Draft Research Report

# Considerations for Integrating Women into Closed Occupations in the U.S. Special Operations Forces

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# Preface

This report documents the findings of the task "Analytical support to USSOCOM regarding the future role of women in Special Operations Forces (SOF)." The task was part of the project "Enabling an Efficient and Effective Global SOF Network." The project had the goal of providing analytical assistance to USSOCOM concerning all aspects of implementation of the future vision and operating concept put forth by USSOCOM. Task Four of the project aimed to assess the range of potential challenges to effective integration of women into SOF, bringing in the operator perspective and focusing on the unit- and team-level.

This report has two main objectives. It assesses potential challenges to the integration of women into SOF for unit cohesion, and it provides analytical support in validating SOF occupational standards for SOCOM-controlled positions. The report summarizes briefly the history of integration of women into the U.S. armed forces. It reviews the current state of knowledge about cohesion in small units and discusses the application of gender neutral standards to SOF. It identifies widely-agreed on professional standards for validation of physically-demanding occupations and assists SOF service components with the application of these standards to SOF occupations. The report discusses the primary data -- a survey of SOF personnel and a series of focus group discussions -- collected by the research team regarding the potential challenges to the integration of women in SOF. The final chapter discusses the findings of the task and presents some recommendations on potential implementation. The findings of this report should be of interest to those in the U.S. defense community with an interest in manpower and personnel issues and in the evolution of U.S. SOF.

This research was sponsored by USSOCOM and conducted within the Forces and Resources Center of the RAND National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense Intelligence Community. The overall project, as well as research on other tasks that were a part of the project, was conducted within the International Security and Defense Policy Center of the RAND National Defense Research Institute.

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# Abstract

The elimination in 2013 of the Direct Ground Combat Definition and Assignment Rule potentially has opened to women some 15,500 SOF positions in specialties such as Special Forces, Rangers, and SEALs. Potential integration of women into SOF raises a number of issues pertinent to effectiveness of SOF teams, both from the perspective of physical standards as well as ensuring the readiness, cohesion and morale essential to high performing teams. This report has two main objectives. It assesses potential challenges to the integration of women into SOF for unit cohesion, and it provides analytical support in validating SOF occupational standards for SOCOM-controlled positions.

Based on our survey of SOF personnel, opposition to opening SOF specialties to women is both deep and wide, with high levels of opposition across all SOF elements. This opposition is also deep-seated and intensely felt. The principal sources of this opposition are: the belief among SOF that women do not have the physical and other capabilities to meet the demands of their SOF specialties; the belief that the current, high levels of cohesion and trust in their units will suffer if women are allowed in; and the importance SOF personnel attach to maintaining high standards, coupled with deep concern that performance standards may nonetheless be lowered to enable women to qualify for their specialties. These survey results are supported and complemented by the results of our focus group discussions with SOF personnel.

It is important to note that these findings reflect SOF personnel's speculation as to the impact of the integration of women into SOF, rather than actual experiences of SOF personnel, because women are not in those units. Similar concerns were voiced in prior integrations of excluded groups, including the integration of women into other units and occupations. These challenges to the potential integration of women into SOF are not insurmountable and much depends on the implementation process.

When looking across our study findings, the following principles are particularly relevant to informing USSOCOM's implementation planning regarding the potential integration of women into SOF specialties and units: 1) leadership is key to integration success, 2) the implementation process is critical to long-term integration success, 3) valid, gender-neutral standards can facilitate integration, 4) targeted recruitment and adequate preparation of female candidates is needed, 5) deliberate pace of integration is important , 6) integration progress needs to be monitored and assessed over time, and 7) expectation management is a critical component of success.

Aside from these principles, the issue of establishing gender-neutral standards is a critical component of successful potential integration of women into SOF. We describe a framework for the SOF service components for establishing gender-neutral standards that builds on best

practices applied to civilian organizations and federal agencies. The framework provides conceptual clarity and a set of unifying themes across the SOF service components.

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# Summary

## Background and Objective

In January 2013, the Secretary of Defense and Chairman of the Joint Chiefs of Staff announced the rescission of the 1994 Direct Ground Combat Definition and Assignment Rule (DGCDAR) and their intention to integrate women into occupational fields to the maximum extent possible and in accordance with validated, gender-neutral occupational standards. The Services and USSOCOM were required to integrate women into newly opened positions no later than January 1, 2016 or to request exemptions to the policy. The rescission potentially opened approximately 15,500 SOF positions controlled by USSOCOM that have been closed to women by specialty: the Air Force's Combat Controllers (CCTs) and Special Operations Weather Team specialists (SOWT); the Army's Special Forces (SF) and Rangers; the Marine Corps' Critical Skills Operators (CSOs); and, the Navy's Sea, Air, Land commandos (SEALs) and Special Warfare Combat Crewmen (SWCC). *This report deals with the issue of the potential integration of women into the seven SOF military occupations that have been closed to women by specialty*. In line with the rescission of DGCDAR, *integration* refers to the opening up of all SOF occupations and units to women, based on the application of gender-neutral standards.

SOF personnel operate in small, geographically isolated, self-contained teams for lengthy periods of time, often covertly, in austere conditions, and in extremely dangerous operational environments. Potential integration of women into SOF units raises a number of issues pertinent to the effectiveness of such teams, both from the perspective of physical standards as well as ensuring the readiness, cohesion and morale essential to high performing teams.

Consequently, USSOCOM asked RAND's National Defense Research Institute to assist in identifying potential challenges that may arise if women are integrated into SOF military occupations entirely closed to women by specialty. This study had two main objectives: 1) assess potential challenges to the integration of women into SOF for unit cohesion, and 2) provide analytical support in validating SOF occupational standards for SOCOM-controlled positions. This report summarizes our research, analysis, and conclusions. We used a mixed-methods approach. We reviewed the current state of knowledge on small unit cohesion and effectiveness. We identified widely-agreed on professional standards for validation of physically-demanding occupations and then assisted SOF service components with the application of these standards to SOF occupations. We also collected primary data in order to bring in the operator perspective. We conducted a census-type survey of personnel currently serving in the positions closed to women by specialty, focusing on the potential challenges to the integration of women into SOF. We supplemented the survey with information from focus group sessions that we conducted with participants from all SOF service components.

The purpose of this research was to inform USSOCOM about the depth and extent of potential challenges to the integration of women into SOF positions so far closed to women as one input to USSOCOM leadership making a decision on how to proceed. As such, we have focused on the potential challenges and problems to the full integration of women into SOF and placed the potential policy change in the context of previous integrations of out-groups into the military. We also note below that all of the challenges we identified have come up previously, none of them proved insurmountable, and the key to successful prior integrations was the implementation program. If USSOCOM makes the decision to proceed, lessons from the previous integrations may be useful to draw on in informing a USSOCOM implementation plan. Below we sketch out the basic guidelines for such an implementation plan; we keep the guidelines purposely concise. Expanding on these guidelines is an appropriate step after a policy decision is made, and if such a decision is in the affirmative.

## Main Challenges

Two main challenges have been central to debates about the potential opening of SOF specialties to women: 1) questions regarding the sufficiency of the physical and/or mental abilities of members of the excluded group to cope with the tasks assigned to the unit; and 2) the impact of the entry of the excluded group on the cohesion, trust, morale, discipline, and the general efficient functioning of the unit.

To address the question of women's abilities to meet SOF standards, we examined research exploring differences between males and females on physical ability and motor skill tests. On these dimensions, on average, males generally outperform females. These differences begin to expand following puberty and may be partially influenced by environmental factors. That said, although there are often large differences between men and women, primary emphasis must be placed on an individual's capabilities to perform critical tasks and individual risks for developing an injury. Just as very few men succeed in qualifying for SOF and the ones that do are in the tail of the distribution, the same is likely to apply to women, if they are allowed to enter SOF specialties. Average differences between overall populations are not good indicators for understanding readiness for SOF. For purposes of understanding the relevance of physiological differences in the ability of women to qualify for SOF specialties, in almost all cases, additional screening (e.g., physical ability test) will be a better indicator of performance and risk of injury compared to simply knowing whether one is a male or female.

We also examined sex and gender differences in stress response to understand the physiological reasons that may affect women's suitability for the extremely stressful environments in which SOF sometimes operate. Men and women respond to stress differently, although much depends on the specific stressor and context. Just as with physical ability, individual differences and prior experiences have a greater impact on stress response than sex or gender. Additional screening will be a better indicator of stress response than broad distinctions

along male-female lines. Stress response can be altered as individuals learn from experience and from specific training designed to cope with specific stressors.

Cohesion is a fundamental dimension of unit effectiveness in the military and the concept is especially relevant to the types of operations in which SOF engages and the way SOF teams operate. There are two main dimensions to cohesion: task cohesion and social cohesion. Task cohesion, which captures the extent to which unit members share a common goal and coordinate their efforts to achieve it, enables units to work together effectively as a group to accomplish their missions. Task cohesion has long been recognized as a key contributor to unit effectiveness. Social cohesion, which we define broadly as the extent to which unit members like one another, trust one another, and provide social support for one another, may also increase SOF units' effectiveness indirectly. Evidence that social cohesion affects unit performance directly is mixed but analysts have found that social cohesion can strengthen individual unit members' resilience, enabling groups to perform tasks effectively in stressful environments, and reducing the probability that unit members will experience mental distress in the aftermath of their operations.

Integrating women into SOF units has the potential to reduce unit cohesion if female special operators are not perceived as competent and are not accepted as full members of their teams. Women's acceptance on teams will reflect their actual and perceived ability to perform team tasks, other team members' willingness to accept women on the team, and leaders' efforts to promote integration. Male unit members' perceptions of women's performance and competence may be influenced by many factors, such as actual performance, the quality of members' prior experience working with women, and potential biases in assessing women's capabilities. Male unit members' beliefs about the standards to which women are held will also influence their perceptions of women's competence.

## Findings from the Survey and Focus Groups

We designed and administered a survey to gauge the extent of potential challenges to the integration of women into SOF among the personnel in USSOCOM-controlled positions that have been closed to women. To complement the survey, add richness, and gain a more nuanced understanding of the potential challenges, we conducted a series of focus group discussions with SOF personnel. Both the survey and the focus groups involved all the SOF service components and all SOF specialties closed to women.

The main finding in both our survey and focus group analyses is that there is strong, deep-seated, and intensely felt opposition to opening SOF specialties that have been closed to women. Overall, 85 percent of survey participants opposed letting women into their specialty, and 71 percent opposed women in their unit. Although opposition exists across all services, elements, specialties, and rank groups, SEALs, AFSOC Special Tactics Team members, and Non-Commissioned Officers (NCOs) appeared most strongly opposed. The dominant perspective across the focus groups was that women should not be integrated into SOF units and specialties,

with potential impact on mission effectiveness and their continued ability to function as a highly performing team central to participants' concerns.

