbal practice of communicating assimilation within the culture is by completing military courses that authorize a skill or occupation identifying badge for wear on the uniform as posited by MSG7: “If your MOS has a badge that sets you apart from all your peers, you need to do it. Because that is what is going to advance you. . . . Complete those harder tasks to put another badge on your chest.”

Finally, participants of the force sustainment case described practices to overcome and embrace fear when facing a change or a challenge within the masculine culture of the U.S. Army. As the first member of her family to join the military, MSG8 recalled her experience of becoming a soldier and said, “I think the biggest thing that I forced myself to overcome is fear of the unknown and somebody one time told me that I needed to be comfortable with being uncomfortable.” MSG10 shared the importance of:

always try it before you say no to it. I think females look at something that is very hard, is too heavy, or they think they know their physical limitations. Always push yourself to do it regardless of what is.

**Summary.** Interview participants provided several examples of practices and moderators of gender-based barriers. Among the most cited were communicating through the use of self-agency and nonverbal demonstrations of capability. Demonstrating competency to perform, maintaining standards, and the enforcement of standards build individual credibility and personal reputation.
**Subtheme: Establishing and maintaining credibility and reputation.**

Interview participants shared in the practice of building and protecting their credibility by listening, forming arguments, and considering the audience before speaking. As a strategy to strengthen a potential position or argument, MSG10 described the practice of forming an argument after hearing other opinions first: “I never try to speak first. Because I tried to use the strategy of, I want to know what people are thinking around me before I voice my opinion—not that my opinion would be changed.” In addition to the never speak first strategy, when time permitted, an argument could be backed with empirical data, which MSG10 said had the effect of “gradually earn[ing] [the] respect of those people around you.”

One common practice for establishing instant credibility and building a positive reputation was for interview participants to add artifacts, such as badges and unit or combat patches, to their uniforms. MSG9 remarked on the superficial judgment that takes place when meeting new colleagues and said, “Looking at this [uniform] and your tabs or lack thereof, and they’re putting you in a category not knowing that you are here because you’re the best of your CMF.”

MSG7 also said:

I would probably go to a lot more schools, the military schools and the harder military schools like Air Assault and EFMB [Expert Field Medical Badge]. Unfortunately, we are in an Army that looks at ribbons and badges, and that is what people really divvy you up on is your combat patch and how long you are in an organization.

To reduce the potential application of gender stereotypes that women are weak and pack more than men, some participants developed a practice to maintain their
reputation. The practice of packing light was a routine for MSG6 who stated, “As far as packing, after my first deployments like Iraq, Afghanistan, Kuwait, and, I think it was [Southeastern Europe] it was just a matter of packing light, packing what I needed.” MSG1 explained a gender-specific practice of protecting her reputation and ensured no one could say that she could not carry her gear. MSG1 said:

I have this thing that if you can’t carry it, don’t pack it. When I deploy, or I am moving out, if I can’t carry it, if that tough box is so heavy I can’t pick up, I don’t need it. Take something out. That might mean I have one more tough box or one more bag, but I need to be able to get my own stuff from the truck to wherever I live or wherever I’m staying.

**Operation case: Reputation.** Operations case participants provided little more on the topic of building credibility and provided no discussion relating to expected gender role practices, such as being communal. Reiterating the need for values and maintaining standards, MSG9 posited:

Your reputation precedes you. Individuals that know me, but I don’t know them, they know that [MSG9], she is about her business and I like that, and that didn’t happen overnight. Males will try you. They will try you to see what they can and cannot get. What they can and cannot get away with, and when the females uphold their core values and standards and uphold the Army values and just stick to the mission the standards of whatever that organization is they may not see the results right away. I didn’t see the results right away but eventually it pays off.

Consistency in upholding individual core values and U.S. Army standards over time was determined to be a contributing factor of participant’s selection for promotion over other women.

**Force sustainment case: Communal and respected.** Force sustainment case participants discussed their having a family and being involved with the community while also seeking respect in the workplace. Seventy-one percent of force sustainment
case participants planned families and discussed family demands, expectations, and the need for balancing work-family life. MSG7 said, “Have a family, but the Army still expects things. They expect combat effectiveness.” MSG6 sacrificed time with her family to take on high-operational tempo assignments that she loved:

I sacrificed my family numerous times, you know, and I don’t take pride in that for the Army. Here it is, now I’m learning balancing professional with your family [life]. At the same time, I wouldn’t want to change anything because all those experiences got me to where I am now.

Participants recalled practices for gaining the respect of peers and subordinates and the role of respect given the potential for sexual tension among peers. For example, MSG3 described one important means of building respect: “The best way you have to do it [earn respect] is to show that you are competent, and that’s how it’s done.” The combination of men and women working together presented challenges in terms of men being interested in the participants as sexual partners. MSG10 recalled the difficulty early on of asserting herself as a soldier and not a dating partner:

You are going to have that, “Oh, I want to date you. I want to.” This is almost as if you have to combat that amongst your peers. “Oh hey, I’m here just like you are to do a job. This isn’t Match.com. Let’s just do our job.”

In the end, MSG10 felt women needed to pick a reputation and believed there were only two possibilities: “You can either be known as a bitch or a whore. Those are the two things you can be known as, and you need to pick which one you’re going to be known as.”

Interview participants from the force sustainment case provided examples of communal practices aligning with gender role expectations. As one example, MSG3
found utility in the “girl stuff” in various situations saying, “Some of my girl qualities are really good for entertaining and for protocol and stuff like that.” Others accepted and held positions as Army SHARP representatives or became victim advocates. One participant described the experience as “life-changing . . . because of the encounters, the things I had to deal with and things I was exposed to.” Quick to volunteer to support the U.S. Army community, MSG8 recalled:

Even if they need a group study for something, I’ll do it. We need someone for the community like I’m in. The way I looked at it is, soldiers see that. A lot of the things I believe is not so much what you say as to what you do. Your presence says a lot when soldiers see or hear you were there.

Shaping perceptions of credibility during conversations and earning badges to display on the uniform were common practices for building a strong reputation by interview participants. More inclined to have planned a family, force sustainment participants commented on family-work balance and the gender role practice of being communal.

**Summary**

Responses across both cases consistently included recommendations for women to speak up, be heard, and demonstrate self-agency, in addition to assimilating to the male-dominated culture of the U.S. Army. Unlike the operations case participants, force sustainment case participants also spoke of family-work balance practices and, at times, of embracing their communal skills.
Obstacles of Integration

The third and final theme, obstacles of integration, linked to the final area of interest: integration. Interview participant responses generated the most coding related to a single interest area. Responses informed the two subthemes (a) maneuvering integration obstacles and (b) what men need to know. Subtheme findings include an initial denial by most participants of encountering gender-based bearers in the U.S. Army, moderators of the male-dominated culture, and coping techniques.

Integration

The uniting of men and women with the same rights and opportunities regardless of gender and acceptance of women as equals has yet to be attained in the U.S. Army. To moderate identified gender-based barriers of acceptance and full integration within the Army, women have engaged various practices and strategies to maneuver career obstacles related to integration. Moderating and coping behaviors are described in the subtheme of maneuvering integration obstacles, which is followed by interview participant recommendations of what men in the Army need to know about fully integrating women.

Subtheme: Maneuvering integration obstacles. All interview participants recalled multiple obstacles to integrating women into the male-dominated culture of the U.S. Army. To maneuver gender obstacles, women recalled various practices and strategies. Cross-case comparison provides a finding of discernable differences in practices identified by participants within the two cases. When asked about gender-based
obstacles, the initial reaction of 70% of the sustainment participants and 40% of operations participants was to deny experiencing any gender-based barriers in the U.S. Army. In many cases, after denying gender discrimination, sometimes in the same breath, participants described an act of gender discrimination. Other times, an example of discrimination followed in the next sentence or discussion.

After interview participants described their sequences of career assignments, the third semi-structured interview question (see Appendix A) asked about gender-based obstacles. The question asked, “From your experience, please describe any gender-based obstacle you experienced as an enlisted woman pursuing a career in the U.S. Army?” Many initial responses of participants related to denying experiences with gender-based obstacles, such as “I don’t think gender has really ever held me back” (MSG2) and “There were no obstacles. There were two times that I wanted to volunteer for a mission, and I was told I could not because I was a female” (MSG3). Later on in the same conversation, MSG3 said, “There are still a few men on the Infantry side, men that still think that we should be in the kitchen barefoot and pregnant.”

Some emphatically denied experiencing gender-based obstacles: “I would say absolutely not” (MSG5), while others claimed not to know or, at least, not having been concerned: “I don’t know if I’ve experienced that or just not focused on that.” (MSG6)

One participant, MSG8, admitted to a singular instance after a long pause: “I can’t really recall [any gender-based obstacle]. The only time—I wanted to be a First Sergeant for one of those [Field Artillery] batteries. They were like. ‘You can’t do that.’” Other
interview participants initially responded by recalling a single event. MSG12 felt “I really haven’t had any. It was really just that [one] time which, [it] really wasn’t an obstacle, it was a very crude individual that spoke anything that came to his mind.” After her initial denial of experiencing gender-based obstacles MSG9 stated, “Only thing I can really say is one assignment when. . .” MSG1 said, “The only obstacle I felt that I faced was. . .” and went on to recall multiple acts of discrimination, such as one time when conducting vehicle maintenance: “[Men] just automatically came over and said, ‘Move over. We’ll do it because you’re a girl.’” MSG1 also stated, “While I don’t want to say it is discriminatory, it is more just like the command becoming aware sometimes, they would catch themselves being discriminatory.” Consistent with the finding that participants experienced numerous obstacles when asked about experiencing any gender-based obstacles despite their initial denials, MSG11 said, “So, I have lots.”

Overall, interview participants experienced a variety of gender-based obstacles linked to the culture of the U.S. Army, individual gender role bias, and policies. Many participants identified the use of various coping strategies with the most often referenced practice of engaging with a mentor. Eighty percent of operations case participants indicated multiple obstacles when seeking or holding leadership positions, more often than the 57% of force sustainment case participants, that with one exception, indicated a single event or obstacle related to leadership positions. Sustainment case participants reported two predominant maneuver techniques after encountering integration.
obstacles—the practice of correcting a sexist behavior—and almost its opposite—the practice of assimilating or fitting in.

MSG7 described a practice checking someone who demonstrated sexist behavior and explained:

I have learned along the way it’s [sexual harassment] easy to handle. It’s easy to put somebody in their place. Number one, it’s easy because the Army doesn’t stand for it so even when it has been a senior leader at the top it is easy to check someone. . . . When I check you, it is easy because I think they realize the power kinda belongs to me. What I do with that complaint and it is vice versa, if I did it to a male soldier, it would be the same way. I really don’t think senior leaders get that.

When her male supervisors would cross the line of acceptable speech MSG4 recalled, “I said to my male counterpart commanders, ‘Sir lock it up.’” Correcting sexist behavior was mentioned at the junior levels as MSG11 described: “There is a lot of stuff that I had to overcome as far as barriers. Just the chauvinist, the pigness, the men like, ‘I am the man.’ ‘I don’t care if you’re the man we are all E4s wearing this rank.’”

Obstacles to the integration of women were found to emanate from the male-dominated culture with an emphasis on combat arms organizations. Assigned to a combat arms Brigade Combat Team (BCT), MSG1 felt the need to “overcome some of the demeanor when I was in the BCT just because they had to get more and more used to females being in their environment.” Another participant described a situation when deployed to Iraq: “The porta potty graffiti is that women are just MWR [morale, welfare, and recreation] in the Army. That is what we are looked at as. Not as good as. We are there for ‘recreation,’ so to speak.”
Participants also highlighted the lack of acceptance of women’s psychological abilities. As one example, MSG9 said, “I don’t think that I should have to alter my body to accommodate or be more accommodating to an environment because I’m in a combat arms position.” Participants shared some women, to reduce hygiene requirements (e.g., feminine products, water, and time), stop their menstrual cycle while deployed, some for up to 6 months. Supportive of other women with the physiological abilities and desires to join combat arms occupations, MSG9 said: “I don’t feel that I should have to take supplements to boost my muscle tissue or to stop my menstrual cycle.”

Discussing the 2016 DoD policy change to fully integrate women in the U.S. Army, MSG7 stated: “Now we have to teach a whole group, a whole population that has never been exposed to females, how to treat a female.” Obstacles related to the role of motherhood for women in the Army contributed to many participant comments related to experiences faced when desiring to have or after having children. After having a child and wanting to nurse, one participant faced backlash for pumping at work. She recalled:

I worked in a cubicle and I would pump. I hung a shower curtain on the door of my cubicle, and people knew that when it was closed that that’s what I was doing. I was pumping. “Just come back in a second, or you can talk to me through the shower curtain, no problem.” I could still do my job while I was doing it. People saw it as a weakness: “Why is she pumping right there? She needs to go to the bathroom to do that.”

Explaining the impact of policies that only affect women desiring to have families and the potential delays in the promotion of women due to pregnancy and the associated 20 months of limited duty or recovery, MSG10 recalled:

When I bring this [20-month profile] up to people or [people say], “You decided to have a child.” What? Did you have to wait to have a child to get promoted?
You have five kids over here because you have your wife. And my husband can’t have kids for me.”

Beyond the combat arms cultural challenges of integrating women, many women also reported group and individual behaviors of bias and discrimination. As a platoon Sergeant augmented by National Guard soldiers with a different mentality during a deployment, MSG6 described, “things were a challenge, because I was female.” As a First Sergeant for the first time, MSG9 said, “My commander, he just had this demeanor about him that I’m not listening to nothing you have to say, but with the males, he was completely the opposite.” Another participant described bias encountered for attempting to assimilate (i.e., acting more like men):

When [women] are competent and confident in doing it ourselves, there is always a backlash to that. “Oh, she thinks that she’s better than everybody or she thinks this or she thinks that.” It’s hard to overcome to because you’re trying to be a member of the team, but in the same regard to trying to be an equal member of the team, and some men find that off-putting that you disregarded their help.

Interview participant comments described several hostile work environments that might meet the definition of sexual harassment, without labeling the situation as sexual harassment. Commenting plainly, MSG7 said, “Sexual harassment, it happens. We are a workforce. We are in the Army. It happens.” Another interview participant shared her experience of sexual harassment:

I had a Sergeant Major on my first day [as a Master Sergeant]. He is like, “Hey, I’m writing this email. Can you read it real fast just to make sure that it sounds right?” That is not uncommon; we do that all the time. A second set of eyes doesn’t really matter who. Roger Sergeant Major, he said, “Here come on around and read it.” And so, I went around his desk, and he said, “Here you can sit right here,” and he patted his lap.
In response to the many integration obstacles encountered by interview respondents, all participants described employing practices or strategies as coping mechanisms. The most common coping strategy, referenced or recommended by more than 90% of the interview participants, was to have a mentor, such as “Just do you, view any mistakes as a learning experience get back up, keep going; a mentor will help you with that” (MSG2); “Learn from other people’s mistakes” (MSG11); “Knowing and having someone [women] can talk to. Find a mentor” (MSG1); and “You have to pick somebody, and if it motivates you, it doesn’t matter, pick a female or male, someone that is on your own career path. We call them mentors” (MSG7). No matter the rank of the soldier, MSG2 recommended having a mentor and said, “I didn’t even know that I needed [a mentor]. When I discovered him. I’ve been very lucky because I have had leaders take an active role tell me.”

**Operations case: Behavior and policy obstacles.** Eighty percent of operational case participants acknowledged integration obstacles related to leadership positions. As the only female First Sergeant in her unit, MSG11 felt she received different treatment than men: “The Sergeant Major was always sharpshooting me.” Having a similar experience, MSG9 said, “I just truly believe that because I was a female First Sergeant with a voice and completely by the standard, by the book. It just made things harder.” Another participant, MSG4, recalled an interview with a Battalion Sergeant Major for a leadership position as a First Sergeant. With a female Master Sergeant in the room (presumably as a witness), she explained, “[The Sergeant Major] was asking me
inappropriate questions. Why are you not married? Are you a lesbian?” Such questions
were in violation of the Don’t Ask, Don’t Tell policy in place at the time. MSG4
experienced another obstacle when she arrived at a new unit:

I had to fight to stay in the [new] organization that did not want to me. . . . My
unit was already getting the paperwork ready, led by a female Master Sergeant,
believe it or not, to redirect me to FORSCOM because they didn’t want me to
hold that [leadership] position.

Another participant who reported coordinating a leadership position at a new unit, MSG1,
recalled how things changed upon her arrival:

I was in correspondence with the Branch Sergeant Major and brigade at the time
when he told me I was going to a First Sergeant position. [The receiving unit
Sergeant Major] had moved on to fill a shortfall [on post] and the [new receiving
brigade]. Sergeant Major then said, “No, you’re going into operations.” It’s like,
okay. At that point in time, I did feel it was a little awkwardness because the
person they put in the First Sergeant position was junior to me. As a matter fact,
he had not even been pinned Master Sergeant.