SOF personnel identified three main concerns unit effectiveness that might ensue from integrating women into SOF units. First, many SOF personnel were concerned that standards would fall. Second, many SOF personnel were concerned that integrating women into SOF units would erode unit cohesion. Third, many SOF personnel were concerned that integrating women into SOF units would reduce the availability of leaders to resolve conflict between unit members (e.g., leaders might be less willing to engage in managing conflict between males and females in an integrated unit than in an all-male unit)

SOF personnel also raised other concerns, ranging from the potential impact on working with some foreign partners, to complications in family life stemming from lack of privacy and close physical contact among team members that now would include women. Many of the issues brought up in the focus groups focused on the impact of female medical issues (higher injury rates, hygiene and increased risk of infections in austere operational environments, menstruation and impact on performance) and the deployability of women (pregnancy, restrictions on utilization of women in some missions) on unit readiness. Some survey respondents and focus group participants also expressed concern about the retention of experienced men in SOF and about the recruitment and retention of women.

Despite the concerns most survey and focus group participants raised about potentially integrating women into SOF units, some participants also highlighted potential benefits integrating women into SOF units might provide. About four in ten survey respondents agreed that women might be helpful in conducting sensitive operations, and communicating with local populations. Accordingly, there is higher support, based upon mission requirements, for attaching women in other specialties to SOF units, and higher support for opening SOF *units* to women, than there is support for opening currently closed SOF *specialties* to women.

We note an overarching caveat to the findings from our survey and focus group analyses. Our effort was designed to elicit speculation as to the impact of the integration of women into SOF so as to gauge the extent of challenges and a deeper understanding of the concerns of SOF personnel. This speculation was not based on actual experiences of SOF personnel, because women are not in those units. Thus, the response is based on what SOF personnel believe might happen and those views are influenced by many factors, including the perceptions of their own elite status, views of women in society, limited observations of women under fire, and feelings toward organizational change, to name just a few. Moreover, debates over military personnel policy take place in the political realm. Our data collection did not happen in a vacuum; instead, the intense level of feelings on the issue of the integration of women into SOF may be a symptom of the highly charged political environment on this issue and reflect the fact that SOF personnel were given an opportunity to weigh in on the issue.

## Implications

Based on our analyses, the challenges facing USSOCOM, should it decide to integrate women into SOF units, are real and multifaceted, but none of them is insurmountable. The key to successful integration of out-groups is the implementation process. A successful integration of women into SOF occupations will require transparency, effective leadership and communication, monitoring of progress, and openness to innovation, flexibility, and adaptability. Even with all of the above, the process still is likely to face major challenges because of the depth and scope of opposition and concern among the force. As USSOCOM considers near-term and long-term integration priorities, the mechanisms put into place will need to be flexible enough to accommodate learning and adjustments through strategies such as phased implementation or systematic experiments. Finally, putting the systems in place to enable the collection of the appropriate data throughout the integration process will ensure that progress can be tracked and that improvements can be made over time.

When looking across all of our study findings, the following areas are particularly relevant to informing USSOCOM's implementation planning regarding the potential integration of women into SOF specialties and units:

- Leadership is key to integration success. Most of the concerns among SOF personnel are leadership challenges. These include command climate issues such as the tone set during the integration process, as well as enforcing good order and discipline to prevent issues of misconduct that can have a negative impact on cohesion. Leadership can also put in place policies to identify quickly problems that may arise during implementation.
- The implementation process is critical to long-term integration success. To ensure long-term viability, USSOCOM will need to put in place practices to promote the successful integration of qualified women. This includes developing and fostering an equitable organizational culture, which includes providing ample opportunities for women to demonstrate their competence. Associated with this, USSOCOM and the SOF service components will need to establish practices to limit the social isolation of women in SOF.
- Valid, gender-neutral standards can facilitate integration. Much of the opposition to integrating women into SOF specialties and units is rooted in concerns regarding mission effectiveness (e.g., about women not being able to physically perform the necessary tasks for the job). However, these concerns can be addressed by establishing and validating gender-neutral standards and implementing training programs that prepare female candidates to meet those gender-neutral standards.
- Targeted recruitment and adequate preparation of female candidates is needed. Many of the concerns expressed by SOF personnel center on doubts about women being able to perform adequately the necessary physical tasks. Our findings also indicate that the low assessment of the abilities of women is often based on experiences with military women who did not have the same training and preparation as men. Providing female candidates adequate preparation to meet gender-neutral standards could go a long way in enabling women to earn the respect and trust of their SOF teammates.
- Deliberate pace of integration is important. Given the differences in mission, equipment, operational environment, and culture across SOF components, USSOCOM may need to

consider a phased integration approach. Such an approach would allow USSOCOM to monitor the integration process and make adjustments as needed. This type of approach also could yield important information on the risks and benefits of integration that then could be applied to subsequent integration efforts as they are expanded.

- Integration progress needs to be monitored and assessed over time. Monitoring and assessment will allow for quick identification of problems and addressing them on a timely basis. The overall measure of outcome would be unit performance. Potential categories to monitor over time include: unit readiness, female career development, attrition, rates of misconduct, and cohesion and morale.
- Expectation management is a critical component of success. One of the most important aspects of expectations management is the number of women that are expected to join SOF if these positions are opened to them. The experiences of allied militaries indicate that those that have general purpose combat arms positions open to women also have few women serving in those positions. From this perspective, the anxiety felt by SOF personnel about a large influx of women in a short period of time and a consequent altering of intra-unit dynamics may be unfounded. The process may be gradual and a change may come over a generation.

Given the extreme physical requirements associated with SOF, if USSOCOM opens up all the SOF occupations to women, the number of women likely to enter SOF is likely to be limited in the foreseeable future. But it is not a given that all SOF require such high levels of physical prowess and the importance of physical prowess in the fulfillment of SOF missions may change in the future. In fact, future SOF operating concepts that imply greater persistent forward presence, interaction with partners, and more preparation of the environment, all entail potential additional roles for women in SOF. Our survey and focus group findings indicate some receptiveness among SOF personnel to a highly trained cadre of SOF enablers, including females, that would be a repository of niche capabilities and could be utilized as needed to exploit opportunities. These enabler roles, open to men and women, could provide additional mechanisms to recruit highly skilled and motivated personnel to SOF.

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# Abbreviations

| | |
|---|---|
| ACL | anterior cruciate ligament |
| ACTH | adrenal corticotrophic hormone |
| AFSOC | Air Force Special Operations Command |
| AIC | Akaike Information Criterion |
| AVF | All Volunteer Force |
| BCT | Basic Cadet Training |
| BUD/S | Basic Underwater Demolition / SEAL |
| CART | Classification and Regression Tree |
| CBRN | Chemical, Biological, Radiological, and Nuclear |
| CCT | Combat Controller |
| CRH | Corticotropin releasing hormone |
| CSO | Critical Skills Operators |
| CST | Cultural Support Teams |
| DACOWITS | Defense Advisory Committee on Women in the Services |
| DADT | Don't Ask, Don't Tell" |
| DGCDAR | Direct Ground Combat Definition and Assignment Rule |
| DSM-V | Diagnostic and Statistical Manual of Mental Disorders |
| EPCP | Expected Percentage Correctly Predicted |
| EPRE | Expected Percentage Reduction in Error |
| ESL | English as a second language |
| FET | Female Engagement Teams |
| FID | Foreign internal defense |
| HPA | Hypothalamic-pituitary-adrenal |
| IO | Industrial/organizational |
| IOC | Infantry Officer Course |
| ITB | Infantry Training Battalion |

| | |
|---|---|
| KWIC | Key Word In Context |
| LIWC | Linguistic Inquiry and Word Count |
| MARSOC | Marine Special Operations Command |
| MARSOT | Marine Special Operations Teams |
| MHAT | Mental Health Advisory Team |
| MISO | Military information support operations |
| MOS | Military Occupational Specialty |
| MP | Military Police |
| NAVSPECWARCOM | Navy Special Warfare Command |
| NCO | Non-Commissioned Officer |
| NDAA | National Defense Authorization Act |
| NSW | Naval Surface Warfare |
| ODA | Operational Detachment-Alpha |
| OSD | Office of the Secretary of Defense |
| PACAP | Pituitary adenylate cyclase-activating polypeptide |
| PERSCOM | Personnel Command |
| PFT | Physical Fitness Test |
| PTE | Potentially traumatic event |
| PTSD | Posttraumatic stress disorder |
| RAND NDRI | RAND's National Defense Research Institute |
| RASP | Ranger Assessment and Selection |
| SEAL | Sea, Air, Land |
| SF | Special Forces |
| SFAS | Special Forces Assessment and Selection |
| SNCO | Senior Non-Commissioned Officer |
| SOF | Special Operations Forces |
| SOI | School of Infantry |
| SOWT | Special Operations Weather Team |
| STT | Special Tactics Teams |

| | |
|---|---|
| SWCC | Special Warfare Combatant-Craft Crewmen |
| USARIEM | United States Army Research Institute of Environmental Medicine |
| USASOC | United States Army Special Operations Command |
| USSOCOM | U.S. Special Operations Command |
| UW | Unconventional Warfare |
| WAC | Women's Army Corps |
| WO | Warrant Officer |

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# 1. Introduction

## The Context

On January 24, 2013, the Secretary of Defense and Chairman of the Joint Chiefs of Staff announced the rescission of the 1994 Direct Ground Combat Definition and Assignment Rule (DGCDAR) and the intention to integrate women into occupational fields to the maximum extent possible" (United States Department of Defense, Office of the Secretary of Defense, 2013). The 1994 DGCDAR established a direct ground combat rule under which women were "excluded from units below the brigade level whose primary mission is to engage in direct combat on the ground" (United States Department of Defense, Office of the Secretary of Defense, 1994). The 1994 DGCDAR defined direct ground combat as

> …engaging an enemy on the ground with individual or crew served weapons, while being exposed to hostile fire and to a high probability of direct physical contact with the hostile force's personnel. Direct ground combat takes place well forward on the battlefield while locating and closing with the enemy to defeat them by fire, maneuver, or shock effect.

In addition to excluding women from units primarily engaged in direct ground combat, the 1994 DGCDAR also included provisions for restricted assignments of women (United States Department of Defense, Office of the Secretary of Defense, 1994):

- where the Service Secretary attests that the cost of appropriate berthing and privacy arrangements are prohibitive;
- where units and positions are doctrinally required to physically collocate and remain with direct combat units that are closed to women;
- where units are engaged in long range reconnaissance operations and Special Operations Forces missions; and
- where job related physical requirements would necessarily exclude the vast majority of women Service members.

As put forth in the Memorandum rescinding DGCDAR, the rationale for the rescission was stated as stemming from the Secretary of Defense and Chairman of the Joint Chiefs of Staff being (United States Department of Defense, Office of the Secretary of Defense, 2013)

> …fully committed to removing as many barriers as possible to joining, advancing, and succeeding in the U.S. Armed Forces. Success in our military based solely on ability, qualifications, and performance is consistent with our values and enhances military readiness.

In addition, the Memorandum noted that thousands of women already had been exposed to ground combat and hostile enemy action in Iraq and Afghanistan and alluded to the fact that on-the-ground realities in over a decade of war had made DGCDAR less relevant.

The Memorandum rescinding DGCDAR established a timeline for the integration of women into newly-opened positions. The Services and USSOCOM were required to integrate women into newly opened positions no later than January 1, 2016 or to request exemptions to the policy (United States Department of Defense, Office of the Secretary of Defense, 2013). The Services were required to submit quarterly progress reports on their progress in implementing the rescission of DGCDAR. In addition, the Memorandum outlined the circumstances under which a position in the armed forces could continue to be closed to women (United States Department of Defense, Office of the Secretary of Defense, 2013):

> Any recommendation to keep an occupational specialty or unit closed to women must be personally approved first by the Chairman of the Joint Chiefs of Staff, and then by the Secretary of Defense; this approval may not be delegated. Exceptions must be narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills and abilities needed for the position.

The rescission of DGCDAR also included the requirement to implement "validated, gender-neutral occupational standards." Section 543 of the 1994 National Defense Authorization Act (NDAA) established the military requirement for gender-neutral standards and required that (Pub. L. 103-160, Section 543, 1993):

> In the case of any military occupational career field that is open to both male and female members of the Armed Forces, the Secretary of Defense--
>
> (1) shall ensure that qualification of members of the Armed Forces for, and continuance of members of the Armed Forces in, that occupational career field is evaluated on the basis of common, relevant performance standards, without differential standards of evaluation on the basis of gender;
>
> (2) may not use any gender quota, goal, or ceiling except as specifically authorized by law; and
>
> (3) may not change an occupational performance standard for the purpose of increasing or decreasing the number of women in that occupational career field.

The 2014 NDAA amended section 543, and redefined "gender-neutral occupational standard" to mean that (Pub. L. 113-66, Section 523, 2013):

> all members of the Armed Forces serving in or assigned to the military career designator must meet the same performance outcome-based standards for the successful accomplishment of the necessary and required specific tasks associated with the qualifications and duties performed while serving in or assigned to the military career designator.

It also mandated that, no later than September 2015, "the Services and USSOCOM should develop, review, and validate individual occupational standards, using validated gender-neutral occupational standards, so as to assess and assign members of the Armed Forces to units, including Special Operations Forces" (Pub. L. 113-66, Sec. 524, 2013).

The rescission of DGCDAR potentially has opened more than 230,000 positions in the U.S. armed forces to women able to meet occupation-specific, gender-neutral standards of

performance (Roulo, 2013). Since DGCDAR concerned ground combat, the majority of the positions affected by the rescission are in the Army and the Marine Corps. The rescission also potentially opened SOF positions -- in all four services -- that are controlled by USSOCOM.

USSOCOM, a unified combatant command, is unique in that it performs Service-like functions and has responsibilities and authorities akin to those of Military Departments. USSOCOM has the responsibility to organize, train, and equip SOF for special operations core activities and missions. The special operations core activities are: direct action, special reconnaissance, countering weapons of mass destruction, counterterrorism, unconventional warfare (UW), foreign internal defense, security force assistance, hostage rescue and recovery, counterinsurgency, foreign humanitarian assistance, military information support operations, and civil affairs operations (JP 3-05, 2014). Many of these core activities entail that SOF operate in small, geographically isolated, self-contained teams for lengthy periods of time, often covertly, in austere conditions, and in extremely dangerous operational environments. Potential integration of women into SOF brings up a number of issues pertinent to effectiveness of such teams, both from the perspective of physical standards as well as ensuring the readiness, cohesion and morale essential to high performing teams. USSOCOM's central concern is to ensure the high effectiveness of U.S. SOF in their core activities and for operations as stipulated in USSOCOM's vision of future operational employment of SOF (Szayna and Welser, 2013). Integrating women into SOF has implications for the overall mission readiness of SOF as well as for the implementation of USSOCOM's concepts of future operations.

Many women already had been serving in SOF prior to the rescission of DGCDAR. And many women had been involved in SOF operations prior to the rescission of DGCDAR. For example, women have been among the flight crews on Air Force Special Operations aircraft. The restrictions on women in SOF took two forms: 1) closed by unit; 2) closed by specialty. Closed to women by unit meant that service specialties or career fields were open to women but women in those specialties could not be assigned to some SOF formations because the units in question were likely to be involved in ground combat. Closed to women by specialty meant that the entire career field or specialty was closed to women because ground combat was an essential element of that career field or specialty. We explain the differences below.

To illustrate the effect of a position being closed on the basis of unit assignment, at the time of the rescission of DGCDAR, each of the four subordinate service component commands of USSOCOM (Air Force Special Operations Command (AFSOC), United States Army Special Operations Command (USASOC), Marine Special Operations Command (MARSOC), and Navy Special Warfare Command (NAVSPECWARCOM)) had occupations or specialties that were open to women but women were eligible only for some of the billets open to personnel in these specialties. For example, at the time when DGCDAR was rescinded, USASOC had 72 billets for Electronic Warfare specialty (Army's 29XX Military Occupational Specialty, or MOS). Of these, 37 billets (or 51.4 percent) were open to women (USSOCOM, 2013, p. 6). The other 35 billets were closed to women (and those positions were open only to men in those specialties)

because the units to which these personnel would be assigned were likely to be in ground combat. Depending on the specialty, the share of billets open to women (in the specialties already open to women) ranged from 0–97 percent. Table 1.1 provides an overview of the extent to which SOCOM-controlled positions were closed to women because of unit assignment rule, broken down by SOF service component (Appendix A presents additional information, by specialty, on all closed positions at USSOCOM).

**Table 1.1. USSOCOM Positions Previously closed to Women by Unit (March 2013)**

| Service | Total billets | Open to women | Closed to women | % Open |
|---|---|---|---|---|
| Air Force | 331 | 0 | 331 | 0.0% |
| Army | 15,086 | 7,191 | 7,895 | 47.7% |
| Marine Corps | 773 | 441 | 332 | 57.1% |
| Navy | 387 | 0 | 387 | 0.0% |
| **Total** | **16,577** | **7,191** | **8,945** | **55.0%** |

SOURCE: USSOCOM, 2013.

The positions closed on the basis of specialty consisted of the Air Force's Combat Controllers (CCTs) and Special Operations Weather Team (SOWT) specialists, the Army's Special Forces (SF) and Rangers, the Marine Corps Critical Skills Operators (CSOs), and the Navy's Sea, Air, Land commandos (SEALs) and Special Warfare Combatant-Craft Crewmen (SWCC). USSOCOM service components have the task of selecting and training personnel and ensuring they operate in cohesive and effective units. Thus, AFSOC selects and trains personnel to be CCTs and SOWT and integrates them into Special Tactics Teams (STTs); USASOC selects and trains personnel to be Special Forces and Rangers and integrates them into Special Forces A-Teams and Ranger Platoons; MARSOC selects and trains personnel to be CSOs and integrates them into Marine Special Operations Teams (MARSOTs); and the NAVSPECWARCOM selects and trains men to be SEALs and SWCC and integrates them into SEAL Platoons and SWCC Special Boat Detachments. All of the formations engage in missions assigned to them in line with the training and preparation and doctrinally outlined core activities. Table 1.2 lists the USSOCOM-controlled positions closed to women by specialty and the personnel billets for these positions at USSOCOM.

**Table 1.2. USSOCOM Positions Previously closed to Women by Specialty (March 2013)**

| Armed Service | Service Title of Specialty | Personnel | Total by Service |
|---|---|---|---|
| Air Force | Special Tactics Officer | 104 | |
| | Special Operations Weather Officer | 18 | |
| | Combat Control (Enlisted) | 561 | |
| | Special Operations Weather (Enlisted) | 120 | |
| | | | 803 |
| Army | Infantryman (Ranger Regiment) | 2,277 | |
| | Special Forces | 7,153 | |
| | | | 9,430 |
| Marine Corps | Special Operations/Critical Skills Operator | 928 | |
| | | | 928 |
| Navy | SEAL | 3,394 | |
| | SWCC | 942 | |
| | | | 4,336 |
| **SOCOM Total** | | | **15,497** |

SOURCE: USSOCOM, 2013.

Altogether, the rescission of DGCDAR had the effect of potentially opening up 24,442 USSOCOM billets to women, with 8,945 of these closed by unit, and 15,497 closed by specialty. The positions closed by specialty -- Special Forces, Rangers, SEALs, SWCC, CSOs, CCTs, and SOWT -- comprise the seven military occupations that form the core of SOF and where USSOCOM controls the capability requirements and career fields. Integration of women into these specialties would represent a change as women have not been able to enter these specialties at all. That is substantively different from the USSOCOM positions for specialties where women are already present but whose ability to deploy was constrained because of unit assignment restrictions. *This report deals with the issue of the potential integration of women into the seven SOF military occupations that have been closed to women by specialty.*

## Objectives and Approach

Following the Secretary of Defense's rescission of DGCDAR, Admiral William McRaven, the then Commander of USSOCOM put together a USSOCOM Implementation Plan for the elimination of DGCDAR.[1] One element of that plan was to ask RAND's National Defense Research Institute (RAND NDRI) to assist in identifying potential issues that may arise if women are integrated into Special Operations Forces (SOF) units. The resulting study had two

[1] See Appendix A for text of the memorandum outlining the Implementation Plan.

main objectives: 1) assess potential challenges to the integration of women into SOF for unit cohesion, and 2) provide analytical support in validating SOF occupational standards for SOCOM-controlled positions. This report summarizes our findings.

In order to carry out the two objectives, we used a mixed-methods approach. To address the first objective – assess potential challenges and obstacles to the integration of women into SOF for unit cohesion – we carried out three tasks. First, we reviewed the current state of knowledge on small unit cohesion and effectiveness. Given SOF unit characteristics and the nature of SOF operations, this task was particularly important. During the review of the literature, we focused on the potential impacts of the integration of women on task and social cohesion[2] in small units, as well as the association between social cohesion and reduced combat stress and increased individual psychological resilience.

Second, in order to understand the extent and scope of potential challenges to the integration of women into USSOCOM-controlled positions, we conducted a survey of personnel currently serving in the positions closed to women by specialty. The online survey comprised 46 questions (both closed-ended and open-ended) and was open for eight weeks from May 15, 2014 to July 15, 2014. In total, 7,618 respondents participated in the survey, for an overall response rate of just over 50 percent. We re-weighted our results to match the overall population of SOF in closed specialties and conducted a series of quantitative analyses of the closed-ended survey questions, paying particular attention to identifying the strength and extent of concerns about the integration of women into SOF among current SOF personnel. We also carried out qualitative and quantitative analyses of the open-ended questions on the survey.