In addition to employing coping strategies when faced with integration obstacles,
interview participants also chose avoidance of known hostile environments rather than
enduring discrimination. For example, MSG12 reenlisted for a new duty station to depart
a hostile environment. She described how she “was one of the ones that said, ‘Get me out
of here.’” MSG4 avoided a leadership position given the hostile environment it would
require, explaining, “Why would I argue with someone that I know already has biases
and stereotypes and is asking inappropriate questions?”

Operations case participants also described the combination of leadership, race,
and gender as sources of discrimination obstacles. MSG9 said:
I have been perceived just by my photo as a “B.” B-I-T-C-H and my skin color and “Oh yes, she’s really a ‘B.’” It is really unfortunate, and you may have a male that has the same authoritative look on his photo and “Oh, he is sharp.”

MSG4, who holds a racial minority identity, recalled, “I seen great leaders. White leaders, great leaders, Black leaders. I’ve seen both, but I’ve also seen shitbags in both of them that have very ingrained racist feelings…”

**Force sustainment case: Endure and assimilate.** Analysis of cross-case findings showed force sustainment interview responses differed from operations participants’ responses in terms of gender-based barrier maneuver practices. Sustainment participants reported enduring obstacles without avoidance and chose to assimilate to the culture rather than use overt agentic behavior. Differing from the operational case participant’s enforcement of standards to increase credibility as a moderating practice, sustainment participants recalled a practice of checking someone. When sustainment participants experienced acts of sexual harassment, 40% reported immediately checking the behavior with the offender. For example, MSG2 described, “Instances where I couldn’t believe you said that. Now let me tell you why what you said was wrong.” Others described the effectiveness of checking others senior in rank to them. After a senior enlisted leader engaged in an act of sexual harassment, MSG10 stated:

> I got up and walked over, shut the door, and stayed in. I told him that I don’t care who you are or if you hired me or if you fire me after I tell you this today, but this is unacceptable.

MSG7 explained the power a woman can yield with a sexual complaint: “Some [senior leaders] just choose to ignore [the threat] because they get away with it, until they
find the one that will check them. I’ve learned along the way that if you check somebody, it will stop.”

In addition to frequent references to assimilation made within both cases, almost 60% of sustainment case participants looked to fit in, while over 40% felt they needed to prove themselves. Describing assimilation, one of the participants identified effective moderators of gender-based obstacles, MSG3 said:

The other two aspects are trying to fit in because it’s a man’s Army. It is male-dominated environment, and when you are a minority when we are in that situation as females, you don’t want to feel like you’re deadweight. Then when you are in charge in a male-dominated Army, you have to prove yourself.

MSG2 shared the view that assimilation was important. She said, “I had to fit in, if you will, and I couldn’t because growing up—I’m very shy, and very shy, that’s not going to work in an Armored Brigade Combat Team. You can’t be the shy little wallflower.” Also advocating assimilation, MSG3 recommended that women “be as good as the boys. So that you are not looked at as something different.” This sentiment was also echoed by MSG10, who expressed: “[It] always seems like you are proving yourself as a female.”

**Summary.** Interview participants identified various obstacles to the integration of women in the U.S. Army. Women recalled the most common coping practice contributing to their resiliency as having and engaging with mentors. Moderating behaviors to integration obstacles included descriptions of self-agency, avoidance, assimilation, and endurance. Shifting from the moderating practices of women to their thoughts about men in the Army, when specifically asked (see Appendix A) what men
need to understand about integrating women into the Army, interview participants provided recommended behaviors to improve their integration.

**Subtheme: What men need to know.** Independent of each participant’s beliefs in the existence of gender-based barriers or identifiable moderating practices, all interview participants identified recommended behaviors to share with men in the U.S. Army. The cross-case commonality in response to what men need to know was found in two of the eight topics and is presented in Table 4.12.

Table 4.12

*What Men Need to Know*

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Number of Responses</th>
<th>Participants</th>
<th></th>
<th></th>
<th>Total Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treat women the same as men, apply one standard</td>
<td>12</td>
<td>1</td>
<td>6</td>
<td></td>
<td>58%</td>
</tr>
<tr>
<td>Take time to learn about women</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>Stop (sexually) offensive language [be professional]</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td></td>
<td>42%</td>
</tr>
<tr>
<td>Need to fully integrate women</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td></td>
<td>33%</td>
</tr>
<tr>
<td>Give women an opportunity to perform</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td></td>
<td>33%</td>
</tr>
<tr>
<td>Need leaders to change the conversation and status quo</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>Find a female mentor</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>Need to view women as comrades, not family members</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td></td>
<td>8%</td>
</tr>
</tbody>
</table>

A unified message to men is to take time to learn about women and increase professional behavior by stopping the use of sexually offensive language. All other categories of recommended behavior included responses predominately generated from members of one case or the other. Operational case participants requested integration and
opportunities to perform. Force sustainment case participants focused on the desire for men to treat men and women the same in the application of one standard.

*Cross-case commonality.* The typical findings between both cases were that women believe men should take time to learn about them, while also stopping the use of sexually offensive language. Men’s lack of knowledge about women was highlighted in one participant’s report of an experience with a former combat engineer who thought it was essential to know a woman’s monthly cycle. MSG2 recalled arriving at a new duty station where her squad leader requested knowing when she is having her cycle:

> He thought that he was perfectly justified in asking what he was asking. And in his mind, and as he told me, “This way I will know why you’re being a bitch.” I told him it’s actually none of his business, and just assume I’m always a bitch.

MSG3 acknowledged the responsibilities women have and the need to care for their bodies, sharing the view that “Women are going to have monthly cycles, which adjusts their hormone levels; it adjusts attitudes; and it has to be dealt with.” The lack of understanding of women demonstrated by men was echoed by MSG10 who said, “It seems like there’s no compassion there at all because [the men] never served with females.” MSG1 suggested men need “to talk with [women] and learn each other’s battle rhythm, learn each other’s weaknesses, strengths and weaknesses.” MSG3 suggested men need to “take time to understand [women] as you would do any soldier. Take time to understand them. Just like you would learn and take time to understand a soldier with a different cultural background.” MSG9 offered the following advice to men working with women: “Assess each individual, individually. We are not one and the same. Each is an individual, not one and the same.”
Participants from both cases shared the recommendation that men stop the use of offensive and sexual language. One interview participant stated, “Males shouldn’t be doing inappropriate jokes.” When men want to make a point, it does not have to be sexually offensive. MSG7 explained, “Some of the stuff I’ve heard online [in units], is, number one, just sexually offensive. You can get your point across, but we need to tailor the message.” Another participant requested men keep their “mom and daughters, your wives in mind before commenting.” Being treated with dignity and respect as women, just as any man in the U.S. Army, was a common finding in responses and references to the women in men’s lives. MSG7 also stated:

[Women in the Army] are not your sister. They are your sisters in combat. That is exactly what they should be, but they are part of the team and once you treat them like a team that is where the love, if you will, for the soldier will come in.

Some participants expressed advice to men in the U.S. Army to think of the respectful interaction they have with other women in their life whom they know (e.g., wives, daughters, sisters). According to one participant:

Its simple things that females have to deal with on a daily basis, so my advice to [men] is before they open their mouth in response to a question. Would be to think of their daughter their wife or their mother and how you would expect them to be treated or spoken to. Would you tell your wife it’s your fault you decided to have a baby? If I was in the civilian sector and pregnancy kept me from a promotion that is a lawsuit and if I was in the civilian sector and someone told me to just decide to do my job or be a mom. So, I would tell men to really think about those three people before they open their mouth before they respond to a female’s question in the Army.

MSG11 advised men to follow the recommendation of a senior officer to:

Treat [women in the Army] like they are your mother, your brother, your sister, your auntie. You know part of your family. You know you treat your family with
respect. Treat the females with respect that you work with the respect you treat your fellow male counterparts with.

Other participants felt that some men miss the point of the respect given to family members and visualize women in the Army as their sisters and daughters. MSG7 commented on the misused analogy of how family members are treated with respect and said:

What I don’t expect a leader to do is, that you liken [women in the Army] to your daughter, or your wife, or your sister. . . . You don’t have to ever mention that “You’re like my sister or you’re like my daughter” because that’s what I hear a lot of them saying.”

*Operations case: Fully integrate.* Operational case participants unanimously agreed on the need to fully integrate women in the U.S. Army and provide women with opportunities to perform. One participant commented on the gender label application to various accomplishments, saying, “I am just tired with the ‘first female this.’ I’m tired. I’m done. Let’s reintegrate.” MSG4 echoed the challenges with gender labels and said, “We should embrace truly the soldier concept. If we are going to say we are all soldiers, we need to embrace it.” MSG11 also said:

It should be—I don’t have to look like a man or talk like a man to be accepted. You should accept me for what I am. If I can carry my weight or I can do everything that you can do, I should be part of the team regardless of my gender.

Questioning why the integration of women is not as straightforward as the integration of transgendered soldiers in the U.S. Army, MSG4 said, “We have transgender in the military right? We’ve pushed that, so we have done that for the transgender community. Then for women, why haven’t we done that with gender?”
Operational case participants also linked the complete integration of women with comments about giving women an opportunity to perform. Concerned over existing gender bias in the culture of the U.S. Army, MSG12 recommended that men not “rule a female out from any job just because it’s typically done by a male.” Interview participants shared some women are just as capable as men and can and want to do the job. For example, MSG9 said:

Because there is a woman that wants to be in combat arms the standard needs to be the same. She’s going to be expected to pull her weight. If that is done and enforced, it would be easier for the males. If the males were told or trained or briefed that these females are coming in, nothing can change, you just need to know it is a soldier.

MSG1 recommended that men:

Talk with [women] and learn each other’s battle rhythm, learn each other’s strengths and weaknesses learn how to make them balance. That is important especially when you are peer-to-peer. How can we run a section? Knowing their strengths and weaknesses we can both achieve, overcome, and get the best results.

Participant comments in support of providing an opportunity for women also included recommendations to reduce the occurrence of benevolent sexism. The problem of doing work for women when they are fully capable was highlighted by MSG1, who said, “She can [pull her weight]. You are just not used to seeing her, having a female in your section and working with females. Give her a chance to prove herself.” While benevolent sexism is detrimental to women, some women may use it to their advantage to avoid work. For example, MSG9 said:

You have those leaders, both seniors and juniors, that are really quick to help a female, and I have never used that to my advantage because I didn’t want to be looked upon as always needing a male’s help. After so long you hear their stories,
“She is always doing this, or she always needs a male to help her out,” and sometimes those come from the females.

Recounting a discussion with her soldiers of what to do when they encounter a peer acting helpless, MSG11 said:

Even her menstrual cycle is not going to hinder her from doing work. So, don’t let that be a deterrent factor or the helpless factor for a female not doing it. I say if the female asked for help, help them, but if you just go over, then she expects you to do it every time. They were not working together as a team.

Force sustainment case: Same treatment. Operations case participants desired to have equal opportunities as men, while force sustainment case participants commented more specifically on the desire for equal treatment or for women to be treated the same as men. As women are soldiers, MSG5 recommended men “don’t treat [women] any differently than they would treat their males.” MSG8 also stated: “When you treat soldiers the same across the board you get more respect; just listen to the soldiers to understand that all the time they are not whining.” Supporting the message of treating women in the U.S. Army the same as men, MSG2 stated that men should:

Just treat them like anybody else. Don’t coddle them, don’t carry heavy stuff for them. “Oh, you girly, let me carry it for you.” Treat them like an equal. I am not saying treat them like a man. It contradicts each other but don’t give them special treatment.

Echoing an Army slogan of the past “Be all that you can be,” MSG6 recommend men:

Make [women in the Army] the best that they can be. That’s it, just like if it was a male if they see something as a Platoon Sergeant or as a squad leader and you see something in that individual soldier, look at that person as a soldier not as a gender as a soldier.

When asked by men what they need to do with female soldiers, MSG7 stated that her response is:
What do you mean? I don’t even think that a female needs to be sectioned off in a tent. She may need her own bathing area, which can be put up with two ponchos and some string, and her own dressing area. I have benefited from really an organization, my first organization; we slept wherever everybody else slept. There wasn’t even a poncho liner. We slept in the same area. We ate together. You don’t have to section off [women].

Demanding the same treatment as that of men, MSG8 said: “I do the same thing that everybody else is doing.” Countering the gender stereotype that women are not physically as capable as men, one participant, MSG5, also requested to train women the same as men. She explained, “There’s a lot of females out there that will outdo males in PT, weapons, ruck marching. They can out PT them, out ruck them.” MSG2 also requested the same treatment for women as that given to men, but when asked to provide advice to men in the U.S. Army, said, “Always have a witness when you are talking to a female soldier. It sounds horrible, but it’s true.” MSG8 described the impact of how women feel when treated differently from men in the conduct of meetings. When leaders only meet with women when there is a witness, MSG8 said:

You don’t want to make the females feel like, “Oh, you have to leave the door open.” . . . It’s okay for males to come up to leadership for counseling but then when it is a female, you cannot do that by yourself, or, “Where is your battle buddy?”

Finally, participants recommended men seek the advice of other senior women in the Army. MSG2 recommended:

If you have female soldiers, especially privates that don’t know anything, find a female that’s been in for a minute. . . . Seek out your senior female NCOs for any of those tips and tricks that we learned usually through trial and error.

Participants expressed a willingness to talk and share information with men, but they do not want men to send their female soldiers to them. One participant recalled men
would send all their females to her instead of working issues themselves and her response to the men was, “Hey dude, I got shit to do, solve this on your own.”

Summary

This section focused on the theme of obstacles of integration and the moderators of gender-based barriers enlisted women selected for promotion to Sergeant Major use to support their integration in the U.S. Army. Findings included the common practice among both cases of having and engaging mentors as a coping strategy. The findings of cross-case differences included the use of overt agentic behavior and the practice of avoiding hostile environments within the operations case and the enduring of obstacles and assimilating to the culture by the participants of the force sustainment case. Coded response findings identified the most common behaviors recalled by participants as effective moderators of gender barriers. To maneuver integration obstacles, three categories were identified as most effective.

Most Effective Moderators

Participant responses provided metrics of analysis to identify the most effective moderators of gender-based barriers. The first was a count of related responses describing a moderator. The second was the participation rate within each case of behaviors identified as moderators of gender-based barriers. The cross-case commonality of moderators, presented in Table 4.13, was observed in all three major categories, including (a) assimilate to the culture, (b) education, and (c) communicating agency.
Interview participant responses linked to education are presented within the first theme of career planning, but not as a cogent independent finding. Findings presented in Table 4.13

*Most Effective Moderators*

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Number of Responses</th>
<th>Participants Operations</th>
<th>Participants Sustainment</th>
<th>Total Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assimilate to the Culture</td>
<td>71</td>
<td>5</td>
<td>7</td>
<td>100%</td>
</tr>
<tr>
<td>Education</td>
<td>41</td>
<td>5</td>
<td>6</td>
<td>91.7%</td>
</tr>
<tr>
<td>Military Education</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>42%</td>
</tr>
<tr>
<td>Civilian Education</td>
<td>23</td>
<td>4</td>
<td>4</td>
<td>66%</td>
</tr>
<tr>
<td>Personal Learning</td>
<td>10</td>
<td>1</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Communicating Agency</td>
<td>66</td>
<td>5</td>
<td>5</td>
<td>83%</td>
</tr>
</tbody>
</table>

the second theme, adapting communication for the U.S. Army culture, addressed the moderators of assimilation and communicating agency. How and why the interview participants used education as a moderator is addressed in the findings that follow.  

Multiple interview participants provided remarks related to how assessments were made through the lens of each individual’s CMF during career planning. According to MSG9, a web-based planning tool is available for soldiers to assess what others are doing. She recalled:

I use the Army Career Tracker a lot for one, within it they have a pie chart and who has what degrees and the percentages, and I knew early on that a lot of my peers did not have bachelor’s degree. So, I got a bachelor’s degree.

MSG9 also used the tool to identify the most career-enhancing advanced degree for her. Another participant echoed the career enhancing effect of education She reported:

Civilian education, once the boards stop looking for appointments and certain other things that we have in common, civilian education is not mandated on the
enlisted side. And they don’t give you time for it. You have to make time for it [civilian education]. I think that set me apart from my peers.

Multiple participants provided responses recommending civilian education for all soldiers and as a specific career enhancer for women. Related comments included “For the career progression education and I push it. To my female soldiers and to all my soldiers, yes, but more importantly to my female soldiers” (MSG3); “Do the education piece” (MSG12); “I would do my civilian education a lot quicker” (MSG7); and “I do believe I am a proponent and a champion for education” (MSG4). When asked during the interview “What advice would you give to women aspiring to make Sergeant Major in the Army?” MSG12 recalled delays in the completion of her civilian education and remarked, “I would go back and change that. I would have my degree right now.”

Another participant used civilian education to augment a lack of leadership assignments and experience. Identifying education as a gender-based practice or strategy to increase women’s potential for promotion in the U.S. Army, MSG3 said, “Just education, civilian education. I had a knack for the areas that I lacked because I didn’t have a lot of leadership positions because of the positions I held.”

Evaluation of individual ERBs provided by participants and comments made during interviews informed the levels of education represented within each case. Table 4.14 provides a cross-case comparison of degree attainment and the finding of no apparent imbalance between participants in the two cases.
Summary

The frequency of coded interview segments and interview responses that clearly identified a most effective moderator of gender-based barriers combined to identify the behavior of assimilation as most effective. All interview participants recalled assimilation behaviors with education a close second with only one participant not highlighting education as a moderator. Demonstrated through personal example that education was an effective moderator 75% attained an undergraduate degree and many perused advanced degrees. Finally, communicating self-agency was evaluated to be the third most effective moderator in use or recommended for women to moderate gender-based barriers.

Integrated Analysis

The research questions, which include the final mixed methods question designed to understand how moderators are used and the variations by race, rank, and functional area, overlap elements of previous DoD and U.S. Army research. The prohibition of repetitive research and complete exclusion of outside organization to conduct any gender-

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number of Participants</th>
<th>Operations Representation</th>
<th>Sustainment Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiated PhD</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(17%)</td>
<td>(20%)</td>
<td>(14%)</td>
</tr>
<tr>
<td>Master’s</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(33%)</td>
<td>(20%)</td>
<td>(43%)</td>
</tr>
<tr>
<td>Baccalaureate or more</td>
<td>9</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(75%)</td>
<td>(80%)</td>
<td>(72%)</td>
</tr>
<tr>
<td>Associate or more</td>
<td>12</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

Note. Column percentages appear in parentheses below observed frequencies.
sensitive surveys or interviews drove a mixed methods approach to maintain the integrity of the research questions. Integration began with the research design and continued through the quantitative and qualitative findings process. Integration of the case study and mixed methods design introduced the potential to confuse the explanatory case study design with mixed methods explanatory design. This study design included the explanatory case study design as described by Yin (2018) to explain how and why moderators of gender-based barriers are used. The study also incorporated the mixed methods core design as explained by Plano Clark and Ivankova (2016) of convergent design. The convergent design of quantitative analysis results combined with qualitative interview analysis aligns the quantitative evidence of gender barriers encountered between groups of women and the qualitative moderators described by participants during interviews.

An iterative process of integration influenced elements of the qualitative evidence collection and analysis through this section of analysis and findings. An initial quantitative analysis provided evidence of differentiated gender-based barriers based on race/ethnicity and rank experienced by women in the U.S. Army. The quantitative evidence contributed to the alteration of semi-structured follow-up prompts. The most common format alteration to prompts included an inquiry of when an event occurred and its duration. Multiple sources of evidence and analysis converge in the presentation of integrated findings.
Convergent integration of previous analysis, data sources, and the additional data analysis potential within the coded transcripts adds to the understanding of how moderators are used and describes variations by race, rank, and functional area. The independent quantitative and qualitative analysis provide complementary findings of significance and patterns that combine to provide a more complete” picture than when presented independently. The integrated findings are presented for the two most effective moderators. Only additional findings that benefit from the complementary integration of multiple sources are presented.

**Integrated Findings**

The strength of race/ethnicity and rank analysis within quantitative results complement the qualitative analysis strengths within the findings associated with the functional areas and themes. The convergent integration of quantitative findings and interview results expands on the findings of the two most effective moderators, previously identified as (a) assimilation to the culture and (b) education. Assimilation to the culture includes the topics of (a) denial, (b) sexism, and (c) reenlistment, whereas education consists of race/ethnicity analysis of integrated interview participant responses and ERB data.

**Assimilation**

The most effective moderator of gender-based barriers identified by coded segments of interview transcripts is assimilation to the culture of the U.S. Army. Lived experiences and behaviors of the interview participants contributing to assimilation to
increase acceptance, participation, and integration contribute to the assessment. Beyond the previous findings, convergent integration of data enhanced the results associated with assimilation. On the topic of denial, reported trends of sexism and the initial denial of gender-based barriers of interview participants between races/ethnicities and the two cases are compared. For reenlistment, the quantitative survey results of intent by rank and race are combined and compared with interview responses and 2017 population representation data. Finally, on the topic of sexism, interview statements directed at men and women intended to combat benevolent sexism are compared.

**Denial.** Previously analyzed 2016 WGRS responses provided statistically significant evidence that race contributed to the higher rate of hostile work environment, gender discrimination, sexual hostile work environment, and sexual military equal opportunity experienced by nonminority women over minority women. Interview responses by race did not align with WGRS responses. Nonminority women made statements of denial of discrimination at twice the rate of minority women. Three out of four nonminority women initially denied any experience of gender-based discrimination (75%), while three out of eight of minority participants (37%) interviewed made a statement of denial of gender-based discrimination.

Findings also include that the three minority participants who denied any experience of gender-based discrimination constituted 75% of the minority participants within the force sustainment case. The fourth minority participant in the force sustainment case said, “I have learned in the Army, it doesn’t matter. Sexual harassment
and sexual assault happens at every level.” Conversely, all four minority women, composing 80% of the operations case, recalled experiencing gender-based discrimination. One participant put it bluntly, “[I] have been sexually harassed.” Table 4.15 shows a cross-case comparison of gender-based discrimination denials by case aligned with WGRS response analysis. The WGRS finding of statistical significance of race in the greater than expected rate of gender discrimination reported by nonminority women, in the pay grade of E5-E9, contradicts the initial denial of nonminority interview participants at twice the rate of minority women denials.

Table 4.15

Gender Discrimination Denial

<table>
<thead>
<tr>
<th>Experienced</th>
<th>Gender Discrimination Denial Responses</th>
<th>Force Sustainment Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority</td>
<td>E1-E4 E5-E9</td>
<td>MSG3 initially denied, “There were no obstacles [experienced].”</td>
</tr>
<tr>
<td></td>
<td>268 511</td>
<td>MSG8 after a long pause stated, “I can’t really recall [any gender-based obstacle].”</td>
</tr>
<tr>
<td></td>
<td>(-5.6) (0.3)</td>
<td></td>
</tr>
<tr>
<td>Nonminority</td>
<td>MSG12 “I really haven’t had any [gender-based obstacles].”</td>
<td></td>
</tr>
<tr>
<td>E1-E4 E5-E9</td>
<td>202 278</td>
<td>MSG2 “I didn’t experience any gender-based issues with my career nothing that wasn’t too major.”</td>
</tr>
<tr>
<td></td>
<td>(1.6) (4.7)</td>
<td>MSG5 said, “I would say absolutely not [to experiencing gender-based obstacles].”</td>
</tr>
</tbody>
</table>

Note. Adjusted residuals appear in parentheses below observed frequencies.

A total of 49 coded interview response segments related to gender-based discrimination and sexual harassment. All eight minority interview participants
contributed to 88% of the coded segments, and, two of the four nonminority interview participants provided the remaining 12% (six coded segments) of the responses related to discrimination and sexual harassment.

**Sexism.** Sexual discrimination findings within all three measured datasets from the WGRS indicated a higher experience of discrimination and gender-based barriers among nonminority women. Figure 4.4 shows the combined findings of all three areas of sexual discrimination in a comparison of grade and race. The findings indicated nonminority women reported a higher rate of experience in all three areas over minority women.

![Figure 4.4](image)

*Figure 4.4. Frequency of workplace and gender relations survey findings. Adapted from “2016 Workplace and gender relations survey of active duty members: Overview report [Dataset] (Report No. 2016-050)” by Office of People Analytics (2017).*
Except for the category sex-based military equal opportunity violations, representational presentation of occurrence in Figure 4.4 indicates a decreased occurrence within the nonminority senior grade participants in the survey. Conversely, except for sexually hostile work environment, minority women in senior grades increased in representational occurrence. ERBs and interview responses did not indicate that any minority women interview participants held SHARP positions.

**Sexual Harassment / Assault Response and Prevention Program.** Interview participants stated that they volunteered for SHARP positions to differentiate themselves from their peers. Interview responses and a review of available ERBs revealed that six women (50%) attended the SHARP course. Two of the women also served in SHARP representative positions. Table 4.16 is a collection of military courses attended by the interview participants. In all three examples, nonminority interview participants attended the SHARP, Equal Opportunity, and Master Resiliency courses at a higher representative percentage than minority participants.

Table 4.16

*Military Course Completion by Race*

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Number of Participants</th>
<th>Minority Participation</th>
<th>Nonminority Participation</th>
<th>Total Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHARP Course</td>
<td>6</td>
<td>3 – 38%</td>
<td>3 – 75%</td>
<td>50%</td>
</tr>
<tr>
<td>SHARP Representative</td>
<td>2</td>
<td>0 – 0%</td>
<td>2 – 50%</td>
<td>17%</td>
</tr>
<tr>
<td>Equal Opportunity Course</td>
<td>5</td>
<td>3 – 38%</td>
<td>2 – 50%</td>
<td>42%</td>
</tr>
<tr>
<td>Master Resiliency Course</td>
<td>5</td>
<td>3 – 38%</td>
<td>2 – 50%</td>
<td>42%</td>
</tr>
</tbody>
</table>

All nonminority participants completed one of the three courses and 75% completed two of the courses. Further, Table 4.17 portrays a cross-case finding adding
that the nonminority participants who assumed SHARP representative positions are all sustainment case participants.

Table 4.17

Military Courses Cross-Case

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Number of Participants</th>
<th>Operations Participation</th>
<th>Sustainment Participation</th>
<th>Total Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHARP Course</td>
<td>6</td>
<td>2 – 40%</td>
<td>4 – 57%</td>
<td>50%</td>
</tr>
<tr>
<td>SHARP Representative</td>
<td>2</td>
<td>0 – 0%</td>
<td>2 – 29%</td>
<td>17%</td>
</tr>
<tr>
<td>Equal Opportunity Course</td>
<td>5</td>
<td>3 – 60%</td>
<td>2 – 29%</td>
<td>42%</td>
</tr>
<tr>
<td>Master Resiliency Course</td>
<td>5</td>
<td>3 – 60%</td>
<td>2 – 29%</td>
<td>42%</td>
</tr>
</tbody>
</table>

In combination, minority and operations participants completed the SHARP course at a lower rate than nonminority and sustainment case participants. While operations case participants lagged in attendance in the SHARP course, attendance was twice the representational percentage of sustainment case participants in the equal opportunity and master resiliency courses.

Failing to acculturate. Participants from both cases recalled conversations with men and women who intended to change the behavior of women exploiting their gender to avoid work tasks. Efforts to inform men of the available process and approaches were also shared. Operations case participants described women’s use of their sexuality as a technique to avoid tasks. For example, MSG11 said: “[Women] use our ‘persuasive female powers,’ as they say, to get over on men. I always said ‘the blonde effect’: ‘Oh I can’t do that. I need your help.’” To counteract a bias toward working with men, MSG1 told men who did not want to work with women to “give her a chance to prove herself.”
The same participant went on to say, “Sometimes you had some females who counteracted that and played ‘pretty flower.’”

MSG9 advised men to make individual assessments of assimilation of women accomplishing the mission and said men need to “be able to separate the ones [women] that are trying to go the easy route or use their gender to get an advantage.” MSG1 recalled demonstrating the ability of women to assimilate and said, “I can be out there working and first show female soldiers can do these things, and ‘You shouldn’t be allowing men to think like this and stop being the pretty flower and let’s go!’” In one example to avoid the perception of special treatment, MSG2 dismissed the addition of specialized feminine products to the small Post Exchange store during deployment and said, “I was very adamant, they [women] can order that crap off Amazon.”

Operations case participants more often than force sustainment case participants admonished women in the U.S. Army who did not assimilate into the culture and used sexuality to avoid work tasks. Participants advised men to assess the assimilation of each woman on an individual basis and avoid the application of general gender bias against women. In one example, a participant recalled combating gender bias by personally demonstrating the ability of women to perform tasks. Participant responses demonstrated a desire for an individual assessment of assimilation and dismay of women who use sexuality to avoid work.

**Summary.** The seemingly disparate findings of gender discrimination, military course attendance, and use of sexuality in combination begin to expose the use of military
courses as a moderator of gender-based barriers. As the most likely target of
discrimination found in responses to the WGRS, nonminority interview participants
attended SHARP at twice the rate of minority women. Further, only nonminority women
volunteered for SHARP duty positions. Minority interview participants, less likely to
encounter discrimination at the same rate as minority women, did not hold a position as a
SHARP and condemned the use of sexuality by women to avoid work tasks.

**Intention to Reenlist**

Evaluating the intention of participants to reenlist (assuming survey respondents
could remain on active duty), a single question using a 5-point Likert scale was used to
measure how likely the respondent would be to do so (OPA, 2017). Only the electronic
long-form survey included the question and a nonresponse rate of 0.5% ($n = 31$). Missing
data were excluded from analysis. Survey responses ($n = 6,716$) indicated a 61% ($n =
4,093$) rate of respondents as likely to reenlist. The four categorical groups composed of
rank and rank combinations remained consistent from previously described quantitative
analysis using the Kruskal-Willis tests. Posthoc analysis of the statistically significant
Kruskal-Wallis H test result included the use of Mann-Whitney $U$ tests. Posthoc analysis
was run to determine if there were differences in reported intention to reenlist isolated by
race and rank independently. SPSS version 25.0 software was used to run the Kruskal-
Wallis H test and subsequent Mann-Whitney $U$ tests, at a statistical significance of $p \leq
0.05$. 
Kruskal-Wallis H test. A Kruskal-Wallis H test was run in SPSS to determine if there were differences in reported intention to reenlist between four groups of U.S. Army women: minority, E1-E4 \( (n = 1,822) \); minority, E5-E9 \( (n = 2,711) \); nonminority, E1-E4 \( (n = 969) \); and nonminority, E5-E9 \( (n = 1,214) \). Distributions of race and rank scores were similar for all groups, as assessed by visual inspection of a boxplot. Median race/rank scores were statistically significantly different between groups, \( H(3) = 414.971, p < 0.0005 \). Subsequently, pairwise comparisons were performed using Dunn’s (1964) procedure with a Bonferroni correction for multiple comparisons. Adjusted \( p \) values are presented. This posthoc analysis indicated statistically significant differences in intention to reenlist scores between the nonminority E1-E4 \( (Mdn = 3.00) \) and minority E1-E4 \( (Mdn = 4.00; p = 0.006) \), nonminority E1-E4 and minority E5-E9 \( (Mdn = 4.00, p < 0.0005) \), and nonminority E1-E4 and nonminority E5-E9 \( (Mdn = 5.00, p < 0.0005) \) groups.

The interpretation of the posthoc data analysis indicated statistically significant differences in intention to reenlist scores between the minority E1-E4 \( (Mdn = 4.00) \) and nonminority E5-E9 \( (Mdn = 5.00, p < 0.0005) \) groups. Posthoc analysis further showed no statistically significant differences in intention to reenlist scores between the minority E5-E9 \( (Mdn = 4.00) \) and nonminority E5-E9 \( (Mdn = 5.00, p = 1.000) \) groups. Nonminority women in the junior enlisted pay grades of E1-E4 reported the lowest median rate of neither likely nor unlikely regarding reenlistment, while nonminority women reported the highest intent to reenlist as very likely at the senior enlisted pay grades of E5-E9. The
significant reduction in participation from nonminority women E5-E9 indicates a potential that their reduced participation at higher grades was not voluntary.

**Mann-Whitney’s U.** Posthoc analysis of the Kruskal-Wallis H test to determine the existence of reported intention to reenlist indicated a statically significant difference between groups. To further determine if a statistical difference within the group of race, rank, or both exists a Mann-Whitney U test was conducted for race and rank.

**Intention to reenlist by race.** A Mann-Whitney U test was run in SPSS to determine if there were differences in reported intention to reenlist between White, non-Hispanic women (n = 2,183) and minority women (n = 4,533). Distributions of the reported intention to reenlist scores for White, non-Hispanic women and minority women were similar, as assessed by visual inspection. The reported intention to reenlist was statistically significantly different between White, non-Hispanic women (Mdn = 4.0) and minority women (Mdn = 4.0), U = 4,803,849.5, z = -2.014, p = 0.044. Minority and nonminority women were statistically significant in the difference of reported intention to reenlist rejecting the null hypothesis that no significant group difference exists between minority and nonminority enlisted women’s intent to reenlist in the U.S. Army.

**Intention to reenlist by rank.** A Mann-Whitney U test was run in SPSS to determine if there were differences in reported intention to reenlist between women in the pay grade E1-E4 (n = 2,791) and women in the pay grade E5-E9 (n = 3,933). Distributions of the reported intention to reenlist for women grade E1-E4 and women grade E5-E9 were similar, as assessed by visual inspection. The reported intention to
reenlist scores were statistically significantly different between women grade E1-E4 ($Mdn = 3.00$) and women grade E5-E9 ($Mdn = 4.00$), $U = 3,969,714$, $z = -20.173$, $p < 0.0005$. Women of junior enlisted ranks (grade E1-E4) reported a statistically significant lower rate of intent to reenlist than women of senior enlisted ranks (grade E5-E9), rejecting the null hypothesis that no significant group difference exists between junior and senior enlisted women’s intent to reenlist in the U.S. Army.