Third, we supplemented the findings from our survey with information from focus group sessions that we conducted with SOF personnel currently serving in the positions closed to women by specialty. In total, we conducted 49 focus groups with SOF personnel. While the size of our focus groups varied, they usually consisted of 8-12 personnel and lasted approximately one hour. We used the same questions to structure the discussions. We conducted the focus group sessions with personnel from all of the closed specialties, with the greatest attention to the numerically largest SOF service components with closed specialties, namely Army SF and Navy SEALs. Altogether, 440 SOF personnel participated in the focus groups, with all rank groups represented; given the composition of the force, most of the participants consisted of Non-Commissioned Officers (NCOs). After all of the focus groups were complete, two RAND researchers coded all of the focus group notes in order to ensure inter-coder reliability and then analyzed those results to identify potential positive and negative impacts of the integration of women that were raised by participants across rank, grade, and SOF component.

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[2] We define task cohesion as the extent to which members share a common goal and coordinate their efforts to achieve it, and social cohesion as the extent to which members have interpersonal affinity for each other, share bonds of trust, and provide social support to one another. These definitions are presented in detail in Chapter 4.

To address the study's second objective – provide analytical support in validating SOF occupational standards for SOCOM-controlled positions – we carried out the following two tasks. First, we identified widely-agreed on professional standards for validation of physically-demanding occupations. These include professional guidelines that have been recognized in laws regulating non-military organizations. Second, we provided direct analytical assistance to the SOF service components. In this task, project staff worked with individual SOF service components in assisting them with the application of professional standards for validation of physically-demanding occupations to SOF occupations. Our assistance included reviewing current standards and observing current assessment and selection courses, including the Army's Special Forces Assessment and Selection (SFAS) and Ranger Assessment and Selection (RASP), and the Navy's Basic Underwater Demolition / SEAL training (BUD/S).

The research reported here as part of the task on "Women in SOF" began in May 2013. The bulk of the research was conducted between June 2013 - October 2014. Project staff briefed USSOCOM leadership on the progress of the project regularly, with the final briefing to USSOCOM leadership in October 2014. This report was finalized in February 2015 and revised in April 2015.

## Organization

The rescission of DGCDAR did not take place in a vacuum. It is a step in a long story of the opening of military occupations and specialties to women. In order to understand the decision and the context for it, Part I of this report, consisting of three chapters, examines the history, challenges and concerns surrounding the integration of women, as well as African-Americans and openly gay and lesbian personnel into the U.S. armed forces.

In Chapter 2 we trace out briefly the history of the integration of women in the U.S. military, focusing especially on the forces that engage in ground combat, the Army and the Marines. We also discuss the pre- and post-integration attitudes within the military regarding the integration of previously excluded groups.

SOF routinely engage in highly dangerous and physically demanding operations. Very few men are able to pass the assessment and selection standards that the various SOF components have in place in order to join these formations. The issue of whether women are physically able to meet the high standards required to join the SOF community is one of the central questions in the aftermath of the rescission of DGCDAR. Chapter 3 presents an overview of the physical ability and stress response differences between males and females. This chapter discusses the current state of the literature on how men and women compare on measures of physical ability, as well as sex and gender differences in stress response. The chapter discusses the relevance of the findings for the debate on the integration of women into SOF.

The potential negative impact on unit cohesion has been a central point in previous debates regarding the integration of previously excluded groups. Chapter 4 presents our findings from the

analysis of the potential implication of gender integration on cohesion in SOF units. This chapter reviews the literature on cohesion, including the multiple levels at which cohesion exists, the different dimensions of cohesion, and the different definitions of task and social cohesion. The chapter also identifies the implications of cohesion for unit performance, and individual members' resilience. Finally, the chapter identifies cohesion-related considerations for potentially integrating women into SOF units.

In order to understand the concerns of the SOF personnel and the potential challenges to the successful integration of women into SOF, we collected primary data. Part II of this report, consisting of two chapters, presents our findings on SOF personnel's expectations regarding potentially integrating women into SOF units. Chapter 5 focuses on our analyses from the survey we conducted with SOF personnel in USSOCOM-controlled positions. This chapter provides an overview of the survey design and how it was implemented, as well as an explanation for how the results were analyzed. Next, the chapter presents our main findings from the survey and identifies the key drivers of support and opposition to the integration of women into SOF specialties and units. Lastly, the chapter identifies conclusions and the policy implications of survey findings.

In order to complement the survey and add richness to the survey data, we conducted focus group discussions with SOF personnel in specialties closed to women. Chapter 6 summarizes those findings. This chapter presents the positive and negative expectations voiced by focus group participants regarding the potential impact of integration, as well as their concerns regarding the integration of women into SOF specialties and units. The chapter then presents our analysis of participants' concerns across rank and grade; unique concerns voiced across SOF components; concerns across mission types; and dissenting views among focus group participants. Next, the chapter presents focus groups participants' concerns regarding the potential impacts of gender integration on recruitment and retention of both males and females in SOF. Lastly, the chapter presents focus group participants' advice to policymakers regarding the potential implementation of gender integration of SOF specialties and units. Additional information on the focus group sessions is in several Appendices.

Part III of this report, consisting of two chapters, outlines potential future pathways for USSOCOM if it decides to integrate women into SOF units. Chapter 7 provides a framework for USSOCOM and the SOF service components on establishing gender-neutral standards. This framework is designed to enable military services and SOCOM to set their standards in line with the guidance on the lifting of DGCDAR while achieving maximum mission performance.

Chapter 8 presents our final observations and discusses the implications of our work for the potential integration of women into SOF. The chapter looks across all of our findings from the various tasks of the study and identifies cross-cutting conclusions. It also identifies recommendations that flow out of our findings for USSOCOM leadership regarding the potential implementation of the gender integration of SOF specialties and units.

Published separately, a series of Appendices present additional data in support of the material in the main body of the report (Szayna et al, 2015). Most of the appendices provide information on the development, planning, execution, and analysis of the survey and the focus group sessions.

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# Part I: History, Challenges, and Concerns

In this section of the report we discuss the previous integration of excluded groups into the armed forces, focusing on the recurring themes that came up: whether the members of the previously excluded group were qualified to serve and the impact of their integration on the functioning of military units. The discussion underlines the point that military personnel policy is politically determined, and the question of "who serves" is a manifestly political decision.

Chapter 2 presents a history of women's integration in the U.S. military, and a review of attitudes toward the integration of previously excluded groups in the U.S. military, including women, African-Americans and openly gay and lesbian personnel. The debates that surrounded previous integrations of excluded groups were a highly contentious component of political discourse in the United States dating back at least to the 1940s. The debates centered on two main challenges: 1) questions regarding the sufficiency of the physical and/or mental abilities of members of the excluded group to cope with the tasks assigned to the unit: and 2) the impact of the entry of the excluded group on the cohesion, trust, morale, discipline, and the general efficient functioning of the unit. Both of these issues have surfaced in the aftermath of the rescission of DGCDAR and the potential opening of SOF specialties to women. Chapters 3 and 4 provide overviews of the terms of debate for these two challenges. Chapter 3 discusses the current state of the literature on how men and women compare on measures of physical ability, as well as sex and gender differences in stress response. The chapter discusses the relevance of the findings for the debate on the integration of women into SOF. Chapter 4 reviews the literature on cohesion, including the multiple levels at which cohesion exists, the different dimensions of cohesion, and the different definitions of task and social cohesion. The chapter also identifies the implications of cohesion for unit performance, individual members' resilience, and discusses cohesion-related considerations for potentially integrating women into SOF units.

Historically, the expansion of women's roles in the U.S. military was driven primarily by the need for personnel, either to fight a total war or fill personnel shortfalls that resulted from the ending of the draft. Until the 1970s, the role of female military personnel was primarily as auxiliaries to provide nursing care or to free up men from administrative duties for combat duty during times of national emergency requiring the full mobilization of U.S. society. Since the 1970s, women's participation in the military has reflected also changes within society that have led to a greater propensity for women to choose to serve in the military. The ending of the draft in 1973 and the transition to an all-volunteer military had a major impact on expanding the number of women serving on active duty in the U.S. military.

With regard to ground combat, women had been restricted initially to combat service support and combat support specialties. However, in practice it was difficult to exclude women from combat once they have been broadly integrated into the military. The wars in Iraq and

Afghanistan were a pivotal watershed regarding the integration of women into ground combat roles. The wars in Afghanistan and Iraq presented a less predictable, nonlinear battlefield with asymmetric threats that could potentially expose female soldiers to combat. Because of this, personnel assignment policies became less effective at excluding women from combat situations, and in practice women were participating in foot patrols, as well as convoy escort missions that came under fire.

Attitudes toward expanding the role of women in the armed forces were strongly negative as the U.S. military transitioned to the all-volunteer force. Since the 1970s, however, military personnel have become more accepting of women serving in all occupations, even combat arms specialties. A 1974 survey of male Army personnel found that 70-80 percent felt that a job as a rifle-carrying infantry foot soldier was not appropriate for women (Savell and Collins, 1975). In contrast, a 1997 survey of Army personnel found that 66 percent of male respondents in combat arms specialties felt that women ought to be allowed to serve in their specialties (Harrell and Miller, 1997). Although the magnitude of the differences in male and female perceptions of women's performance has shrunk over time, gendered differences persist. Attitudes of women soldiers are significantly more accepting of women serving in the military than are men's attitudes.

Women are not the only excluded group that has been integrated into the U.S. military. A similar pattern existed for integrating African-Americans and openly gay and lesbian service members. For both the integration of African-Americans and openly gay and lesbian personnel into the U.S. military, currently serving U.S. military personnel tended to be strongly opposed. However, their attitudes became more accepting of integration after a decision to allow individuals from these groups to join had been made and there was operational experience serving with members of the previously excluded groups. It is important to note that these two cases present only limited parallels with potential integration of women in all military specialties after the rescission of DGCDAR as questions about physical standards were not part of the political debate during these two periods of integration. However, the patterns of acceptance and opposition are useful to keep in mind as we consider the data on integration of women in all military occupations and specialties.

Our review of previous integration experiences found that opposition to integrating excluded group personnel declined when it became evident that their inclusion did not reduce unit readiness or cohesion. A key component to maintaining unit readiness is the identification, validation and application of standards for military occupations. As a result, how standards are constructed and applied has played a central role in political debates surrounding integration of excluded groups in the U.S. military. Proponents advocating strategies to increase the participation of the previously excluded group have at times called into question standards' restrictiveness, while those concerned about the adverse impact of the excluded group's integration have emphasized the importance of maintaining stringent standards. As such, questions regarding how to construct standards can become highly politicized, and reflect larger

political debates surrounding personnel policies in the U.S. armed forces. In other words, issues of cohesion and standards construction have been used by advocates to argue in favor of or to prevent policy change. We note that these issues are important in their own right but their use by policy advocates is never far since, as we noted at the outset, military personnel policy is politically determined.

The rescission of DGCDAR has removed gender-restrictive barriers in the military and it has mandated the use of valid gender-neutral standards. Although standards have been in place for SOF specialties for decades, in the aftermath of the rescission of DGCDAR the Services have taken steps to ensure that the standards are current and gender-neutral. The rescission has sparked a discussion as to the meaning of the term gender-neutral standards, the applicability of concepts from the civilian world to highly specialized military environments, and the extent to which existing standards need modification. These concerns are fundamental to SOF identity, since passing through the highly physically demanding accession and selection process constitutes a rite of passage for SOF personnel and contributes to the sense of common identity. In the course of our research, and especially as part of the task on assisting the SOF service components in their standards validation processes, the most common question that arose concerned the likelihood of women to meet gender-neutral standards in the physically demanding SOF specialties and how well will women respond to the stressors they are likely to be exposed to during SOF operations.