**Qualitative finding.** Cross-case comparison of responses provided during interviews within the interest area of retention found no reported use of moderators to increase reenlistment potential. Interview participants, regardless of functional area of service or race, reported no challenge related to retention and reenlisting specifically. The lack of obstacles observed by interview participants was comprehensive, as expressed by MSG7: “Reenlisting is easy in the Army. You have to have the will. You have to eat it like its chocolate cake, is what I tell people.” In describing reenlistment, MSG5 also said, “I reenlisted that was basically it, three reenlistments. I’m still here but no there was nothing that I did to stay in.” Providing more detail of the typical three reenlistments shared by the interview participants, MSG9 recalled:

There was nothing significant that I did; I just knew I was going to reenlist at least once. A second time I reenlisted for 6 years; the [final] time that I reenlist I think that is when I was in AIT Platoon Sergeant. When you go over 10, you have to go INDEF.

Demonstrated results and potential for increased responsibility recalled during interviews and individual ERB reviews indicate all participants possess competitive files with no threat of reaching a RCP. With an average time of 20 years in service among
participants, all are two pay grades and soon to be a third pay grade above any associated RCP (Staff Sergeant RCP is 20 years).

**Population representation.** The actual representation of women by race and ethnicity over time does not represent the intent to reenlist portrayed in the 2016 WGRS responses (OPA, 2017). Annual active duty U.S. Army enlisted women progression by race and pay grade, as represented by Figure 4.5, indicates a significant reduction in the representative percentage of nonminority women after the pay grade of E4.

Omitting ethnically Hispanic women from the White race statistics, provided in the annual DoD report on the population representation in the military services, aligns with the nonminority definition used by the WGRS (OPA, 2017). The darkest line depicted in Figure 4.5 portrays a significant drop in participation of White non-Hispanic women after the pay grade of E4, when these women intend to reenlist at a comparable rate to minority women.

**Figure 4.5. FY17 Active Army enlisted women progression by race and grade.**
Summary

The Kruskal-Wallis H test was run in SPSS and data analysis indicated differences in the reported intention to reenlist median of race/rank scores and included a statistically significant difference between groups rejecting the null hypothesis that minority and nonminority women share the same intent to reenlist in U.S. Army. Posthoc analysis indicated that nonminority women in the junior pay grade of E1-E4 reported the lowest median rate of intention to reenlist. Conversely, nonminority women at the senior pay grade of E5-E9 reported the highest intent to reenlist. A posthoc Mann-Whitney U test included a statistically significant difference between women in the grade of E1-E4 and grade E5-E9 and between the minority and nonminority women. Race was less statistically significant than grade.

Interview participants recalled only limited hesitation to reenlist at the junior pay grades and had full intention to reenlist beyond the first reenlistment. Through cross-case comparison of the data, there was a complete alignment of intent to reenlist between the cases. Further data analysis by race indicated no difference in intent to reenlist nor challenges related to retention. Integration of the CNA PopRep data for the fiscal year 2017 (OUSD/P&R, 2016b), displayed visually in Figure 4.5, includes a 5% drop of nonminority women from the pay grade of E4 to E5. Interview participants recalled their first reenlistment after 3 years of service near the time of attaining the pay grade of E5. The PopRep data indicates support for the initial reduced intention to reenlist found in the WGRS responses of nonminority women at the junior ranks (E1-E4). The representative
percentage of participation of White non-Hispanic women drops at the pay grade of E5. The WGRS analysis, cross-case analysis, and CNA PopRep data align with the increased intent of senior enlisted (E5-E9) women, regardless of race or ethnicity.

**Civilian Education**

A total of eight (67%) women, four (80%) from the operations case and four (57%) from the force sustainment case advocated for women in the U.S. Army to follow their example to increase civilian education. The participants, mostly minority women (75%), believed civilian education benefits women’s careers in the Army. Review of available ERBs provided the list of degrees and credit hours completed by each individual. Also available on each ERB are the Armed Services Vocational Aptitude Battery (ASVAB) scores used to identify what MOSs for which an individual is best suited and qualified. After entry into the U.S. Army, 63% of minority women took the Armed Forces Classification Test (AFCT), and 25% of the nonminority interview participants took the AFCT. The AFCT is a battery of decision tests taken most often to enhance ASVAB scores.

The minority interview participants possessed more degrees, college credits, and correspondence course credits than nonminority interview participants. Figure 4.6 includes a graphic representation of each interview participant’s completed civilian education. Available ERBs included information that two of four (50%) nonminority women had a baccalaureate degree, and one (25%) went on to complete a master’s degree. The 11 available ERBs and interview responses provided that seven (88%) have
completed baccalaureate degrees, three (38%) have master’s degrees, and two (17%) stated during interviews that they were in the process of pursuing PhDs.

Minority participants sought self-improvement to increase ASVAB scores taking the AFCT and completed more civilian education than nonminority interview participants.

**Summary**

This chapter included a description of quantitative analysis using Kruskal-Willis H, Mann-Whitney U, and chi-square tests, qualitative analysis of interview transcripts, and convergent integration of both. Each component contributed to the identification of between-group difference of women’s experience of gender-based barriers, participation in the occupational functional areas, themes, and moderators of gender-based barriers.
Despite initial denials of experiencing gender-based barriers, every interview participant contributed to the identification of eight recommended behaviors men in the U.S. Army need to know.

Interpretation of the data analysis of the study included quantitative results rejecting each hypothesis after confirming significant group differences, qualitative findings of moderators of gender-based barriers in three areas of interest, and convergent results that added to the interpretation of the data about the moderators of assimilation and education. Discussion of the integrated analysis and conclusions are presented in Chapter 5.
CHAPTER 5—CONCLUSIONS AND DISCUSSION

As the U.S. Army continues efforts to integrate women across the force (U.S. Army, 2016b), the annual PopRep in the Military Services report (OUSD/P&R, 2018b) has included data that has indicated women remain underrepresented in senior leadership positions. Department of Defense internal studies and research conducted by Asch et al. (2016) of RAND, the Army GIS by Arnhart et al. (2015), and the Women in Combat Symposium summary provided by Tepe et al. (2016) have included to highlight that women in the Army encounter gender-related career barriers. The role congruity theory of prejudice toward female leaders, developed by Eagly and Karau (2002), describes barriers encountered by women in leadership roles and their underrepresentation in senior positions.

The purpose of this research was to understand and explain how moderators of gender-based barriers contribute to enlisted women’s increased recruitment, participation, retention, integration, and promotion to the highest enlisted rank of Sergeant Major in the U.S. Army. The discussion in Chapter 1 included the purpose of the research, the problem, background, and deficiencies in the evidence. Enlisted women have comprised 17% of the nonprior-service soldiers entering the Army while women represent only 8% of the Sergeants Major in the Army (OUSD/P&R, 2016b). Requested DMDC (2017) data further indicated women only hold 4% of all Command Sergeant Major positions. The U.S. Army women’s integration plan of 2016 included the need for “strategies to overcome [gender] barriers” (U.S. Army, 2016b, p. 13). The goal of this study was to
provide current and future leaders, with various levels of experience serving with women in the U.S. Army, a collection of moderators of gender-based barriers identified as beneficial to enlisted women in the Army.

Chapter 2 followed with a wide-ranging literature review of related theories, U.S. Army culture, research findings, barriers women face, and moderators of gender barriers. The literature included the finding that women in the U.S. Army encountered known career gender-barriers (Arnhart et al., 2015; Kamarck, 2016). Highlighted during the Women in Combat Symposium, the Army as an organization was found to have a lack of understanding of the gender barriers women in the Army encounter (Tepe et al., 2016). The Army integration plan included a call for research to better understand potential strategies for use as moderators of cultural issues and barriers (U.S. Army, 2016b). The U.S. Army has acknowledged the existence and perpetuation of gender-based barriers in part because of the traditional values that accompany new recruitments (U.S. Army, 2016b). Traditional values are linked to the social role theory (Eagly, 1987), the role congruity theory (Eagly & Karau, 2002), and benevolent sexism (Jones et al., 2014) in the Army. The results of this study were intended to understand and explain what active strategies are in use as moderators of gender-based barriers and contribute to women’s selection for promotion to Sergeant Major.

Chapter 3 included a description of the methodology, which was informed by access, the potential for bias, the purpose of the study, and the inability to manipulate the behaviors of participants. The research design was a transformative, mixed methods,
explanatory, multiple-case study. The social injustice of nonegalitarian treatment and opportunity for women in the U.S. Army was best suited to the transformative research design (Mertens, 2015, 2018) chosen for this study. U.S. Army policies have limited access to active duty soldiers for research with increased restrictions placed on sensitive subjects, which includes women and race in the Army, limiting approval of women soldiers’ participation and the scale of their participation. Previously conducted Army research data were made available for analysis to address sensitive subjects prohibited from inclusion during interviews of active duty soldiers. The combination of quantitative and qualitative data made a mixed methods approach as described by Plano Clark and Ivankova (2016) essential. Finally, the full integration of women in the Armed Forces without exception that began in 2016 (Carter, 2015) increased the participation of women in the functional area of operations and the need for a multiple case study (Yin, 2018) to compare operations and force sustainment experiences of women. The study was designed to answer two quantitative questions, two qualitative questions, and one mixed methods question.

Following a description of the methodology, Chapter 4 included the findings of the study. Examining the independent variables of race and rank, the first two quantitative research questions were focused on the existence of significant group differences of experience beyond that of chance. Analysis of the first quantitative question supporting data was to measure for the existence of significant group difference of race or rank and enlisted women’s experience of gender-based barriers in the U.S.
Army. Analysis of the second quantitative question supporting data was to measure for the existence of a significant group difference between race, rank, or functional area and enlisted women’s participation in the U.S. Army. The source data included (a) the 2016 WGRS data, (b) the 2016 PopRep report, and (c) the 2017 DoD active duty master file. The quantitative analysis was conducted first before gaining approval to conduct interviews. Preliminary quantitative findings were used to refine the qualitative semi-structured interview questions that followed.

The two qualitative research questions were focused on the lived experiences of women in the U.S. Army. The first qualitative research question was used to inquire as to what moderators of gender-based barriers enlisted women selected for promotion to Sergeant Major use to support their (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration. The second question was intended to focus on what moderators of gender-based barriers enlisted women selected for promotion to Sergeant Major find most effective.

Combining elements of the quantitative questions and the qualitative questions, the mixed methods question was intended to understand how enlisted women use moderators of cultural, gender-based barriers in the U.S. Army and to identify what variations by race, rank, and occupation functional area exist. The integrated analysis included convergent results that further explained the most effective moderators of assimilation and education.
Chapter 5 continues with a discussion of the findings and conclusions, the application of the findings of the study, the application of findings and conclusions to the problem statement, the application to leadership, and recommendations for action and further research.

**Discussion of Findings and Conclusions**

Chapter 4 included mixed methods results and findings in support of the two cases. The chapter began with quantitative analysis using Kruskal-Willis H, Mann-Whitney \( U \) and chi-square tests, followed by a qualitative analysis of interview transcripts, and closed with convergent data integration. Results of the quantitative analysis included the rejection of all null hypotheses and the indication of between-group differences of race, rank, and the experience of gender-based barriers. The analysis included the statistically significant finding that race is related to functional-area participation for enlisted women in the U.S. Army. Interview analysis included the selection of significant statements, the identification of categories, themes, subthemes, theme comparison between cases, and the identification of gender-barrier moderators reported as most effective. Significant statements were organized under five categories that included (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration. However, only three of the five categories included the identification of gender-based barrier moderators: (a) promotion, (b) participation, and (c) integration. Identified moderators aligned with the following three themes: (a) career planning, (b) adapting communication for the U.S. Army culture, and (c) obstacles of integration.
Theme and subtheme cross-case findings included similarities and differences among three moderators of gender-barrier identified as most effective, including (a) assimilate to the culture, (b) education, and (c) communicating agency. Quantitative results and qualitative findings combined in the final section of Chapter 4 to indicate convergent data that further explained moderators linked to assimilation and education.

The first qualitative research question was composed of five categories intended to identify the moderators of gender-based barriers enlisted women selected for promotion to Sergeant Major use to support their (a) recruitment, (b) promotion, (c) retention, (d) participation, and (e) integration. The study findings did not include moderators associated with all five categories. No interview participant recalled any practice, technique, or strategy used to increase their potential for recruitment into the U.S. Army. While promotion, participation, and integration are all elements that contributed to each individual’s ability to qualify for reenlistment in the Army, no interview participant attributed any use of a moderator specifically related to increasing their ability to reenlist. However, interview responses included multiple descriptions of moderators used in the three areas of (a) promotion, (b) participation, and (c) integration.

The first theme of career planning aligned moderators and experiences with the research focused category of promotion.

**Career Planning**

Career planning was the first theme derived from interview data on the behaviors believed to contribute to a woman’s selection for promotion to the rank of Sergeant
Major. This theme was discussed in terms of interview participant responses from the operations and the forces sustainment occupation functional area cases. Responses from multiple semi-structured interview questions (see Appendix A) contributed to the formation of this theme. For example, Question 6 asked required participants to describe any gender-based practice or strategy engaged in to increase their potential for promotion in the Army.

Table 5.1 and Table 5.2 display key moderators provided by interview participants that were coded as supporting the prospect of a woman’s promotion during a career in the U.S Army and specific actions used. Several practices displayed in Table 5.1 were shared among the participants in the areas of education, career roadmap, and volunteering.

Table 5.1

*Common Moderators Used to Enhance Promotion.*

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Common Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Complete civilian degrees</td>
</tr>
<tr>
<td>Career Planning</td>
<td>Diversify assignments, compare others within own career management field, monitor Army Career Tracker for trends</td>
</tr>
<tr>
<td>Plan for Children</td>
<td>No common trend of actions identified</td>
</tr>
<tr>
<td>Volunteering</td>
<td>Volunteer in the community, for training, deployments and hard to fill U.S. Army positions</td>
</tr>
</tbody>
</table>

Table 5.2 includes the moderator patterns of use that emerged, most notably the variety of moderators used by participants of the force sustainment case. Force
sustainment participants varied their education strategies by attending both civilian and military courses. Further, only nonminority force sustainment participants assumed assignments as SHARP representatives after completing the SHARP course.

Table 5.2

Case and Race-Specific Moderators Used to Enhance Promotion

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Nonminority Women Actions</th>
<th>Minority Women Actions</th>
<th>Operations Case Actions</th>
<th>Sustainment Case Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Attend SHARP, EO &amp; Master Resiliency</td>
<td>Complete advanced degrees</td>
<td>Attend EO &amp; Master Resiliency</td>
<td>Attend military courses/SHARP Course</td>
</tr>
<tr>
<td>Career Planning</td>
<td>No case or race specific actions were taken</td>
<td>Avoid, delay</td>
<td>Plan for children, Care, Family help</td>
<td></td>
</tr>
<tr>
<td>Plan for Children</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteering</td>
<td>SHARP Assignment</td>
<td></td>
<td>SHARP Assignment</td>
<td></td>
</tr>
</tbody>
</table>

Aside from the focus of minority women on completing advanced civilian degrees, participants of the two cases contrasted in their approaches to planning for children. Force sustainment participants were more likely to plan for children, while operations participants planned to delay having children. Unique to the area of promotion, actions taken to enhance the potential for promotion provided contrasting trends between races and functional areas.

**Plan for education.** Education is not only beneficial to the careers of women in the U.S. Army, but it is also one of the most effective moderators of gender-based barriers in the Army. Over 91% of interview participants recommended women engage in one of three forms of education: (a) military education, (b) civilian education, and (c)
personal learning. The Army regulation for promotions and reductions (U.S. Army, 2016a) follows the STEP concept, which indicates when individuals and leaders need to sequence professional military education. Additional military education is available on various subjects via courses and correspondence to prepare for specific additional duties and to enhance general knowledge. Occupational specialty courses include expert medical field badge, airborne, air assault, and ranger school. Specialty training may also award accouterments for wear on the uniform (U.S. Army, 2014c). Fifty-seven percent of the force sustainment case participants recommended military education and courses that awarded uniform badges. Education provides women with the power of knowledge, qualifications for promotion, increased credibility, and differentiated promotion files.

The educational approach of women, however, was found to differ according to case and race. Women of the force sustainment case described support for a variety of educational approaches, whereas operations case interview participants concentrated on civilian education with 80% recommending civilian education. Identified during the further analysis of individual ERBs, most racial and ethnic minority women participants entered the Army with lower ASVAB scores than nonminority women. Individual records also indicated minority women sought to improve their scores at higher rates than nonminority women, and over their career, completed more advanced civilian education degrees than nonminority women. Further, analysis of interview responses indicated education—civilian education, specifically—was one of the most effective moderators of gender-based barriers to increasing the potential for selection for promotion.
Career roadmap. Creating a career roadmap was beneficial to women. Interview participants used career roadmaps in different ways to achieve success. First, women developed career plans based on their desire to have children. Contained in research conducted by Holton and Dent (2017) was a focus on career development barriers and recommendations to improve the environment for women. In addition to women taking responsibility for their careers, Holton and Dent identified career planning as one of five key factors that contribute to women’s career development. Offering a practical framework to address the intersection of women’s career planning and work-life integration, Tajlili (2014) recommended a deliberate decision-making process that linked career plans with family plans. Second, women deliberately identified opportunities, and, when available, aggressively filled career enhancing positions. Women used the ACT to monitor trends within their CMF. To differentiate individual records and to stand out from their peers, women volunteered for positions the Army messaged as necessary to fill and increased their civilian education. Women selected for promotion to the rank of Sergeant Major in the Army combined the benefits of developing individualized career roadmaps with differentiated accomplishments and assignments as moderators of gender-based barriers. These findings are congruent with Tajlili’s framework, and the individual blueprint key factors described by Holt and Dent (2017); when implemented by women in the Army, they suggest an expected benefit.

Plan for children. Having children as an active duty soldier can be detrimental to a woman’s career. Pregnancy can interrupt the promotion of women for extended periods
beyond the 9 months of pregnancy and may result in their removal from coveted command positions. The prescriptive and rigid elements of the STEP concept (U.S. Army, 2016a) are seldom waived as a condition for promotion. Conditional waivers may result in a time of war, when combat operations and increased operational tempo limit the time available for soldiers to attend required professional development education courses necessary for promotion to the next rank. One participant, MSG10, stated pregnancy could delay elements of the STEP concept by “a total of about 20 months.” Another participant, MSG9, reported if she were put in a command position and became pregnant: “I would probably be shunned.” Career planning that included family desires was a moderator of gender-based policy barriers common among both operations and force sustainment cases.

By contrast, the decision to have children was approached differently between the operations and force sustainment cases. Women from the operations case were more likely to avoid interruptions to the STEP concept by choosing to delay bearing children or electing not to have children while serving on active duty in the U.S. Army. Operations case participants were more likely to be career focused, compete against men, and driven to hold leadership positions. Conversely, force sustainment case participants planned family into their careers and were more likely to have children. When seeking leadership positions, the women of the force sustainment case targeted the positions others avoided and aligned their goals with the stated needs of the Army. Examining the relationship of work conditions and motherhood wage penalty, Yu and Kuo (2017) found wage penalty
increased for women in occupations that encountered less autonomy, higher teamwork requirements, and greater competition. Confirming previous research, Florian (2018) analyzed the employment of women throughout their reproductive years and explained the employment benefit of delaying childbirth. The stated desire to attain and hold leadership positions in the hypermasculine culture of operations suggested delaying childbirth may benefit women in operations more than force sustainment functional areas. Further, Florian found the most significant benefit of delaying childbirth to be among Hispanic and Black women. The cross-case analysis and employment research, when combined, suggests that Hispanic and Black women in operations occupations may experience the highest degree of benefit during their career by delaying or avoiding childbirth as a moderator of gender-based barriers.

**Plan for child care.** Force sustainment case participants encountered work-family balance and FCP challenges. MSG10 stated, “The misconception of what a family care plan does for you . . . is an obstacle for all females to overcome.” Army regulation 600-20 includes the requirement of dual military spouses (both spouses on active duty) and single parents or guardians to establish plans for short- and long-term care of family members. Interview participants recalled no notice changes to the workday schedule and supervisors believing FCPs (developed to support planned absences) should cover unplanned absences. Primary care providers and on-base CDCs may provide little flexibility and often levy additional fees—in many cases by the minute—for late pick up of children. To assist with nonstandard schedules and the cost of childcare, interview
participants invited family members to share living quarters and assist with childcare. In
some instances, participants described using a reenlistment option for duty location of
choice to relocate near family members willing to assist with childcare. Operations case
participants did not provide any response related to work-family conflicts or FCP
challenges. By contrast, force sustainment case participants recalled the use of locating
near or with family members as a moderator of gender-based barriers linked to work-
family balance and FCP challenges.

**Volunteering.** Volunteering was found to provide a benefit to women in two
ways. First, women volunteered for positions, which increased their potential for
promotion. Second, women volunteering in the community on and off base reduced the
potential for backlash when in leadership positions. Eagly and Karau (2002) described
that women in leadership positions encountered prejudice for not being agentic enough
and instead being expected to be communal as part of the role congruity theory.
Volunteering in the community demonstrates the expected communal trait associated
with women. When these interview findings are combined with theory, it seems women
may have benefited from reduced backlash as described within the role congruity theory
(Eagly & Karau, 2002), even though women did not explicitly describe volunteering as a
moderator of gender-based barriers.

**Adapting Communication for the U.S. Army Culture**

Adapting communication was the second theme derived from interview data
related to the behaviors believed to increase the participation of women in the U.S. Army.
This theme was discussed in terms of interview participant responses from the operations and the forces sustainment occupation functional area cases multiple semi-structured interview question (see Appendix A) responses contributed to the theme formation. Focusing on participation and acceptance specifically, questions four and seven when asked required participants to describe any gender-based practice or strategy engaged in to increase their potential for participation and acceptance in the Army.

A collection of interview participant responses linked to key moderators that improve the participation of women are listed in Table 5.3 and Table 5.4. Table 5.3 includes a description of actions specifically used within each case. Several participants shared practices within the moderator topics of *assimilating to the culture* and *communicating agency*. Patterns emerged in the use of moderators listed in Table 5.4, and again, a greater variety of actions were found to be in use by force sustainment case participants over operations case participants. Force sustainment participants’ actions revolved around self-agency and enforcement of standards. The category of participation included the most effective moderator identified as *assimilate to the culture* and the most variety of actions used by interview participants.
Common Moderators to Increase Participation

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Common Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assimilate to the Culture</td>
<td>Deny obstacles; No tolerance for disrespect; Build &amp; Protect credibility</td>
</tr>
<tr>
<td>Communicate Agency</td>
<td>Know your audience; Self-advocate; Conduct self-assessments; Display moderate demeanor and confidence</td>
</tr>
<tr>
<td>Agentic Behavior</td>
<td>No common trend of actions identified</td>
</tr>
<tr>
<td>Nonverbal Communication</td>
<td>No common trend of actions identified</td>
</tr>
<tr>
<td>Work-Family Balance</td>
<td>No common trend of actions identified</td>
</tr>
</tbody>
</table>

Table 5.4

Case-Specific Moderators to Increase Participation

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Operations Case Actions</th>
<th>Force Sustainment Case Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assimilate to the Culture</td>
<td>Enforce EO &amp; Sexual harassment standards</td>
<td>Fit in; Pack light; Distance from stereotypical women; Contribute to the team; Correct women avoiding work (wallflowers)</td>
</tr>
<tr>
<td>Communicate Agency</td>
<td>Do not keep quiet</td>
<td>Be comfortable with being uncomfortable; Be a soldier</td>
</tr>
<tr>
<td>Agentic Behavior</td>
<td>Be assertive</td>
<td>Be comfortable with being uncomfortable; Be a soldier</td>
</tr>
<tr>
<td>Nonverbal Communication</td>
<td>Demonstrate work ethic and physical fitness; Earn uniform badges</td>
<td></td>
</tr>
<tr>
<td>Work-Family Balance</td>
<td>Plan; Arrange family help</td>
<td></td>
</tr>
</tbody>
</table>

Assimilate to the culture. The second qualitative research question intended to identify the moderators of gender-based barriers enlisted women selected for promotion to Sergeant Major found most effective. Interview responses most often pointed to the
practice of assimilation. Participants referenced assimilation moderately above the other two most effective moderators of maximizing educational opportunities and communicating self-agency. The differentiated emphasis and use of moderators by the two cases, including moderators identified as most effective, suggest a difference in application.

**Confidence.** Self-doubt erodes self-confidence as a moderator of gender based-barriers. Interview participants from both cases recalled multiple challenges of self-doubt along the path to the attainment and retention of confidence. Participants described events of self-realization and self-talk as a means to build their self-confidence. Sturm, Taylor, Atwater, and Braddy (2014) examined the leadership evaluation predictions of women and found women under-predicted the perceptions of their abilities. The two primary reasons for why participants thought women under-predicted were (a) a lack of confidence and (b) a lack of feedback. Echoing the first category of why women under-predict leadership ratings and in reflecting on her self-talk debate after being selected for promotion, one operations case participant recalled feeling unqualified at times during her career. The lack of feedback perceived by the participants of Strum et al.’s (2014) study suggests the need for peer or mentor feedback as a moderator of the male-dominated culture of the U.S. Army.

**Social challenge.** Researchers have developed frameworks to understand the perceptions of women in nontraditional roles. The societal gender roles and stereotypes associated with nonminority women combined with the significant population of
nonminority (i.e., White non-Hispanic) men in the U.S. Army aligns with the social role theory developed by Eagly (1987). The traditional values of those with a propensity to serve (U.S. Army, 2016b) and the hypermasculine subculture within combat arms units (Arnhart et al., 2015) provides fodder for the social role theory premise. The premise of the theory that sex-differentiated skills and beliefs originate from cultural conformity, as explained by Eagly and Wood (2016). Heilman, Manzi, and Braun (2015) argued the degree women deviate from expected social role conformity contributes to a perceived lack of fit. These theories are used to describe the expected behavior toward women in nontraditional roles and leadership positions.

Gender bias can contribute to a lower selection of women for promotion in the U.S. Army. Contributing to men’s perceived lack of fit of women in the Army, many male soldiers think military occupations are gender-specific and “men’s work” (Arnhart et al., 2015, p. 47). The associated negative performance expectations described within the lack-of-fit model increases with traditionally held male positions. This study contained the documented steady decline in participation of enlisted women from an overall average participation of 13.4% to 8% as Sergeants Major (OUSD/P&R, 2016b) and only 4% holding the most coveted positions as Command Sergeants Major (DMDC, 2017). The lack-of-fit model describes bias directed at women as they ascend to top-level positions within organizations (Heilman et al., 2015) and, like the role congruity theory developed by Eagly and Karau (2002), occupy leadership positions. Both the decline in the participation of women in the Army and supporting research on this topic suggest the
presence of gender bias is negatively impacting women in the Army as they ascend to the highest leadership positions in the Army.

**Benevolent sexism.** The helping behaviors of others are detrimental to women building confidence. Chou and Chang (2017) explored the impact of receiving helping behavior on employee’s self-concept. Supportive of a previous study on the perception of those providing help conducted by Nadler and Chernyak-Hai (2014), Chou and Chang posited those receiving help are perceived negatively by the helper and by themselves. The degree of negative perception is dependent on the type of help offered, which can be either autonomy oriented or dependency oriented. The provision or receipt of dependency-oriented help is most negatively perceived by the helper (Nadler & Chernyak-Hai, 2014) and has the most negative impact on the recipient’s self-concept (Chou & Chang, 2017). Recalling the detrimental effects of unsolicited helping, multiple interview participants from both cases encouraged men to treat women as a member of the team and not complete work for them. Nadler and Chernyak-Hai further examined the social status of the individual receiving the help, referred to as help seekers, and described a feeling of pity and social responsibility toward the help seekers of low status. In combination, these findings suggest entry-level women (low status) in the U.S. Army are more likely to receive the most detrimental dependency-oriented help as opposed to the autonomy-oriented help.

The damaging effects of helping are amplified when warm cross-gender helping, also referred to as benevolent sexism, is engaged as a means to perpetuate traditional
gender roles. Expanding on research on the ambivalent sexism by Glick and Fiske (1996), later research conducted by Connor et al. (2016) linked ambivalence toward women to hostile sexism and benevolent sexism. Benevolent sexism encourages the chivalrous traditional gender roles of men to protect women, and in turn, undermines women’s career self-efficacy and ambitions. Multiple researchers have examined the harmful effects of benevolent sexism (e.g., Hideg & Ferris, 2016; Hopkins-Doyle, Sutton, Douglas, & Calogero, 2019). Common among these research findings is the reduced likelihood of women identifying benevolent sexism as harmful. Relationship research conducted by Cross and Overall (2018), for example, included the finding that women seeking relationship security were more attracted to men with benevolently sexist attitudes. Cultural stereotypes were highlighted within the Army GIS conducted by Arnhart et al. (2015), such as the traditional views of many male soldiers, as one of the five known barriers to integration of women into the U.S. Army. Further, women in the Army marry at a higher rate than civilian counterparts, particularly in their early 20s. The traditional values of both men and women soldiers suggest an increased likelihood of women overlooking the detrimental career effects of benevolent sexism when they are junior, enlisted soldiers seeking relationships.

**Standards enforcement.** Women benefit from the enforcement of regulations and standards. Interview participants as senior leaders enforce standards as part of being leaders in the U.S. Army. Individual moral courage is necessary to make corrections along with the confidence that one is correct in the enforcement of standards. Enforcing
standards as a leader may contribute to the perception of being agentic and reduce the role congruity theory descriptive prejudice described by Eagly and Karau (2002) that women must demonstrate sufficient agentic behavior for the position they hold. Demonstrating competency in maintaining standards and the enforcement of standards legitimized by associated regulations may be perceived as agentic behavior, build personal credibility, and establish a personal reputation.

**Communicating self-agency.** The representation of women’s views, ideas, and positions are advanced by listening before engaging in a conversation. Interview participants recommended women speak up, be heard, and demonstrate self-agency using a three-part strategy. First, collect information to form the best argument. Allowing others to speak first increases the time available to think through a tailored argument to convey views and ideas. Second, avoid combative conversations by choosing an advantageous time and place to reengage a conversation after gathering more facts. Third, display confidence when engaged in self-advocacy. The Army GIS conducted by Arnhart et al. (2015) contained a cultural description of combat arms units in masculine terms like those associated to men as part of the social role theory (e.g., dominant, competitive, and willing to take risks; Eagly, 1987). Previous research contained the identification of the backlash women have experienced after displays of dominance comparable to that of a male counterpart but perceived to be outside of culturally prescribed gender roles. Like the role congruity theory, the meta-analysis Williams and Tiedens (2016) conducted included the finding that women experienced backlash when perceived as violating the
injunctive norm dictating women are communal. Men’s perceptions of women as dominant or competitive may be reduced as women delay entering a conversation. Determining the positions of others provided interview participants opportunities to form informed arguments. This delay may add to more communal perceptions or lower the perceived degrees of aggressiveness when women enter conversations and may add to likeability and perceived competence (Williams & Tiedens, 2016). Women in the U.S. Army displaying less aggression and more communal traits in conversation likely experience less backlash and gain benefit from delaying entry into conversations as a gender-based moderator of the prescriptive social behavior requirement that women ought to be less agentic and more communal.

**Communicating agentic behavior.** An emotional display by women in leadership positions may be detrimental to their reputation. The descriptive norm described by Eagly and Karau (2002) within the role congruity theory is the prejudicial social measure and calculation if a woman is agentic enough for leadership positions. Recounting the differing perceptions of men as passionate and women as emotional when acting similarly, MSG10 expressed:

> So, if a guy walks into the room turns over a table and says, “Fuck this shit!” You know, I mean, he is passionate. He is there for a reason. If a female walks in and does it, they’re emotional, and she doesn’t know how to curtail her emotions.

Half of interview participants practiced or recommended women in the U.S. Army maintain moderate demeanors. Women recommended multiple moderators of the gender-based barrier associated with the stereotypical categorization of women as communal and insufficiently agentic for leadership positions. First, interview participants
recommended the practice of self-monitoring to reduce emotional displays and the potential for negative perceptions by others. Second, the use of self-assessments to improve mindful monitoring of their communication delivery, facial expressions, and body language. Finally, women shared when they might display increased levels of emotion to enlist the aid of a confidant for when self-awareness practices failed. In addition to the moderators in use by interview participants, increasing levels of self-efficacy lower emotional arousal as explained in Bandura’s (1982) research on the topic. Taking the results of these findings together, women in the Army likely benefit from maintaining a moderate demeanor to reduce the perception of emotion and gender stereotypes.

**Nonverbal communication.** Nonverbal means of communication can benefit women during interactions with others and career progression. The most commonly referenced nonverbal moderator of gender barriers described by interview participants was the use of uniform accouterments to communicate demonstrated capability. Recommendations included physically demanding courses and specialized courses unique to specific military occupational specialties that result in badges to be worn on the uniform. Women also engaged in practices that demonstrated their willingness and desire to be part of a team, regularly distancing themselves from those contributing to the perpetuation of female gender stereotypes. As the previous discussion on the benefits of self-efficacy indicated, nonverbal displays of confidence also benefited women.
**Work-family balance.** Women in the U.S Army tend to face increased work-family conflicts as families grow and leadership responsibilities increase. Task completion, referred to in the military as “mission focused,” in combination with training exercises and deployments all contribute to the potential for a nonstandard work schedule. Ammons, Dahlin, Edgell, and Santo (2017) found the lack of a predictable work schedule contributes to work-family conflict. White women and men and women with children under the age of 18 were found to be most affected by nonstandard work schedules. Ammons et al.’s (2017) and Dow’s (2016) study of motherhood ideologies included a finding that cultural expectations of motherhood influenced reduced reporting of work-family conflict among African American study participants. The participants felt an expectation for mothers to maintain self-reliance, work outside the home, and receive child care assistance from kin and the community. Consistent between the studies was the use of kin assistance with childcare as a moderator to reduce work-family conflicts and nonstandard work schedules.

**Obstacles of Integration**

Obstacles of integration was the third theme derived from interview data related to gender-based barriers experienced throughout a career. Interview participant responses from the operations and the forces sustainment occupational functional area cases combined to compose the theme. Multiple semi-structured interview questions (see Appendix A) relating to obstacles, acceptance, and advice for others contributed to the formation of this theme. Focused on obstacles specifically, Question 3 asked participants
to describe any gender-based obstacle experienced as an enlisted woman pursuing a career in the U.S. Army. In combination with the supported hypotheses of the between-group difference of enlisted women’s experiences in the U.S. Army, the integration of results contributes to the findings and conclusions of integration obstacles.