Regarding women's abilities to meet SOF standards, we examined the research exploring differences between males and females on physical ability and motor skill tests. On these dimensions, on the average, males generally outperform females. These differences begin to expand following puberty and may be partially influenced by environmental factors. *That said, although there are often large differences between men and women, primary emphasis must be placed on an individual's capabilities to perform critical tasks and individual risks for developing an injury*. Just as very few men succeed in qualifying for SOF and the ones that do are in the tail of the distribution, the same is likely to apply to women, if they are allowed to enter SOF specialties. Average differences between overall populations are not good indicators for understanding readiness for SOF. For purposes of understanding the relevance of physiological differences in the ability of women to qualify for SOF specialties, in almost all cases, additional screening (e.g., physical ability test) will be a better indicator of performance and risk of injury compared simply to knowing whether one is a male or female.

We also examined sex and gender differences in stress response to understand the physiological reasons that may affect women's suitability for the extremely stressful environments in which SOF sometimes operate. Men and women respond to stress differently, although much depends on the specific stressor and context. Just as with physical ability, individual differences and prior experiences have a greater impact on stress response than sex or gender. Additional screening will be a better indicator of stress response rather than broad

distinctions along male-female lines. Stress response can be altered as individuals learn from experience and from specific training designed to cope with specific stressors.

In addition to the questions of whether women will meet gender-neutral standards in SOF specialties and how well women will respond to stressors during SOF operations, concerns have arisen as to whether integrating women into SOF units will disrupt unit cohesion. To address these concerns, we examined the relevance of cohesion for SOF units, assessed the implications of cohesion for SOF unit effectiveness, and considered whether and how integrating women into SOF units may affect cohesion in SOF units. We found that cohesion is particularly relevant for SOF units and can increase SOF unit effectiveness. Integrating women into SOF units may reduce unit cohesion if female operators are not perceived as competent and are not accepted as full members of their teams.

There are two main dimensions to cohesion: task cohesion and social cohesion. Task cohesion, which captures the extent to which unit members share a common goal and coordinate their efforts to achieve it, enables units to work together effectively as a group to accomplish their missions. As we discuss in Chapter 4, task cohesion has long been recognized as a key contributor to unit effectiveness. Social cohesion, which we define broadly as the extent to which unit members like one another, trust one another, and provide social support for one another, may also increase SOF units' effectiveness indirectly. Evidence that social cohesion affects unit performance directly is mixed but analysts have found that social cohesion can strengthen individual unit members' resilience, enabling groups to perform tasks effectively in stressful environments, and reducing the probability that unit members will experience mental distress in the aftermath of their operations.

Integrating women into SOF units has the potential to reduce unit cohesion if female special operators are not perceived as competent and are not accepted as full members of their teams. Women's acceptance on teams will reflect their ability to perform team tasks, other team members' willingness to accept women on the team, and leaders' efforts to promote integration. Perceptions of performance and competence play at least as important a role in generating cohesion in SOF units. Male unit members' perceptions of women's performance and competence may be influenced by many factors. Women's performance on unit tasks will shape unit members' perceptions of competence. Perceptions of women's competence will also reflect the quality of members' prior experience working with women, and potential biases in assessing women's capabilities. Male unit members' beliefs about the standards to which women are held will also influence their perceptions of women's competence. For example, studies have found that some U.S. military personnel believe that women are held to lower standards. This belief informs their expectations of women's competence.

# 2. The Integration of Women and Other Excluded Groups into the U.S. Military: The Historical Experience

## Introduction

In order to provide context for how DoD arrived at the decision to rescind DGCDAR, this chapter provides an overview of the historical experience of integrating women and other excluded groups into the U.S. military. The first section summarizes the history of women in the U.S. military, with a particular focus on the Army and the Marines. The expansion of women's roles in the U.S. military was driven primarily by the need for personnel, either to fight a total war or fill personnel shortfalls that resulted from the ending of the draft, and the reality that in practice it is difficult to exclude women from combat once they have been broadly integrated into the military. We also take an in-depth look and examined the trends in participation of women in three combat support Army military occupational specialties (MOS). We found that the trends in these specialties follow the general pattern of the integration of women in the military. The second section examines the shift in attitudes within the military about the participation of women, African-Americans, and openly gay and lesbian personnel after they had been formally integrated into the U.S. military. Our examination of the military's historical experience of integrating excluded groups suggests that military personnel initially hostile to the integration of these groups eventually have tolerated, if not embraced, the presence of these groups.

While the opportunities for women in the military have grown over time, there is no pre-ordained "end point" for the extent to which women are integrated in the military. In fact, that "end point" is politically chosen, since military personnel policy is politically determined, the question of "who serves" is a manifestly political decision, and the debates that we illustrate below show that the integration of women in the military (and other excluded groups) have been a highly contentious component of political discourse in the United States dating back at least to the 1940s. Moreover, as we noted in a previous study, personnel policy is highly politicized and it is the one major area (in the five major realms of civil-military relations that are related to issues of military effectiveness) where substantive civil-military differences exist. [3]

## Women in the U.S. Military

The U.S. military has a long history of employing women within its ranks, which we review in this section. The major shift in the integration of women into the U.S. armed forces came with

[3] The five realms are: threat assessment; defense resources; force design and creation; force maintenance; force employment. Personnel policy is the main component of "force maintenance" (Szayna et al. 2007).

the establishment of the All Volunteer Force (AVF) in 1973. Prior to that time, women's roles were highly curtailed and there were caps on the number of women in the armed forces. The influx of women in the military after 1973 changed the situation. One result of the increased integration of women into the military was that it became increasingly difficult to develop personnel policies that could successfully enforce legislated restrictions on women serving in combat. As a result, the Department of Defense and the U.S. Government revamped their combat exclusion polices several times during the 1970s, '80s, and '90s in an effort to keep pace with operational realities and the greater role of women in the military.[4] Ultimately, these restrictive polices proved increasingly impractical to execute. This became clear in 1991, with the deployments of tens of thousands of U.S. military women to the Persian Gulf as part of Operation Desert Shield and Operations Desert Storm. That experience was magnified during the wars in Iraq and Afghanistan.

A major motivation for the rescission of the DGCDAR, as noted in the Memorandum announcing the change in policy, was the fact that women already had participated widely in ground combat during the counterinsurgency battles in Iraq and Afghanistan. Women made up approximately 15 percent of the U.S. armed forces in the decade of 2000s. Given the fact that there are no frontlines in counterinsurgency campaigns, and that armed forces personnel in combat support and combat service support positions (where women soldiers or Marines were concentrated) often came into contact with adversary forces, women service members took part in many firefights and close combat that characterized the campaigns in Iraq and Afghanistan.

Below we trace out the main outlines of the integration of women in the U.S. military. We do so to provide the setting for the rescission of the DGCDAR and the context for the current debates. In addition, many of the arguments, pro and con, regarding the further integration of women in the U.S. military that have emerged in the aftermath of the rescission of DGCDAR reflect earlier debates regarding the increased participation of women in the military. We also came across many of these arguments in the course of our research (survey and focus groups).

### *Main Steps in the Integration of Women in the Military*

While women had volunteered in large numbers to serve on active military duty, during the first half of the twentieth century utilization of women in the U.S. military (outside the Medical Corps) was largely a wartime expedient necessary to meet the personnel demands of total war. Until the 1970s, the role of women military personnel was primarily as auxiliaries to provide nursing care or to free up men from administrative duties for combat duty during times of national emergency requiring the full mobilization of U.S. society.[5]

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[4] See National Women's Law Center, 2014.

[5] The law that established the Women's Army Corps (WAC) as part of the Army during World War II gave it a life span of the duration of the war plus six months (United States Army Women's Museum, 2000; Harrell and Miller, 1997, p. 1).

Women have served in every war fought by the U.S. military dating back to the American Revolution. During earlier wars, some women concealed their gender by pretending to be men and boys, others served as replacements for their husbands, while some women worked as spies against enemies, served as nurses, or worked in various support roles by cooking and cleaning (Sandhoff and Segal 2013). The military continued to formalize roles for women during the start of the 20th century by creating all-women units for select roles. In 1901, for example, Congress created the Army Nurse corps for women.

During World War I (1917-1918) some 35,500 women served in the military, 23,300 of whom were nurses in separate Army and Navy Nurse Corps.[6] In World War II women were recruited into the U.S. armed forces for similar reasons and over 350,000 women volunteered for military service, primarily in nursing and administrative jobs (Harrell and Miller, 1997, p. 1). By the time the war ended in September 1945 some 266,000 women (2.2% of the U.S. military) were serving on active duty. With the end of World War II, the number of women on active duty dwindled rapidly.

Then, in 1948, at the beginning of the Cold War, some women were formally integrated into the U.S. military in order to provide a cadre of well-trained personnel who could train women volunteers to serve in support positions upon mobilization for another global war (Morden, 1990, pp. 399-400). With support of U.S. military leaders and despite stiff Congressional resistance, in 1948 the Woman's Armed Service Integration Act passed (Morden, 1990, pp. 44-55). The law granted women status in the active and reserve forces of the U.S. military, limited the number of women in the Army to 2% of the enlisted ranks and capped the number of women officers to 10% of enlisted women. In addition, women officers could not hold command positions, attain the rank of general, or have a permanent rank above Lieutenant Colonel (O5). The legislation also specifically prohibited women from being assigned to aircraft or vessels engaged in combat missions and, based upon this, the Army adopted policies excluding women from direct combat.[7] With the passage of this law, albeit in a restricted fashion, women formally became part of the U.S. military.

In the twenty years following the passage of the Women's Armed Service Integration Act the number of active duty women in the U.S. military hovered at just above 1% of the active force.[8] During the Korean War, the U.S. military sought to mobilize between half a million and one million women. Despite active recruiting efforts the military fell far short of its goals and, at its

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[6] The Army Nurse Corps was established in 1901 and the Navy Nurse Corps in 1908. 21,480 Army nurses and 1,476 Navy nurses served in military hospitals in the United States and overseas. Over 400 of these nurses died while in service, primarily from influenza (the Spanish flu) contracted while on duty. In addition, the Navy recruited 11,880 women to serve in stateside shore billets in order to free up male soldiers for sea duty. The Marine Corps enlisted 305 women for the same reason (Women in Military Service for America Memorial Foundation, n.d.).

[7] The 2% cap was lifted in 1967 during the Vietnam War (Harrell and Miller, 1997, pp. 1-2).