**Differentiated obstacles.** The first hypothesis stated between-group difference exists between race or rank and enlisted women’s experience of gender-based barriers in the U.S. Army. Quantitative analysis of the null hypothesis was conducted using the 2016 WGRS (OPA, 2017) data to examine the four areas of (a) hostile work environment, (b) gender discrimination, (c) sexually hostile work environment, and (d) military equal opportunity. Hypothesis subquestion analysis began with the Kruskal-Wallis H test analysis of hostile work environment data, which indicated the median race/rank scores were statistically significantly different between groups, $H(3) = 16.639, p = 0.001$. The chi-square test of independence analysis of gender discrimination then indicated a statistically significant association between women’s demographics and experiencing gender discrimination in the U.S. Army, $\chi^2(3) = 43.468, p < 0.0005$. A chi-square test of independence analysis of sexually hostile work environment indicated a statistically significant association between women’s demographics and the experience of a sexually hostile work environment in the U.S. Army, $\chi^2(3) = 65.374, p < 0.0005$. Finally, a chi-square test of independence analysis of the WGRS data of military equal opportunity included the result of a statistically significant association between women’s demographics and experiencing sex-based military equal opportunity violations in the
U.S. Army, \( \chi^2(3) = 6.991, p < 0.0005 \). Consistent among all areas is a statistically significant weak association with race. In all four areas, between-group differences were found to be statistically significant and resulted in the rejection of the null hypothesis that no difference existed between groups of women measured.

**Rank association.** Only the areas of gender discrimination and sexually hostile work environment had a statistically significant association to rank, and in each area of gender discrimination and sexually hostile work environment, the race of women had a more significant measure of association over rank. A chi-square test for rank association analysis of gender discrimination indicated a statistically significant association between the rank of women and experiencing gender discrimination in the U.S. Army, \( \chi^2(1) = 15.481, p < 0.0005 \). A chi-square test for rank association analysis of sexually hostile work environment also indicated a statistically significant association, in this case, between the rank of women and experiencing a sexually hostile work environment in the U.S. Army, \( \chi^2(1) = 19.721, p < 0.0005 \). Taken together, it is possible to state that the race and the rank of women in the Army contributed to the existence of between-group differences in their experience of gender-based barriers.

**Junior enlisted: Nonminority women.** Lower enlisted and nonminority women experience gender-based barriers at a higher rate in some areas over others. Department of Defense (2018) annual reporting of sexual harassment indicated 81% of complaints are from women, 90% originated from enlisted, and 70% of enlisted complaints were from lower enlisted service members in the pay grade of E1-E4. Quantitative results of WGRS
in the areas of U.S. Army sexually hostile work environment and military equal opportunity violations align with the DoD reporting in terms of occurrence, gender, and rank. The DoD (2018) annual report of sexual harassment did not include analysis of race. Isolated data analysis of race in the areas of sexually hostile work environment and military equal opportunity violations indicates that nonminority women in the Army experience unwanted sexual encounters at a higher rate than minority women. Also, sexually hostile work environment results indicate nonminority women experienced sexual hostility in the workplace at a higher rate than minority women, with the highest rate reported among lower enlisted nonminority women. Similarly, sex-based military equal opportunity violations results show that nonminority women experienced military equal opportunity violations at a higher rate than minority women, and again, the highest rate of occurrence found among junior nonminority women. Returning to the purpose of this study, the interpretation of the data analysis suggests moderators of gender-based barriers change over a career as unwanted sexual encounters diminish in frequency.

**Integrated conclusion.** Convergent integration of sexually hostile work environment and military equal opportunity violations results, CNA PopRep data for the fiscal year 2017 (OUSD/P&R, 2016b) used in the analysis presented in Chapter 4, and partner preference studies, when combined suggest the increased sexual attention given to junior nonminority women may relate to their ratio to nonminority men in the U.S. Army. First, sexually hostile work environment and military equal opportunity violations results indicate an increased rate of unwanted sexual behavior occurrence among junior
grade, nonminority women. Table 5.5 is an aggregate \((n = 2,453)\) of all four WGRS areas compared to reported occurrences of sexually hostile work environment and military equal opportunity violations \((n = 2,248)\). Consistent with Figure 4.5, Table 5.5 shows the increased nonminority women reported occurrence in all areas. Of the 1,183 nonminority women in the rank of E1-E4 that responded to the WGRD, 37% reported a negative experience in one or more of the four areas of hostile work environment, gender

Table 5.5

*Reported Occurrence of Gender or Sexual Hostility*

<table>
<thead>
<tr>
<th>Experienced in the last 12 months</th>
<th>All four areas</th>
<th>Sexually hostile work environment or military equal opportunity violations</th>
<th>Reporting sex-related occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonminority E1-E4</td>
<td>37%</td>
<td>35%</td>
<td>93%</td>
</tr>
<tr>
<td>Minority E1-E4</td>
<td>27%</td>
<td>25%</td>
<td>90%</td>
</tr>
<tr>
<td>Nonminority E5-E9</td>
<td>32%</td>
<td>30%</td>
<td>93%</td>
</tr>
<tr>
<td>Minority E5-E9</td>
<td>29%</td>
<td>26%</td>
<td>91%</td>
</tr>
</tbody>
</table>

*Note.* WGRS participant responses are not exclusive to one reported area.

discrimination, sexually hostile work environment, and military equal opportunity violations.

Thirty-five percent of nonminority women participants experienced an unhealthy work environment because of a sexually hostile work environment or a violation of sex-based military equal opportunity violations. Only 2% of the individually reported occurrences were not sexual, contributing to a 93% overlap of one or more areas that included an occurrence of unwanted sexual behavior.

Second, 2017 PopRep data indicate nonminority women in the pay grade of E1-E4 \((n = 10,694)\) were represented at a 1:9 ratio to nonminority men in the pay grade of
E1-E4 ($n = 96,500$). Poprep data also indicate a 1:3 ratio of Black women E1-E4 ($n = 12,407$) to Black men E1-E4 ($n = 38,612$) and an overall 1:6 ratio of enlisted women ($n = 54,415$) to enlisted men ($n = 325,522$) in the U.S. Army (OUSD/P&R, 2016b). When asked about obstacles experienced as an enlisted woman in the Army, one nonminority woman, MSG10, said, “The first obstacle I felt that I had to overcome was just being a female in general when you walk in you are 90 to 1 it seems like.” Finally, partner-preference studies conducted by Bahns (2019) and Lewis (2016) continued support of prior relationship research indicating similarity preferences. Brooks and Neville (2017) further explored the interracial, heterosexual romantic attraction of Black and White men and found each group was more attracted to women of the same race. Combining these findings, it is plausible that the disproportionate number of nonminority men may contribute to an increased occurrence of unwanted sexual advances experienced by junior grade, nonminority women in the U.S. Army.

**Nonsexual obstacles.** Aggressive and poor dating habits of the numerically dominant population of men in the U.S. Army is known to account for the near 30% of the annual occurrence of unwanted sexual behavior women encounter, as reported in the WGRS (OPA, 2017). A full account of the actions of men in the Army toward women goes beyond this research, but the results support the existence of differentiated gender-based barriers. Discussion of the results has demonstrated between-group differences of race and rank with a focus on unwanted sexual encounters. Race and rank continue to contribute to the identification of nonsex-related gender-based barriers and between-
group differences in the WGRS area of hostile work environment and gender discrimination. Hostile work environment and gender discrimination responses were encountered independently or together by a single WGRS respondent, as indicated previously. Race, but not rank, was demonstrated to have an association with the experience of hostile work environment. Nonminority women reported an increased frequency of hostile work environment and gender discrimination compared to minority women. Reporting of hostile work environment related to challenges such as work performance interference, insufficient information provided, or others taking credit for work. Therefore, returning to the hypothesis that between-group difference exists, two patterns have emerged. First, nonminority women are more likely to encounter higher rates of sexual harassment and gender discrimination than minority women. Second, the frequency of unwanted sexual encounters by nonminority women decreases over a career, and as a group, nonminority women experience increased workplace hostility and gender discrimination.

**Differentiated functional area participation.** The second hypothesis, which was also supported, stated that significant group difference exists between race, rank, or functional area and enlisted women’s participation in the U.S. Army. Analysis of the DMDC (2017) datasets of fiscal year 2017 Sergeants Major functional areas of service and the fiscal year 2000 enlisted accessions (recruits) functional areas of service (DMDC, 2019) also included a statistically significant association with race. The results depicted in Figure 5.1 indicate a pattern of overrepresentation of nonminority women in the
operations functional area. When compared to Black women, there is a statistical between-group difference in not only the functional area of initial recruit participation,

![Figure 5.1](image)

*Figure 5.1. Race representation comparison by year and functional area. Adopted from the Defense Manpower Data Center (DMDC) datasets of Fiscal Year 2017 Sergeants Major functional areas of service, and FY 2000 Enlisted accessions by DMDC.*

but again, at the opposite end of the career path as Black women are over-represented in the force sustainment functional area as Sergeants Major.

Results of the RAND study conducted by Asch et al. (2016) were intended to help researchers explain the differences in retention of commissioned men and women in the U.S. Army. Unable to fully explain the gender differences in retention, the authors noted while women were less likely to be in tactical (operations) occupations, retention at the mid-grade level of women in tactical occupations was more likely than in support occupations. Depicted in Figure 5.1, analysis of the representation of nonminority and minority women in operations indicates an increase in women’s participation over time. This is counterintuitive and contrary to the belief that the attrition of women is highest in tactical occupations (i.e., operations). The overall effect of a career in operations, despite the associated negative aspects and gender barriers, is beneficial to enlisted women. This result regarding senior enlisted women differs from the decline of senior commissioned
women in the Army (Asch et al., 2016). The highest attrition in the volume of enlisted women is in force sustainment occupations. Currently, it is not clear from the available research what the impact may be on the careers of women in force sustainment occupations who move between tactical and nontactical assignments.

Conversely, soldiers in operations careers generally receive assignments to operations units and are assigned to support units by exception. The results support the hypothesis of between-group difference between race, rank, or functional area and the descriptive statistics depicted in Figure 5.1 indicate an increased representation of women in operations occupations over a career. However, what is not clear is if functional area career success is associated with the race of women in the Army.

**Participation trajectories.** The role congruity theory focuses on the gender role prejudice encountered by women in leadership positions (Eagly & Karau, 2002) and contributed to the analysis and understanding of the WGRS gender discrimination results. The gender discrimination crosstabulation results, previously presented in Table 4.2, indicated that nonminority women at the senior level experienced a higher rate of gender discrimination (19.6%) than expected (15.5%). Soldiers in the pay grades of E5-E9 are leaders, and, in many cases, hold leadership or command positions in the U.S. Army. Eagly and Karau (2002) described two forms of prejudice that apply to women in leadership positions. The first aspect of prejudice is the descriptive norm that men are agentic and are leaders. When women hold leadership positions, men assess a descriptive norm penalty based on the degree of agentic behavior women display. Analysis of data
gathered during the Army GIS indicated a significant perceived cultural lack of fit of women entering combat units and the perceived negative impacts to unit morale (Arnhart et al., 2015). Women assigned to combat arms units were measured against some of the most agentic leaders in the Army suggesting an increased potential for the stereotypical categorization of women as insufficiently agentic.

In addition to the potentially increased gender discrimination for not conforming to social role expectations (Eagly & Karau, 2002), or the descriptive norm of being agentic enough, the second aspect of prejudice described by Eagly (1987) is an injunctive norm or expectation that women are communal. The traditional values of men in the U.S. Army and the expectation of women as communal coupled with the sheer numbers of enlisted men \((n = 325,522)\) compared to enlisted women \((n = 54,415)\) in the Army (OUSD/P&R, 2018a) may contribute to the gender discrimination reported by women in the WGRS (OPA, 2017).

Finally, the divergent progression rate of senior enlisted women (previously depicted in Figure 4.1) support the existence of a different participation rate between nonminority and Black women in the Army. The participation rate of nonminority women at 16% and Black women at 56% at the rank of Sergeant Major (OUSD/P&R, 2018a) suggests the WGRS analysis result of differentiated experiences of women in the Army may impact the participation of women differently over time.

Marriage, childbirth, and work experience affect women’s participation and wages over time. Extending previous research and documenting the gender difference in
wages after marriage, Cheng (2016) compared women by race over time and identified a divergent association of wage change after marriage between White and Black women. Figure 5.2 nearly mirrors the negative wage trend of married White women and the inverse wage growth among married Black women over time found by Cheng. Controlling for childbirth and work experience, Cheng (2016) found childbirth negatively impacted both White and Black women and increased work experience negatively impacted White women. The negative cultural aspects affecting married White women over time suggests a differentiated application of the role congruity theory between White and Black women.

![Progression comparison of White and Black women in the U.S. Army.](image)

*Figure 5.2. Progression comparison of White and Black women in the U.S. Army. Adopted from “Table B-37. Active Component Enlisted Members, FY17: by Pay Grade, Service, Gender, and Race/Ethnicity,” by Office of the Under Secretary of Defense, Personnel and Readiness, 2018, Population Representation in the Military Services: Fiscal Year 2017.*

Race contributes to the differentiated measure of agentic deficiency and agentic penalty assessments of women in leadership positions. Rosette et al. (2016) evaluated the
perceptions of agentic-competence and agentic-dominance of Black, Asian, and White women in leadership positions. The measures used by Rosette et al. align with the role congruity theory descriptive and injunctive prejudice described by Eagly and Karau (2002). Rosette et al. found Black women are perceived as dominant and more masculine than feminine (least measure of agentic penalty) but not competent (most agentic deficiency). The U.S. Army development of individual soldiers and future leaders is based on the learning of skills (U.S. Army, 2015b) like the skills approach leadership theory described by Northouse (2016). Development potential being equal, women in the Army must also navigate the STEP concept (U.S. Army, 2016a) multiple times to reach senior leadership positions. The completion of military courses, promotions, and leadership experience increases the leadership competence of men and women of all races. As leaders exhibit the agentic behavior expected and display the descriptive pattern of behavior for a leader, women increasingly will violate the prescriptive social behavior requirement that women ought to be communal (Eagly & Karau, 2002). These findings, taken together, suggest a leveling among women’s agentic deficiency as leaders over time and that Black women who are perceived as more masculine will incur less agentic penalty than White women who are perceived as more communal.

Men and women in the military have a higher rate of marriage than civilian counterparts of the same age. An assessment of marriage rates in the military at 23 years of age indicates White women are married at a rate (45%) that is 3 times that of civilian women (14%). Black women are married at a rate of (38%), and 6 times the rate of
civilian counterparts (6%) at the same age (OUSD/P&R, 2018a). According to Cheng (2016), the higher marriage rate of White women should result in a reduction in the wages and the participation of White women over Black women. The similar pattern of participation in Figure 5.2 and the wage impact of married women found by Cheng, when combined with the cultural norms and expectations of women described by the social role theory and role congruity theory, suggest differentiated career influences among women in the U.S. Army.

Economic stability and cultural norms influence the employment pattern of women. Lu, Wang, and Han (2017) examined the employment patterns of women after childbirth and found Black women are more likely to remain employed than White women. White women have greater access to economic wealth than Black women through marriage and inheritance. Further, evaluating the only racial or ethnic overrepresentation of women in the U.S. Military, Melin (2016) indicated the representative population of Black women entering active military service is more than twice their representation in the civilian population (31% compared with 15%, respectively). Melin also posited contributing factors include (a) a lack of wealth compared to nonminority women, (b) economic hardship as head of household, (c) unemployment rate, (d) low-wage job opportunities, (e) lack of healthcare access, and (f) lack of familial safety net. Linked to women in general within the military, Segal et al. (2016) highlighted the lower rate of women (36%) having children compared to men (48%) in the military and the higher likelihood of women being a single parent (by as
much as 3 times that of men). These findings suggest that Black women are more likely to remain employed in the military for economic reasons when compared to White women in the military.

**Maneuvering integration obstacles.** Women employ integration-obstacle coping skills differently. In addition to employing coping strategies when faced with integration obstacles, interview participants also chose avoidance of known hostile environments rather than enduring discrimination. When a supervisor displays a potentially sexist behavior, operations case participants described actions to avoid working for the individual or to avoid the environment altogether in the future when possible. In discussing previous research on confronting and reducing sexism, Becker, Zawadzki, and Shields (2014) highlighted the potential costs of such confrontations. Force sustainment case participants reported the practice of correcting the sexist behavior of superiors. Interview participants recalled correcting men in public and in private in a way that was not perceived as aggressive and referred to the practice as “checking someone.” A collection of interview participant responses, produced in Table 5.6 and Table 5.7, link to key moderators that improve the integration of women and includes a description of actions specifically used within each case. Multiple practices listed in Table 5.6 are shared among the participants in the areas of enduring obstacles and coping.
Women in the U.S. Army employ the practice of enduring a gender-based barrier and the opposite practice of avoiding a known barrier when faced with a gender integration obstacle. Working through known obstacles, interview participants described the need to fit in and assimilate. As integrated team members choosing to endure gender-based obstacles, interview participants seemed to have adopted a reduced sensitivity to acts of sexism and discrimination. Initially, denials

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### Table 5.6

*Common Moderators to Integration Obstacles*

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Common Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endure Obstacle</td>
<td>Assimilate; Deny gender and integration barriers are present; Stop menstrual cycle while deployed</td>
</tr>
<tr>
<td>Evade</td>
<td>No common trend of actions identified</td>
</tr>
<tr>
<td>Check It</td>
<td>No common trend of actions identified</td>
</tr>
<tr>
<td>Coping</td>
<td>Have mentors; Men and women as mentors; Find a mentor with a similar career path</td>
</tr>
</tbody>
</table>

### Table 5.7

*Case Specific Moderators to Integration Obstacles*

<table>
<thead>
<tr>
<th>Moderator</th>
<th>Operations Case Action</th>
<th>Force Sustainment Case Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endure Obstacle</td>
<td>Arrive early to the unit to avoid reassignment; Prove yourself</td>
<td>Fit in; Assimilate to the culture</td>
</tr>
<tr>
<td>Evade</td>
<td>Avoid sexist leaders/people</td>
<td>Correct sexist behavior; Enforce standards to increase credibility</td>
</tr>
<tr>
<td>Check It</td>
<td></td>
<td>Correct sexist behavior; Enforce standards to increase credibility</td>
</tr>
<tr>
<td>Coping</td>
<td>No case specific actions identified</td>
<td></td>
</tr>
</tbody>
</table>

**Endure obstacle or evade.** Women in the U.S. Army employ the practice of enduring a gender-based barrier and the opposite practice of avoiding a known barrier when faced with a gender integration obstacle. Working through known obstacles, interview participants described the need to fit in and assimilate. As integrated team members choosing to endure gender-based obstacles, interview participants seemed to have adopted a reduced sensitivity to acts of sexism and discrimination. Initially, denials
of any gender-based barriers followed by descriptions of sexist acts and gender discrimination. Interview participants reserved labeling of obstacles for acts that fit the definition of hostile sexism suggest assimilation to the culture and desensitization of gender-based barriers deemed less harmful. Participants from the operations case described the opposite strategy of avoidance of known sexist environments, even if it meant delaying necessary STEP requirements (U.S. Army, 2016a) for selection to the rank of Sergeant Major. Interview responses suggest that women in the Army employ assimilation as a moderator most often, endure gender-based obstacles, and, when possible, evade known sexist leaders or organizations.

Check it. Confronting sexual harassment shifts power over the situation to women. Women stated that, on multiple occasions, when a senior ranking offender engaged in sexual harassment, the behavior was confronted or “checked.” Women described such confrontations as calm, maintaining an even emotional demeanor while correcting male counterparts and superiors. The goal of the confrontation was to alter future behavior. In Becker and Barreto’s (2014) research on confronting sexism, the authors found that nonaggressive confrontation provided a low threat to women and an appropriate level of threat for men. Aggressive confrontation can have social costs and contribute to the stereotypical views that women are emotional, potentially eroding their position as a leader (Becker et al., 2014). This research contains different responses to sexism in use by women and the threat each approach might pose, suggesting the benefit
of avoidance for women in operations and calm confrontation for women serving in force sustainment occupations.

**Coping: Mentors.** Women in the U.S. Army gain career benefits from engaging with mentors. Most interview participants from both cases recommended the use of mentors as role models, advisors, and sounding boards. Exploratory research conducted by Beckwith, Carter, and Peters (2016) included mentoring as a moderator to the barriers faced by African American women in pursuit of executive positions. A previous study of mentor and role model effects by Durbin and Tomlinson (2014) included the finding that women gained career advice and psychological support from women mentors. Men mentors in the study emphasized career development without providing the added benefit of psychological support observed by women mentors. Interview participants recommended that women seek a variety of mentors, both men and women, throughout their careers in the Army. The lack of women’s mentoring in the Army inspired MSG8 to act; she recalled, “I did have an opportunity to start a female mentorship program because I noticed that that was something that was needed for the younger soldiers.” As a coping mechanism and moderator of gender-based barriers, the dialectic interaction between case participants and a mentor was essential to the benefit and experience of having mentors. Therefore, it seems all women could benefit from mentors regardless of their race, rank, or occupation functional area and may gain the benefit of psychological support from female mentors.
Women in the U.S. Army benefit from the use of multiple moderators of gender-based barriers. Career planning, adapting communication, and assimilation are some of the many strategies that benefit women in the Army. Returning to the mixed methods question, combining the findings and conclusions of these three themes highlights how and in what variations enlisted women use moderators of cultural, gender-based barriers in the Army by race, rank, and occupation functional area.

**Application of Findings and Conclusions to the Problem Statement**

Study findings include techniques, strategies, and practices, which were identified by women selected for senior leadership positions in the U.S. Army, as moderators of gender-based barriers. Interview participants presented moderators as beneficial to women in the areas of (a) promotion, (b) participation, and (c) integration. Shared lived experiences of various career barriers provided context for the application (i.e., the how) of moderators and highlighted three behaviors as most effective: (a) assimilate to the culture, (b) maximize civilian education, and (c) communicate self-agency. To reduce career barriers related to gender, interview participants also shared their thoughts on what men need to know about women in the U.S. Army. If shared among men and women in the Army, the findings can increase awareness of gender-based barriers generated by men and increase the understanding of how women use moderators to reduce the adverse effects of such barriers. When combined, the dissemination and employment of the findings and conclusions in this research add value to the understanding of moderators of gender-based barriers in use, as the Army integrates women across the force, and may
contribute to the increased success and representation of women in senior leadership positions.

**Promotion**

Women employ multiple moderators of gender-based barriers to increase the potential for promotion. Education, career planning, planning for children, and volunteering are among the most referenced moderators described by interview participants. Women from both cases described various moderators; however, force sustainment participants described the use of multiple moderators well over the variety reported by operations case participants. More likely to support having children, force sustainment case participants developed additional strategies to address gender-based barriers related to having children.

Interview participants evaluated individual CMFs for trends among their peers and identified civilian education degree attainment as a moderator. Limited assignments to leadership positions were perceived by interview participants as a potential disadvantage when evaluated for promotion. Ryan et al. (2016) conducted a review of research and documentation related to the prevalence of women placed in precarious leadership positions. Like many of the participant experiences, Ryan et al. reported on the reduced access of women to leadership positions. Interview participants also described policy obstacles to integration that denied the opportunity of women to hold leadership, or other coveted, positions. However, participants did not recall any “glass cliff”-type leadership assignments to organizations at risk of failure, as described by Ryan et al. To
differentiate promotion board files, women completed multiple civilian degrees with minority women seeking more civilian advanced degrees than nonminority women in the U.S. Army. Women who engaged in the attainment of education above their peers and completed advanced civilian degrees applied their knowledge to written communications, technical expertise in their occupational field, and the ability to relate and communicate verbally with counterparts (Commissioned Officers).

**Planning for children.** When women plan a career in the U.S. Army, plan to have children while in the Army and desire to attain the highest enlisted pay grade, there is benefit in using of moderators to gender-based barriers. Volunteering for overseas deployments and hardship assignments that have family restrictions before marriage and children reduce the potential for work-family conflicts. Delaying having children or not having children at all in the Army reduces or eliminates the challenges of pregnancy described by interview participants navigating the STEP concept (U.S. Army, 2016a). Given these findings, the various moderator used by women include delaying having children (so they can focus on establishing their career in the Army) and planning their pregnancies around promotion requirements to ensure they are promoted to higher pay grades before having children.

**Participation**

Until the U.S. Army completes the GIS recommendation made by Arnhart et al. (2015) to “focus attention on the Professional Ethics and Warrior Ethos, reinforce the positive aspects of the combat arms culture, and aggressively root out unprofessional
behavior and traditions” (p. 45), women will continue to face participation challenges in the Army. Examination of militarized masculinity by Eichler (2014) connected the national culture association of the military to masculinity. The national culture described by E. H. Schein and Schein (2017) as a macroculture is one of three cultural levels. Unprofessional behavior at the two remaining cultural levels of subculture (Army’s combat arms branches) and microculture (small units) is blamed for the perpetuation of problematic behaviors and traditions contributing to women’s integration barriers (Arnhart et al., 2015). The denials of interview participants of obstacles in the form of gender-based barriers suggest that both the pervasiveness of the Army culture and women’s assimilation to that culture over time contribute to a limited sensitivity to less harmful levels of sexism.

Women selected for promotion to the rank of Sergeant Major in the U.S. Army assimilate to the Army culture and employ moderators of gender-based barriers throughout a career. Interview participant responses indicated career rewards associated with volunteering for physically demanding occupations, assignments, deployments, and courses. They also recommended engaging in these activities at younger ages before an accumulation of injuries or a single significant injury precludes participation. Women expressed both a need to fit in and a need to distance themselves from women that exhibit stereotypical behavior to avoid work. The practice of assimilating masculine attributes and distance themselves from other women has similarities to the queen bee phenomenon as described by Derks, Laar, Ellemers, Van Laar, and Ellemers (2016). Unlike women
that demonstrate a queen bee strategy, interview participant responses did not include distancing from women in junior roles or legitimization of gender inequalities. Articulating a desire to be treated the same, interview participants from both cases reported enforcing standards, correcting women that attempt to avoid work, and displaying an intolerance for being disrespected as a leader are all examples of strategies for avoiding being perceived in stereotypically gendered ways. Expressing self-advocacy, displaying assertive behavior, building credibility through demonstrated actions, and providing contributions to the team are among the many moderators in use by women that find career success in the Army.

Integration

Findings of this study can inform U.S. Army gender integration programs. Interview participants provided numerous responses that, if shared with men in the Army, would better prepare those that want to lead all soldiers without favor or discrimination as stipulated within the Army command policy (U.S. Army, 2014b). Over 85% of force sustainment participants want men to know they should treat women the same as men and apply a single standard. Half of the participants stated men need to take the time to learn about women. A suggestion was made for men to participate in cultural research, training, and exposure like that received before deployment to a foreign country. This study included findings that addressed the gap in understanding and identified some of the barriers women face in the Army (Arnhart et al., 2015).
Finally, leadership development program enhancements can benefit from this research in terms of gender awareness and the recognition of sexism. Drury and Kaiser (2014) and Cihangir, Barreto, and Ellemers (2014) supported the argument for men to confront sexism. Confrontation would require men to have the ability to recognize sexism. Multiple studies describe the detrimental effects women incur from benevolent sexism and the likelihood that the warm delivery of benevolent sexism contributes to a dismissal of its harm (Hideg & Ferris, 2016; Hopkins-Doyle et al., 2019). Based on the findings of the current study, women in the U.S. Army can benefit from various moderators and gender training can increase cross-gender understanding, awareness of sexism, and greater equal opportunity for women in the Army.

**Application to Leadership**

The resulting new information may benefit the career planning and professional development of women in the U.S. Army. Multiple behaviors emerged from the data collected, the themes, and the subthemes that connect to leadership. These leadership specific behaviors include (a) enforcing standards, (b) providing equal opportunity, (c) communicating agency and demonstrating interpersonal skills, (d) seeking leadership opportunities, (e) pursuing individual education and self-development, (f) maintaining credibility and a positive reputation, (g) taking on tough jobs, and (h) mentoring. The case studies reported in this study included women preparing for senior enlisted leadership positions that will be the next group of Master Sergeants promoted to the highest enlisted rank of Sergeant Major in the U.S. Army. The study applies to leadership
and includes descriptions of behaviors beneficial to the attainment of leadership positions, leader behaviors that increase equal treatment of men and women, and leader behaviors that increase opportunities without regard to gender. The study included participants’ lived experiences of gender-barriers, perceptions, and insights related to their leadership experiences. Taken together, the lived experiences of soldiers was used to explore gender-based obstacles, best practices, and the most effective moderators of gender-based barriers used by women over an Army career.

At a macro level, the results, findings, and conclusions can assist women’s ascension to senior level positions within organizations outside the U.S. Army. Within the DoD and the U.S. Army, the moderators of gender-based barriers identified and presented in this study offer a variety of tools and concepts for the DoD and Army leaders to increase individual development, leadership knowledge, and career ascension. The study results can be used to inspire men to take the time to understand women better and the gender-based barriers women encounter in the Army. Further, the study results can be used to encourage women aspiring to reach the highest levels within a male-dominated career field. Understanding how senior enlisted women leverage moderators to increase their potential attainment of the highest enlisted rank of Sergeant Major in the Army can encourage women to strive for and one day break through another glass ceiling and attain the historic milestone of being the first female Sergeant Major of the Army.
Recommendations for Action

U.S. Army doctrine described in the Army command policy (U.S. Army, 2014b), leader development field manual (U.S. Army, 2015), and federal laws encourage or require equal opportunity, fairness, and inclusiveness. Army leaders are required to lead without favor or discrimination. Still, 100% of the interview participants described encountering gender discrimination. Gender discrimination remains constant throughout previous and current research related to the integration of women in the U.S. Army. The DoD commissioned research by RAND (Asch et al., 2016), the Army GIS (Arnhart et al., 2015), and the women in combat symposium (Tepe et al., 2016), which all included the identification of gender-related career barriers faced by women in the Army. The DoD military equal opportunity differs from civilian equal opportunity laws. The Diversity Management and Equal Opportunity in the DoD (2016) is defined as follows:

The right of all service members to serve, advance, and be evaluated based on only individual merit, fitness, capability, and performance in an environment free from harassment, including sexual harassment, and unlawful discrimination on the basis of race, color, national origin, religion, sex (including gender identity), or sexual orientation. (p. 14)

Failure to enforce military equal opportunity is counter to the virtue ethics approach of doing the right thing. Setting aside the known presence of ambivalent sexism, leaders may feel justified in discriminatory actions against women through the practice of utilitarianism to justify a perceived benefit for the most people. The DoD is over 3 years beyond the order by Secretary Carter (2015) to fully integrate women in the Armed Forces by 2016 without exception, suggesting the combination of regulations, directives,
and orders conflicts with something culturally ingrained within individuals serving in the Army.

**Ethical Action for Injustice**

Analysis of gathered data within this study supported the existence of gender inequality in the U.S. Army, and the continued injustice directed at women as an oppressed and marginalized group requires action. The identification of moderators used by women to overcome gender-based barriers provided additional evidence of the social inequity in the U.S. Army. As soldiers entitled to an environment free from unlawful discrimination on the basis sex (DoD, 2016), women should not have to engage in gender-specific practices to counter traditional, conservative attitudes and bias held by many male soldiers in the Army (Arnhart et al., 2015). Interview participants described multiple moderators of gender-based barriers that require women to change their behavior based on the stereotypical beliefs of others. The burden should not be placed on women in the Army to modify their behavior, actions are necessary to modify the unjust stereotypical beliefs of others. Suggestions to implement new programs like implicit bias education programs, as provided by Laurence et al. (2016) in their examination of support for women in the military, may not affect deeply held beliefs and traditions. Action at the justice level of right and wrong, beyond a virtuous approach to do the right thing, can increase awareness of the bias inherent in the traditional values held by many men in the Army.
The findings of this study add to the support of Jensen’s (2016) argument for the use of a Rawlsian approach in the U.S. Army to create equal opportunity regardless of gender and to protect the most vulnerable. In its first principle, Rawls’ theory of justice, like the DoD military equal opportunity, includes equal opportunity without regard to social standing among each person with equivalent traits, abilities, and desires. As a military manpower analyst for the Congressional Research Service, Kamarck (2016) described the suspension of the combat exclusion rule that limited opportunities for women in combat fields. Kamarck included gender-neutral standards as a key issue for Congress, citing required oversight of definitions, requirements, validation, and implementation. Nearly 60% of interview participants commented on the desire for the equal treatment of men and women and the enforcement of one standard. Interview participants did not seek an advantage nor did they express that standards should be lowered. In fact, multiple interview participants advocated for the increased accountability of women who do not perform to standard. The utilitarian approach combined with the culture of traditional values (Arnhart et al., 2015) contributes to benevolent sexism and may perpetuate a feeling of justification for not following the DoD Directive on MEO. The TRADOC within the U.S. Army can incorporate a Rawlsian approach to ethical decision-making training for soldiers with emphasis placed on equal opportunity, equal treatment, and the standing military equal opportunity directive.
**Strategic Messaging**

The GIS conducted by the TRADOC and previous DoD commissioned data analysis resulted in the identification of five barriers to the successful integration of women (Arnhart et al., 2015). One of the five identified barriers addressed cultural stereotypes as a barrier within MOSs and units previously closed to women. Traditional values are known to exist and contribute to a variety of gender-based stereotypes and the practice of benevolent sexism. Multiple interview participants in both cases experienced traditional values of men believing in their chivalrous duty to protect women.