[8] There was a brief spike to 1.5% during the Korean War. During the period 1948 to 1969 the greatest number of women on active duty was 45,934 (1952) and the least was 14,458 (1948). By 1969 39,506 women (1.1%) served in the active duty military. DMDC datasets.

peak, the number of women in the active armed forces during the Korean War was 46,000 in 1952 (about 1.5% of the U.S. active military), declining to about 35,000 by war's end in June 1955 (Holm, 1992, p. 157). In response to the military's inability to recruit the desired number of women, in 1951 Secretary of Defense George C. Marshall created the Defense Advisory Committee on Women in the Services (DACOWITS) as a civilian advisory board to advise on the recruitment and retention of military women for the Korean War (Holm, 1992, pp. 150-151).

During the Vietnam War, DoD had a goal of adding 6,500 women to the military in an attempt to reverse a downward trend after the Korean War (Holm, 1992, p. 187). However, women continued to be utilized in limited roles. In 1967, the two percent ceiling and promotion ceilings established by the Women's Armed Services Integration Act were lifted, partially in response to recommendations made by DACOWITS. Despite the lifting of these ceilings, large numbers of women did not begin to join the military until the 1970s. In 1972, five years after the two percent ceiling was lifted, the non-nurse female proportion of the military remained at 1.7 percent (D'Amico and Weinstein, 1999, p. 42).

The ending of the draft in 1973 and the transition to an all-volunteer military had a major impact on the number of women serving on active duty in the U.S. military.[9] With the introduction of the All Volunteer Force (AVF), there was a widely shared perception within DoD that women were needed to fill the ranks and, subsequently, the services were directed to develop contingency plans to increase the use of women in the military (Devilbiss, 1990, p. 13).[10] The end of the draft led to the opening up of most military occupations to women, the more extensive integration of women personnel into the services, and a rapid increase of the number of women serving on active duty. As illustrated in figures 2.1 and 2.2, starting in 1970, and increasingly so after 1973, women's participation in the military and the Army showed steady growth until it peaked at the start of the 21st century. The ending of the draft and the opening up of many Army positions to women also increased the number of women serving overseas during peacetime. In 1972 there were 1,188 WACs serving overseas, with 473 of them in Europe. By 1978 this figure rose to 18,490, with 13,671 of them in Europe (Morden, 1990, p. 283).

In 1978, President Jimmy Carter signed Public Law 95-485, which (1) disbanded the all-female WAC and integrated women into the Army and (2) allowed women in the Navy to be assigned to duty aboard noncombatant ships (Pub. L. 95-485, 1978). Subsequently, the early 1980s marked a period of reassessment of the role of women in the U.S. military. At this time, claims of reverse discrimination in the military also began to emerge. The issue came to a head in 1980 when the director of the Selective Service System was sued in an attempt to rescind women's exemption for selective service. The case was appealed to the Supreme Court, and in

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[9] Growth in the % of women in the military during the period 1970 to 1973 can be largely attributed to the shrinking of the overall size of the U.S. military while the number of women serving grew only slightly.

[10] For a comprehensive accounting of the evolution of the all-volunteer force, see Rostker, 2006.

1981 the Court ruled that women are exempt from selective service because "women as a group ... are not eligible for combat. The restrictions on the participation of women in combat in the Navy and Air Force are statutory" (*Rostker v Goldberg*, 453 U.S. 57 1981).

When President Ronald Reagan came into office in 1981, the Army announced its objection to the Office of the Secretary of Defense's (OSD's) goal to increase the number of enlisted women in the active Army and instead voiced its desire to (Clark, 1981)

> level out the number of enlisted women in the Active Army at 65,000. . . . These modifications were prompted by indications from field commanders that combat readiness is being affected by such factors as attrition, pregnancy, sole parenthood, and strength and stamina, which have come to light during the recent rapid increase in the number of women in the Army.

Accordingly, the Army decided to take a "pause" in the recruitment of women in lieu of an examination of their impact on military readiness (Holm, 1992, pp. 380–388).

In response, OSD announced a rapid study of the impact of women on readiness. When the study concluded, Secretary of Defense Caspar Weinberger (1982) sent a memo to the services indicating that

> Qualified women are essential to obtaining the numbers of quality people required to maintain the readiness of our forces. This Administration desires to increase the role of women in the military, and I expect the Service Secretaries actively to support that policy. . . . This Department must aggressively break down those remaining barriers that prevent us from making the fullest use of the capabilities of women in providing for our national defense.

The focus of the Reagan administration then became eliminating institutional barriers for women in the military (Rostker, 2006, p. 567). Lawrence Korb, an assistant secretary of defense, acknowledged that the question of combat exclusions was central to the issue of eliminating barriers. If combat exclusions were legitimate, "the barriers that result are neither artificial nor discriminatory" (Korb 1982).

In 1982, the Army reassessed the coding system it used to assess women's risk on the battlefield, and, as a result, some jobs were restored to women, while others were eliminated altogether. In response, Secretary Weinberger (1983) stated:

> It is the policy of this Department that women will be provided full and equal opportunity with men to pursue appropriate careers in the military services for which they can qualify. This means that military women can and should be utilized in all roles except those explicitly prohibited by combat exclusion statutes and related policy. This does *not* mean that the combat exclusion policy can be used to justify closing career opportunities to women. The combat exclusion rules should be interpreted to allow as many as possible career opportunities for women to be kept open (emphasis in original).

The new rules caused some confusion in operational units. For example, the Army found that it had many women serving in positions coded as being at the highest risk of combat in which they were ineligible to serve. In 1987 some 250 women were assigned to combat units in West

Germany, but their commanders were reluctant to transfer them to other jobs, in part because of a lack of men to fill the vacancies that would result. Ultimately, it took a direct order from the Commander, USAREUR to get many of the women transferred (Devilbiss, 1990).

In 1988, a task force proposed a new "risk rule which excluded women from noncombat units or missions if the risks of exposure to direct combat, hostile fire, or capture were equal to or greater than the risk in the combat units they supported" (United States General Accounting Office, October 1988, p. 2). The effect was that, in less than two years, Assistant Secretary Christopher Jehn reported to Congress that, as a result of the new "at risk" rule, "31,000 new positions were opened to women in both the active and reserve components [and] over 63 percent of all positions in the Services are now open to women" (Jehn, 1990).

Of the more than half a million U.S. troops deployed to the Persian Gulf during Operations Desert Shield and Desert Storm, approximately seven percent (about 41,000) were women (United States General Accounting Office, 1993, p. 10). This precipitated major changes in policy with regard to the role of women in the military, including a reexamination of exclusionary laws. In 1991, Congress repealed 10 U.S.C. 8549, the combat aviation exclusion, and, in a compromise move, established a presidential commission to study the issue of combat exclusions further (Rostker, 2006, p. 572; Holm, 1992, pp. 473–510). The Presidential Commission on the Assignment of Women in the Armed Forces[11] issued a report in 1992 and proposed several recommendations, including the following (Presidential Commission on the Assignment of Women in the Armed Forces, 1992a):

- the adoption by the military services of "gender-neutral assignment policies" to ensure that no one could be denied access to a post open to both men and women on the basis of gender
- acknowledging the physiological differences between men and women and calling on services to "retain gender-specific physical fitness tests and standards to promote the highest level of general fitness and wellness"
- the retention of existing policies that did not allow for the assignment of service women to special operations forces, apart from service in a medical, linguistic, or civil affairs capacity
- a new law banning women from air combat positions (18 months after Congress repealed an identical law), as well as urging legislation to exclude women from ground combat assignments in the infantry, artillery, and armor and from certain assignments in air defense and combat engineers
- opening nonflying jobs to women on Navy combat ships while disqualifying women from service on submarines and landing aircraft.

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[11] The commission consisted of nine men and seven women. Some commission members would later become central figures in the debate on gay rights in the military, including Charles Moskos, a military sociologist and the architect of DADT; retired Army Colonel Darryl Henderson, former commander of the Army Research Institute and author of *Cohesion: The Human Element in Combat*, who argued that cohesion could not be developed in mixed gender units; and Elaine Donnelly, president of the Center for Military Readiness (CMR) and a frequent critic of defense personnel policies.

Five commission members dissented with the conclusions of the report and instead issued an "Alternative View Section" (Presidential Commission on the Assignment of Women in the Armed Forces, "Alternate Views," in *Report to the President*, 1992b). The crux of the alternative view was that "the military, in building fighting units, must be able to choose those most able to fight and win in battle" (Presidential Commission on the Assignment of Women in the Armed Forces, 1992b, p. 44). The alternative view argued that allowing women to serve in combat units would endanger not only women, but also the men serving with them (Presidential Commission on the Assignment of Women in the Armed Forces, 1992b, p. 44). In addition, the alternative view noted that the issue of women in combat was not comparable to racial integration in 1948 because "dual standards are not needed to compensate for physical differences between racial groups, but they are needed where men and women are concerned" (Presidential Commission on the Assignment of Women in the Armed Forces, 1992b, p. 45).

The incoming Secretary of Defense Les Aspin arbitrated the competing views expressed by the commission (Rostker, 2006, p. 574). In April 1993, President Clinton ordered the services to open combat aviation to women and to investigate other opportunities for women to serve. In response, Aspin ordered the services to "permit women to compete for assignments in aircraft including aircraft engaged in combat missions" (Aspin, 1993). Later that year, Congress repealed 10 U.S.C. 6015 (the combat ship exclusion), opening most Navy combatant ships, except for submarines, to women. In 1994, DoD rescinded its "risk rule" because "the rule no longer applied since, based on experiences during [Operation] DESERT STORM, everyone in the theater of operation was at risk" (United States General Accounting Office, October 1988, p. 3). DoD also announced its new ground combat exclusion (Aspin, 1994):

> Women shall be excluded from assignment to units below the brigade level whose primary mission is to engage in direct combat on the ground . . . with individual or crew served weapons, while being exposed to hostile fire and to a high probability of direct physical contact with hostile force's personnel.[12]

As a result of these and other policy changes, the number of positions open to women increased substantially. For example, in both the Navy and the Marine Corps, there was about a 30 percent increase in positions that were open to women (Harrell and Miller, 1997, p. xvii). Before these policy changes in 1993, 67 percent of positions were available to women in the military; by 1997, 80.2 percent of positions in the military were available to them (Harrell and Miller, 1997, p. 12).

This assignment policy was distinct from the policy regarding combat arms positions being closed to women: the assignment policy and opening of positions meant that fewer assignments were closed to women, not that fewer occupations were closed to women. For example, a female

[12] According to DoD officials from the Office of the Under Secretary of Defense for Personnel and Readiness, "the prohibition on direct ground combat was a long-standing Army policy, and for that reason, no consideration was given to repealing it when DoD adopted the current assignment policy in 1994" United States General Accounting Office, 1988.

radio operator could now serve in various radio operator positions from which she previously would have been excluded, but still could not be assigned to those positions if they were in units with direct ground combat missions. This was distinct from service-level policies barring women from certain military occupations, like infantry.

The wars in Iraq and Afghanistan proved to be a pivotal watershed regarding the integration of women into the military. The wars in Afghanistan and Iraq presented a less predictable, nonlinear battlefield with asymmetric threats that could potentially expose female soldiers to combat. Because of this, the assignment policy became less effective at excluding women from combat situations, and in practice women were participating in foot patrols, as well as convoy escort missions that came under fire (Burrelli, 2013). Both the Army and Marine Corps created female-only formations that were attached to combat units. The Army's Cultural Support Teams (CST) consisted of female soldiers who supported Army SOF; similarly, the Marine Corps set up Female Engagement Teams (FET) that consisted of female Marines attached to Marine combat units. Both of these formations were set up in order to allow U.S. forces access to women and children among the local populations which, because of cultural customs, was difficult for male soldiers and Marines to accomplish.

The wars in Iraq and Afghanistan also led to debates in Congress over the potential exposure of women to combat. In May 2005, House Armed Services Committee Chairman Duncan Hunter introduced a bill that would have (1) prohibited women from serving in any company-size unit that provided support to combat battalions or their subordinate companies and (2) blocked the assignment of women to thousands of positions previously open to them, and in which they were already serving. The Army opposed this bill; as General Richard A. Cody, the Army's Vice Chief of Staff, noted, "[t]he proposed amendment will cause confusion in the ranks, and will send the wrong signal to the brave young men and women fighting the Global War on Terrorism" (Tyson, 2005). The bill was ultimately defeated.

In February 2010, Secretary of Defense Robert Gates notified Congress of the Department of the Navy's desire to reverse the policy of prohibiting women from submarine service. When General George Casey, the Army's Chief of Staff, was asked about his view on allowing women to serve in combat roles, he told the Senate Armed Services Committee that it was time to review the policy: "I believe it's time we take a look at what women are actually doing in Iraq and Afghanistan" (McLagan and Sommers, 2010).

In 2011, and in response to findings from the Military Leadership Diversity Commission that the services' combat exclusion policies were a barrier to greater women's representation in the senior noncommissioned officer and flag and general officer ranks, the 2011 National Defense Authorization Act directed the Secretary of Defense and the service secretaries to conduct a review of all gender-restricting policies (Miller et al, 2012; Office of the Undersecretary of Defense Personnel and Readiness, 2012).

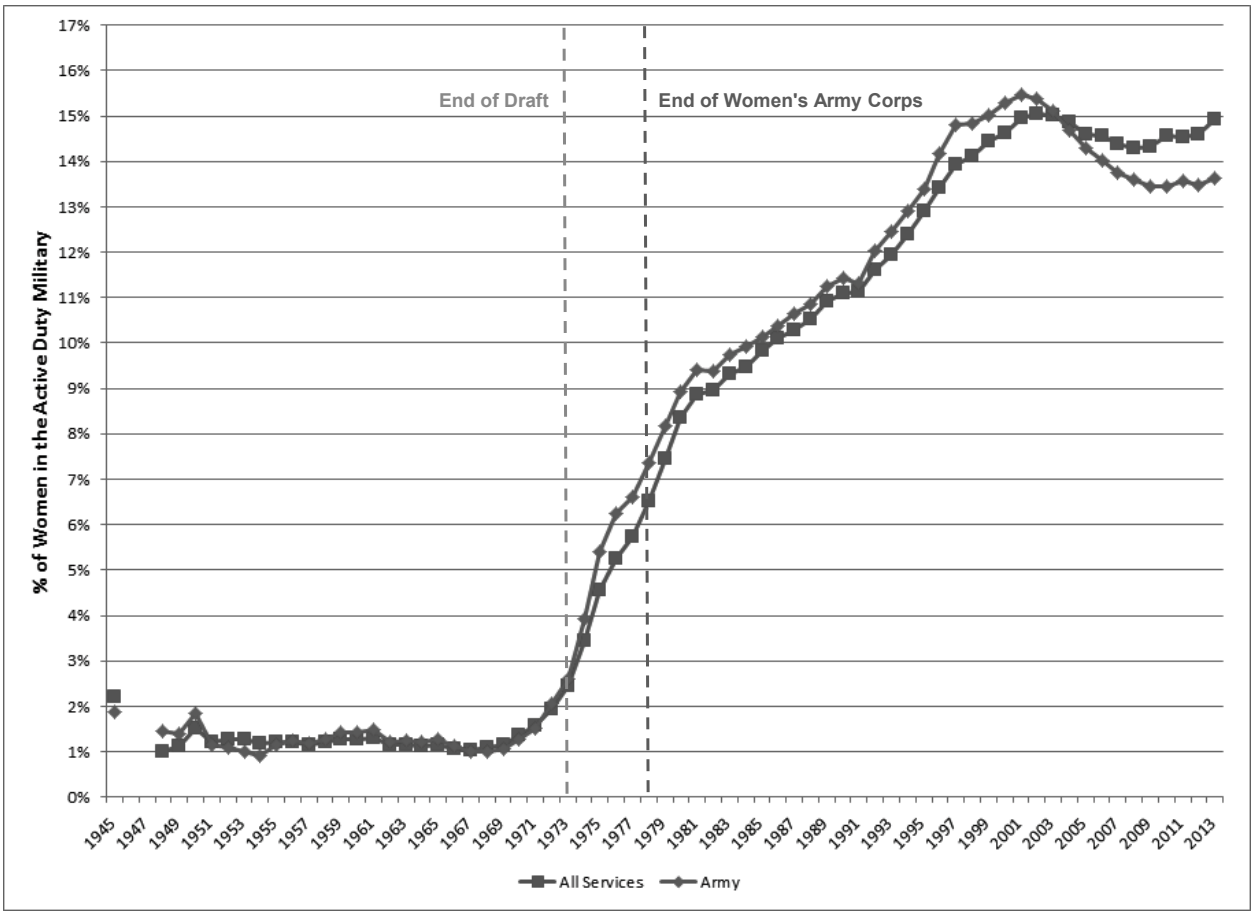
In 2012, the Army announced that it would open as many as 14,000 combat-related jobs in six military occupational specialties at the battalion level. Brigadier General Barry Price, the

director of human resources policy at the time at the Army G-1 (Personnel) said that "The last 11 years of warfare have really revealed to us there are no front lines. There are no rear echelons. Everybody was vulnerable to the influence of the Army" (Tan, 2012a). In May 2012, Rep. Loretta Sanchez and Sen. Kirsten Gillibrand introduced legislation in both houses of Congress to encourage the repeal of the ground combat exclusion (McGregor, 2012). The legislation did not pass. In May 2012, two Army reservists also filed a lawsuit that sought to overturn the remaining ground combat exclusions claiming that they limit "their current and future earnings, their potential for promotion and advancement, and their future retirement" (McGregor, 2012). All of this led up to the rescission of DGCDAR in January 2013. Below we provide some numbers tracing the share of women in the U.S. armed forces, focusing especially on the Army because of the ground combat rule exclusion.

### *Female Participation in Active U.S. Military*

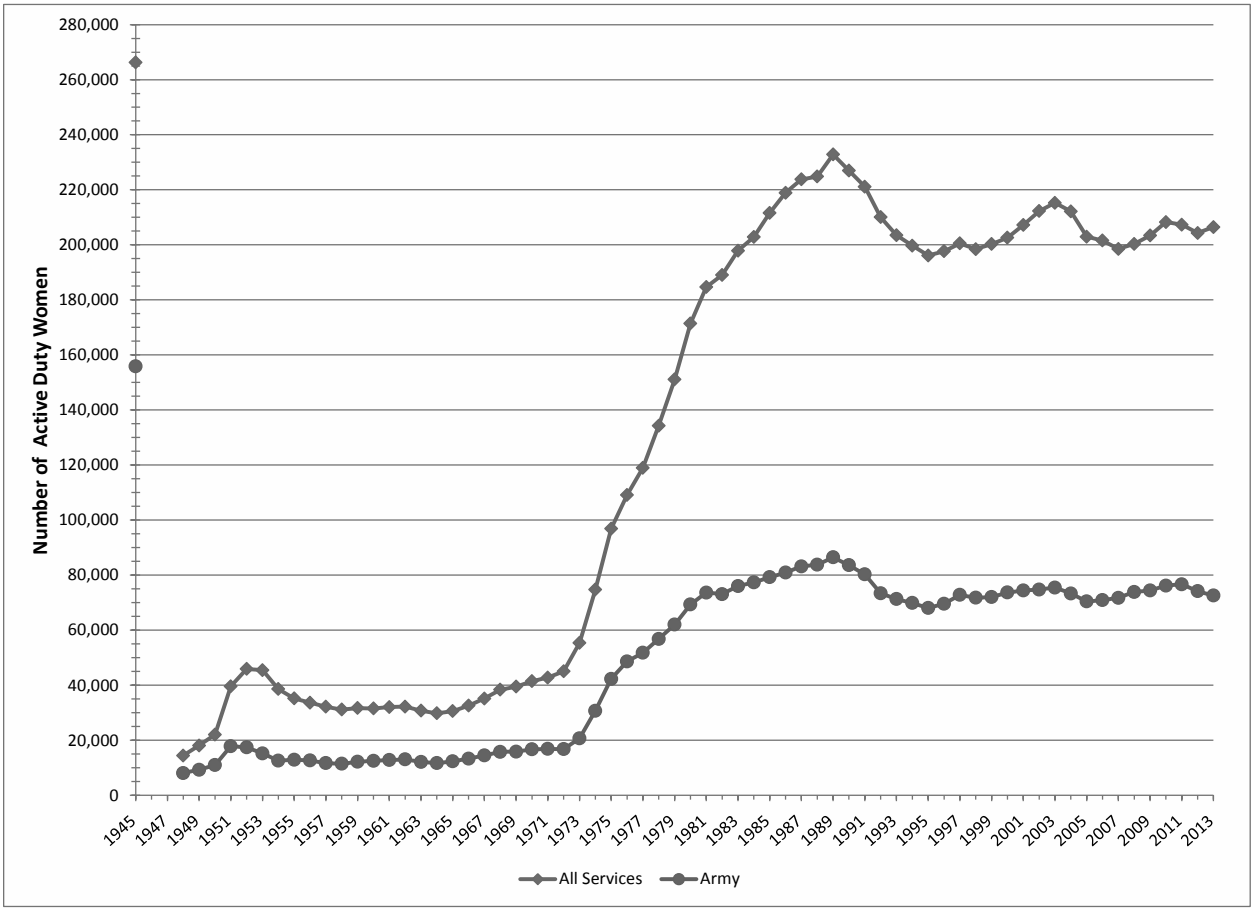
We illustrate the trajectory of female participation since 1945 in the active U.S. military and Army in Figures 2.1 and 2.2. The effects of the ending of the draft on female participation in the military emerge clearly in the two Figures. The number of women on active duty in the military services increased rapidly between 1972 and 1981 from about 45,000 to over 185,000. Subsequently, the rate of growth moderated until the post-WWII peak of 232,823 women in the military, reached in 1989. Post-Cold War military reductions led to a decline in active duty women to about 196,000 in 1995. With the exception of a brief rise to 215,000 in 2003, the number of active duty women in the military has stabilized at or slightly above the 200,000 level. However, the percentage of women on active duty has continued to increase, reaching a peak of 15% in 2001-2003.