The study of benevolent sexism conducted by Jones et al. (2014) contained a description of the negative performance impacts associated with the gender helping practice of benevolent sexism and provided evidence of harm to women’s self-efficacy. Interview participants identified communicating agency as one of the most effective moderators of gender-based barriers. Jones et al. also described the increasing degree of harmful effect on self-efficacy in work settings, and the even more damaging effect when a male superior engages in benevolent sexism. Going beyond the adverse effect on women’s confidence and ability to speak on their own behalf, the equal opportunity for women can be impacted by those observing a victim of benevolent sexism. The GIS included the recommendation for the Army to address stereotypes of men and women (Arnhart et al., 2015) with no specificity to address any one of the five barriers to integrating women. An Army strategic communications campaign is recommended as a more appropriate means to address this widespread challenge.
As part of a strategic messaging campaign, or as an element of focused education, gender training within the U.S. Army is necessary for both men and women. A significant portion of the approach for U.S. Army leaders, the GIS, and the Army gender integration plan is to rely on the professionalism and discipline of soldiers. This approach fails to inform soldiers why they feel the way they do about women in the Army and does not address the many areas identified by interview participants regarding what men need to know. Just as basic training introduces recruits to the fundamentals of drill and ceremony, soldiers must learn the fundamentals of gender differences. All soldiers need to understand how to avoid gendering work assignments and how to keep from re-gendering situations. Interview participants identified several aspects of women’s participation in the Army that men need to know. When the system fails to eliminate gender-based barriers, women need to know the moderators used by other women who achieved senior leadership positions. Avoidance of the topic and reliance on the profession to self-police may produce (slow) results over time and unnecessarily harm the equal opportunity and equal treatment of many. The profession can address the topic of gender quickly if it is made a priority by the Chief of Staff of the U.S. Army.

**Sexual Harassment / Assault Response and Prevention Program Training**

Adaptation of the U.S. Army SHARP and required equal opportunity annual training is also recommended. In the RAND study commissioned by the DoD on sexual assault and sexual harassment, authors Morral, Schell, Cefalu, Hwang, and Gelman (2018) found an association between military bases and organizations with concentrations
of combat units and the occurrence of sexual assault and sexual harassment. The authors of the RAND study did not identify a causal relationship between military bases and organizations and sexual assault and sexual harassment only an association. An intervention campaign with emphasis within bases/organizations with a measured increase of risk of sexual assault and sexual harassment can have a positive effect on the reduction of both sexual assault and sexual harassment. It is recommended as part of a larger SHARP campaign that the Army incorporates messaging of the detrimental effects of ambivalent sexism. Connor et al. (2016) associated the elements of hostile sexism and benevolent sexism with ambivalence toward women. Connecting SHARP training, equal opportunity training, and ethics training to message the sources of cultural stereotypes contributing to gender-based barriers, and benevolent sexism specifically, can increase equal opportunity and equal treatment of women in the U.S. Army.

**Recommendations for Further Research**

This mixed methods multiple case study of women assigned to the operations and forces sustainment functional areas was an incremental contribution to reducing the gap in understanding active moderators of gender-based barriers in the leadership literature. Available literature does not acknowledge the divergent representational trend of retention between Black and White women after the grade of E5 in the Army. Future research might explore the theory of intersectionality as applied to Black and White enlisted women in the U.S. Army to understand the differences between the two races. Further research analysis might add to the understanding of the career success observed
by Black women in the Army by comparing the potential cultural alignment between Black women and men in the Army.

It is recommended further research is conducted with women on active duty in the Army. Limitations placed on the collection of data and access to active duty soldiers, as published by DoD instructions (Kendall, 2011), required the use of related archival research data and the avoidance of interview topics or issues deemed sensitive. Administration of survey questions to study participants selected from both Lyness and Thompson’s (2000) perceived barriers to career advancement scale and Schuck and Liddle’s (2004) quality of experience scale could provide participant specific data. Also, incorporation of survey scales could lead to a better understanding of family choices and motivations to lead as related to individual selection for leadership assignments. Use of the work-family conflict scale (Somech & Drach-Zahavy, 2007) and traditional gender role beliefs scale (Yoon et al., 2015) could also provide further understanding between cases and the degree that self-motivation and barriers restrict women’s leadership assignments. Survey results and interview responses directly linked to participants and the inclusion of a wider pool of participants that includes active duty Master Sergeants would enhance future research.

The issue of marriage may also affect the retention of women in the U.S. Army. The documented race differences in wages after marriage found by Cheng (2016) and the higher rate of marriage among women in the military may explain the divergent association of participation between White and Black women in the Army. Given a more
thorough investigation of the dynamic between traditional values and monetary incentive to marry (i.e., additional housing allowance), the drop-in participation of White women in the military and why White women are not retained in the Army may be explained.

Concluding Statement

Chapter 5 consisted of a discussion of the findings and presentation of conclusions, an application of the findings to the problem statement of this research and leadership practices, and recommendations for action and future research. Through the interpretation of the results of the study, insight was gained into the moderators of gender-based barriers used by women in the U.S. Army selected for promotion to the rank of Sergeant Major, the highest enlisted rank in the Army. Convergent integration of previous analyses, data sources, and interview data combined during analysis and led to the conclusions as they related to moderators of gender-based barriers. Moderators were provided within the three themes and the three categories of (a) promotion, (b) participation, and (c) integration and originated from the first qualitative research question. The hypotheses were tested for statistical significance to determine the existence of significant group differences of women in the U.S. Army. For each hypothesis and subquestion, the null hypothesis was rejected in the analysis and the findings showed the existence of differentiated experiences recounted by the interview participants.

Findings from this study include specific behaviors found to benefit women in pursuit of selection for promotion to the rank of Sergeant Major in the U.S. Army that
can be replicated by other women. This information can be useful to women ascending career leadership positions, those with experience leading women, and men with limited or no experience leading women in the Army. Armed with an understanding that assimilation, education, and communicating agency provide the most effective benefit to women in the Army, leaders can integrate these best practices into individual development plans.
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Meetings/


APPENDIX A

Semi-Structured Interview Guide

Hi….. First I would like to thank you so much for agreeing to participate in this interview. My name is Jeff McDonald and I am a doctoral student at City University of Seattle. This research is being conducted as part of my mixed methods multiple case study dissertation to understand cultural, gender-based barrier moderators (actions, strategies, or techniques), which might contribute to enlisted women’s increased recruitment, promotion, participation, retention, and integration to attain the highest enlisted rank of Sergeant Major in the United States Army. The interview will probably take about 45-60 minutes depending on answers to each question. The purpose of this study is to explore your experiences in engaging in actions to moderate the effects of gender-based barriers and the cultural challenges specific to women in the Army. These challenges may be encountered on or off duty, at work or at home, or at the individual, organization, and Army level.

Your participation is entirely voluntary, and you may refuse to participate or withdraw at any time without negative consequences. With your permission, the interview will be recorded and transcribed. The intention of this transcribed record is to maintain an accurate account of the discussion and I will share the transcription with you to ensure accuracy. If you provide a copy of your Enlisted Record Brief (ERB) we will redact it here to ensure there is no personal identifying information on the ERB. Please be assured that your confidentiality will be maintained; no personal identification information will ever be used, and you will be referred to under a pseudonym (e.g., MSG 01, SGM 01, SGM 02).

You were provided a copy of the consent for your review and consent validated by your signature on page two. I have two copies of the consent form here and if you could review the form and sign one copy for my records, we can begin. Thank you again for your participation.

Great, let’s get started. The first question is…

1. From your experience, please describe any practice or strategy that you used to increase your chances of recruitment into the Army?

   Possible prompts: Did you continue the practice or strategy after recruitment and if so for how long?

2. Please briefly describe your assignments and duties as an active-duty soldier in the U.S. Army?

3. From your experience, please describe any gender-based obstacle you experienced as an enlisted woman pursuing a career in the U.S. Army?

   Possible prompts: When during you career did you experience them? Anything else?

4. From your experience, please describe any practice or strategy that you engaged in to increase your potential for participation in things like competitive teams, missions, or assignments?
Possible prompts: When during you career did you use the practice or strategy? Anything else?

5. From your experience, please describe any practice or strategy that you used to increase your ability to reenlist in the Army?

Possible prompts: When during you career did you use the practice or strategy? Anything else?

6. From your experience, please describe any gender-based practice or strategy that you engaged in to increase your potential for promotion in the Army?

Possible prompts: Did your use of the practice change over time?

7. From your experience integrating into the Army as a woman, please describe any practice or strategy that you used to increase your acceptance as a valued member of a team?

Possible prompts: When during you career did you use the practice or strategy? Anything else?

8. Reflecting on your experiences, what was the most difficult gender-based obstacle you had to overcome during your Army career?

Possible prompts: How did you overcome the obstacle?

9. What about integrating women in the Army do you think more men should understand?

10. If you could go back in time and do anything differently, can you describe any gender specific strategies or practices that you would employ differently to improve your career experience?

11. What advice would you give to women aspiring to make Sergeant Major in the Army?

12. What advice would you give men that are serving with or leading women in the Army?

13. Understanding the purpose of this study, is there anything else you would like to add or share that we have not covered?

The following deeper questions may be used by the researcher to encourage a more in-depth response:

- Why?
- How?
- Can you tell me more about ________?
APPENDIX B

2015 U.S. Army Gender Integration Study

17 identified factors expected to affect the integration of women in the U.S. Army.

Major Factors

1. Physical Standards
2. Pregnancy
3. Sexual Harassment
4. Sexual Assault

Intermediate Factors

5. Combat Arms Unit Culture
6. Field Environment
7. Fraternization
8. Consensual Sex
9. Stereotypes About Women
10. Differences in Leadership Styles
11. Men are Protectors

Minor Factors

12. Reclassification
13. Spousal Concerns
14. Tokenism
15. Role Models
16. Physical Proximity
17. Professional Standards of Conduct
APPENDIX C

CityU Research Letter to Participants

Dear [Insert Name of Participant],

My name is Jeff McDonald and I am a doctoral candidate with City University of Seattle. I am conducting a study to understand cultural, gender-based barrier moderators (e.g., best practices, strategies, techniques) used by enlisted women in the U.S. Army. Women encounter various career barriers in the U.S. Army without a shared understanding of what active strategies are in use by other women, and how to employ them to increase their recruitment, promotion, participation, retention, and integration in the U.S. Army. Leaders at all levels that may have limited or no experience in leading, mentoring, or guiding the professional development of women may benefit from understanding moderators in use by successful women like you. The desired end state is the identification and description of active strategies over a career that contribute to the selection of women to the highest enlisted rank of Sergeant Major.

Your participation is entirely voluntary, and you may refuse to participate or withdraw at any time without negative consequences. As a participant I am asking for you to engage in an interview to be conducted preferably face-to-face, by telephone, or over Skype for approximately 45-60 minutes in length. With your permission, the interview will be recorded and transcribed. The intention of this transcribed record is to maintain an accurate account of the discussion and I will share the transcription with you to ensure accuracy. To increase understanding of your career path and reduce the length of the interview it would be helpful (not a requirement to participate) if you can provide a copy of your Enlisted Record Brief (ERB). Please be assured that your confidentiality will be maintained; no personal identification information will be used in the study. All personal information will be redacted from the ERB, if provided, and you will be referred to under a pseudonym (e.g., MSG 01, SGM 01, SGM 02).

If you are willing to participate in this study, please respond by phone, text, or by email at 910-853-1533 or jeffmcdonald@cityuniversity.edu. We will schedule the interview at a mutually agreed upon time, method, and location. The intended timeline for completion of this study is Spring 2019. If you have questions, please don’t hesitate to contact me. Also provided as an attachment to this letter is the informed consent release form that will be completed to acknowledge your consent as a participant in the study.

Thank you so much for your service, sacrifices, and support. I look forward to hearing from you and furthering this discussion.

Sincerely,

Jeff McDonald
Doctoral Candidate,
City University of Seattle
APPENDIX D

Organizational Informed Consent Form

Name of Organization: U.S. Army Sergeant Major Academy (USASMA)
Address: 11291 Sergeant E Churchill St
City, State, Zip: Fort Bliss, Texas 79918
Telephone: 915-744-8009

By signing this consent form, I understand that Jeff McDonald (the researcher) is a candidate for an advanced degree at City University of Seattle. I understand that the researcher is conducting a study entitled Moderators of gender-based barriers in the U.S. Army: How enlisted women increase their own recruitment, promotion, participation, retention, and integration. The purpose of this research is to understand cultural, gender-based barrier moderators, which might contribute to enlisted women’s increased recruitment, promotion, participation, retention, and integration to attain the highest enlisted rank of Sergeant Major in the United States Army.

I understand the findings of this research study are solely the responsibility of the researcher. It is understood that any and all information/data the researcher collects from contacts within and/or about our organization outside the research protocol will not be part of the research findings. I understand the researcher may publish findings following completion of this study. Any information published will be limited to the findings of the research. No research participants will participate in this study without organization and City University of Seattle Institutional Review Board (IRB) knowledge and approval.

☑️ I grant the researcher permission to contact members of the organization for the purpose of requesting participation in the study as required by the research design.
☑️ I grant the researcher permission to use organizational premises as necessary to conduct the research.
☑️ I grant the researcher permission to collect, use, and store documentation related to the project under study. I understand that in granting permission to access program documentation, the researcher may store copies in a secure manner outside of the organization.
☑️ The researcher will maintain all documentation and findings regarding this organization in confidence and confine its use to this research study.
☑️ On behalf of the organization, I request a final copy of this research report.

__________________________________________________________
Organization Representative and signature and Date
Print Name and Title: CSM Jimmy Sellers
Organization: USASMA Commandant
Name of Research Supervisor or Advisor: Dr. Corey W. Johnson
Contact Information: coreyjohnson@cityu.edu or 206-239-4773
APPENDIX E

Consent Form

City University of Seattle

School of Applied Leadership

CITYU RESEARCH PARTICIPANT INFORMED CONSENT

I, , agree to participate in the following research project to be conducted by Jeff H. McDonald, a student, in the EdD Program. I understand this research study has been approved by the City University of Seattle Institutional Review Board.

I acknowledge that I have received a copy of this consent form, signed by all persons involved. I further acknowledge that I have been provided an overview of the research protocol as well as a detailed explanation of the informed consent process.

Title of Project:
Moderators of gender-based barriers in the U.S. Army: How enlisted women increase their own recruitment, promotion, participation, retention, and integration.

Name and Title of Researcher: Jeff H. McDonald, Doctoral Student

Faculty Supervisor: Dr. Corey W. Johnson
Department: School of Applied Leadership
Telephone: 206.239.4773
E-mail: coreyjohnson@cityu.edu

Program Director: Pressley R Rankin IV, PhD

Sponsor: CSM Jimmy Seller; Dr. Sena Garven, ArmyU Administrative Reviewer.

Purpose of Study:
The purpose of this multiple case study is to understand cultural, gender-based barrier moderators, which might contribute to enlisted women’s increased recruitment, promotion, retention, participation, and integration to attain the highest enlisted rank of Sergeant Major in the United States Army.

Research Participation:

I understand I am being asked to participate in this study in one or more of the following ways (the checked options below apply):

- [x] Respond to in-person and/or telephone Interview questions;
- [ ] Answer written questionnaire(s);
- [x] Participate in other data gathering activities, specifically, voluntary provision of records;
Other, specifically, audio recording of the interviews to support transcribing and the collection of data (this is voluntary and may be refused or stopped at any time without negative consequences).

I further understand that my involvement is voluntary, and I may refuse to participate or withdraw my participation at any time without negative consequences. I have been advised that I may request a copy of the final research study report. Should I request a copy, I understand I may be asked to pay the costs of photocopying and mailing.

Confidentiality
I understand that participation is confidential to the limits of applicable privacy laws. No one except the student researcher, his supervisor and Program Director will be allowed to view any information or data collected whether by questionnaire, interview and/or other means. All data (the questionnaires, audio/video tapes, typed records of the interview, interview notes, informed consent forms, computer discs, any backup of computer discs and any other storage devices) are kept locked and password protected by the researcher. The research data will be stored for five years (or more if required by local regulations). At the end of that time all data of whatever nature will be permanently destroyed. The published results of the study will contain data from which no individual participant can be identified.

Signatures
I have carefully reviewed and understand this consent form. I understand the description of the research protocol and consent process provided to me by the researcher. My signature on this form indicates that I understand to my satisfaction the information provided to me about my participation in this research project. My signature also indicates that I have been apprised of the potential risks involved in my participation. Lastly, my signature indicates that I agree to participate as a research subject.

My consent to participate does not waive my legal rights nor release the researchers, sponsors, and/or City University of Seattle from their legal and professional responsibilities with respect to this research. I understand I am free to withdraw from this research project at any time. I further understand that I may ask for clarification or new information throughout my participation at any time during this research.

Participant’s Name: ______________________________
Please Print
Participant’s Signature: ______________________________ Date: ___________

Researcher’s Name: Jeff H. McDonald

Researcher’s Signature: ______________________________ Date: ___________

If I have any questions about this research, I have been advised to contact the researcher and/or his/her supervisor, as listed on page one of this consent form.

Should I have any concerns about the way I have been treated as a research participant, I may contact the following individual(s): Dr. Pressley Rankin, Program Director, City University of Seattle, at 521 Wall St. Seattle, WA, 98121, 206-239-4769, rankinp@cityu.edu.