**Figure 2.1. Women in the Military (% of Active Personnel): 1945-2013**




SOURCE: DoD, Selected Manpower Statistics: Fiscal Year 2005, 2005, DMDC datasets.

**Figure 2.2. Active Duty Women in the Military and the Army, 1945-2013**

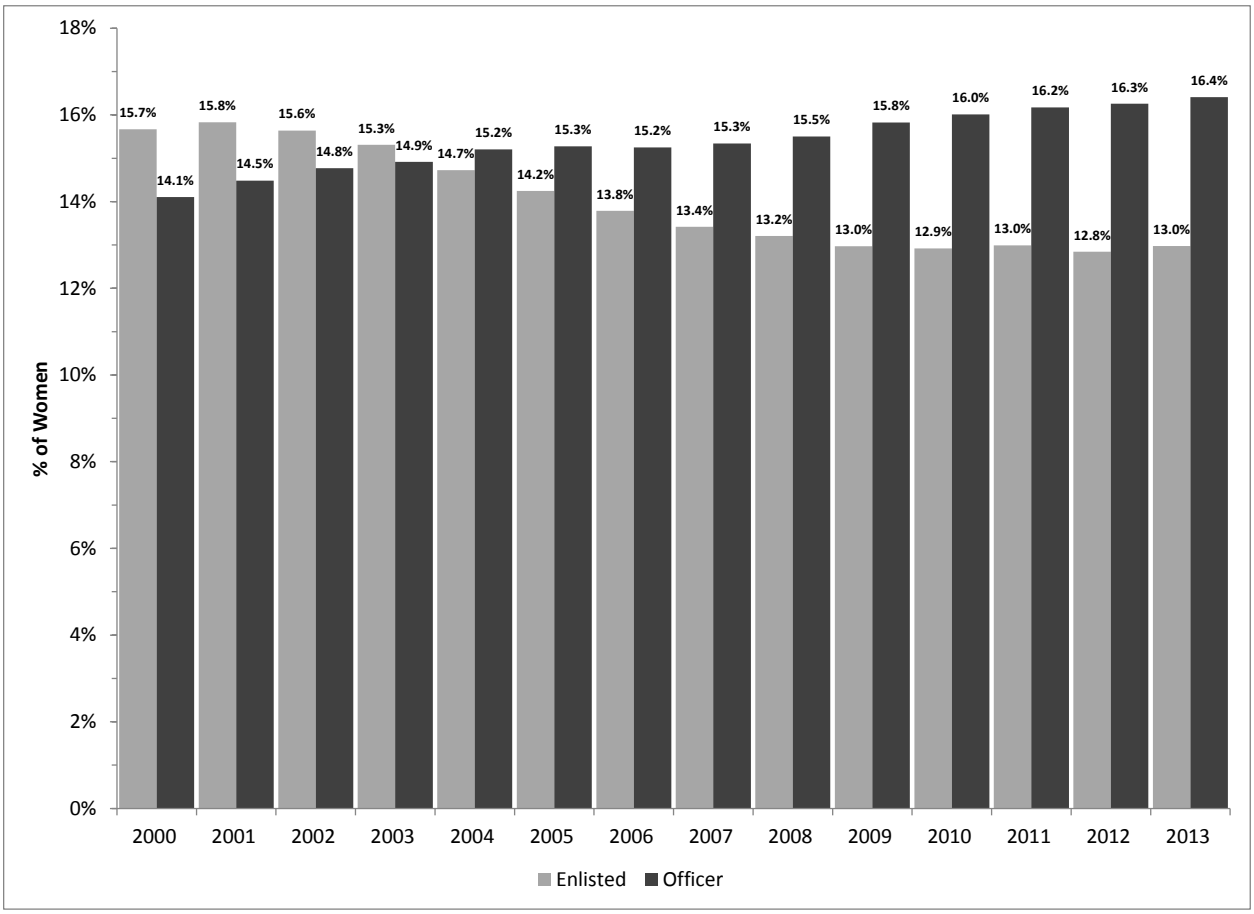



SOURCE: DoD, Selected Manpower Statistics: Fiscal Year 2005, 2005; DMDC datasets.

Compared to the other services, the U.S. Army has deployed many more personnel in the wars in Iraq and Afghanistan and has the largest number of women that are likely to have participated in direct ground combat in those theaters. During these two conflicts, the participation trends of active duty women in the Army have diverged from those of the military services as a whole. Overall female participation in the active U.S. military peaked in 2001-2003 at 15% and remained generally steady within the mid-14% to 15% range for the next decade. Female participation in the U.S. Army peaked at 15.5% in 2001 and then declined to 13.6% in 2008 where it remained for the next five years. In contrast to the period 1970-2003 when women were a larger portion of the U.S. Army than they were of the active military force as a whole, after 2004 female participation rates in the Army have been consistently lower than the rates for all of the U.S. military. Since the start of the 21st century, the percentage of women officers has continued to increase, albeit at a slow rate, while the percentage of enlisted women declined from a peak of 15.8% in 2001 to about 13% in 2009 where it has since remained (see Figure 2.3). This change in female participation rates was not driven by an absolute decline in female soldiers; rather it is the result of an increase in the overall size of the U.S. Army and an increase

in the number of men serving on active duty without a corresponding increase in women's participation.[13]

**Figure 2.3. Women in the Army: 2000-2013 (% of Active Enlisted and Officer Personnel)**




SOURCE: DoD, *Selected Manpower Statistics: Fiscal Year 2005*, 2005, DMDC datasets.
NOTE: Data excludes cadets.

### *Female Participation in Select Army Military Occupations*

The overall trends discussed above provide a general look at the pattern of integration of women into the U.S. military. In this section we examine trends in female soldier participation in three Army occupational specialties: Military Police; Engineers; and Chemical, Biological, Radiological, and Nuclear (CBRN). We chose these three specialties for closer examination because all three are in the combat support functions and each has considerable need for physical strength, includes exposure to physical and psychological danger, and has the potential for direct involvement in ground combat operations.

[13] One potential explanation for this was the wartime need for additional combat –oriented positions that excluded women.

Our purpose was to see whether the overall trends matched the rate of women participation in combat support specialties, as these were opened to them. In each of these specialties, the pattern of participation is similar to the overall trends. Shortly after the opening of the specialty, there was an influx of women, and followed by a stabilization of the number of women in the MOS. Interestingly, the participation of women in all three MOSs is greater than the overall Army participation rate by women.

### Military Police

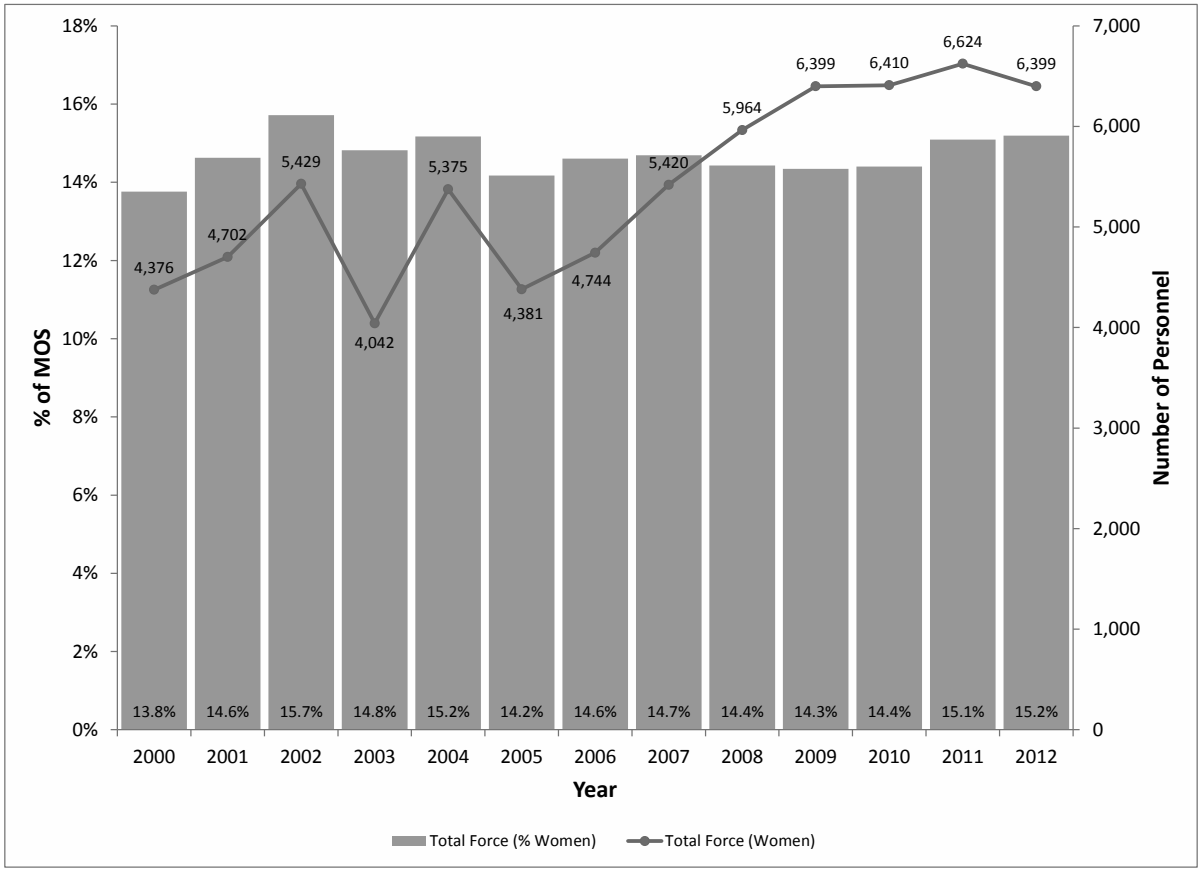
Military Police (AOC 31A and MOS 31B) operate in small teams within the "human domain" and gather police intelligence through continuous engagement with the local populations. Military Police also need to be able to make rapid decisions on the escalation of the use of force in complex situations, must be tactically proficient, and know how to use interpersonal communication skills.[14] Finally, an MP's duties can involve combat. MP teams and squads are armed with both crew-served and individual weapons. During OIF, female MPs engaged in combat operations and served as platoon and squad leaders in firefights with insurgents. According to Army sources, an MP company in Iraq would consist of 10-20% female soldiers (Twitchell, 2008, pp. 69-70). In Iraq, a female MP (Sergeant Leigh Ann Hester) received the Silver Star for bravery in a direct ground combat encounter (Botters, 2008, p. 72). The extensive use of MPs as light infantry has, according to one author, led many women who were otherwise interested in being in the infantry to join the military police (Solaro, 2006, p. 117).

Female soldiers have served as military police since at least July 1951 when the first woman MP graduated from the MP Officers course in July 1951. In 1972 the MP MOS was officially opened to women and the Army began a formal program for female MPs and in July 1977 the first gender–integrated class of Military Police One-Station-Unit-Training began. By June 1978 the U.S. Army had 206 female MP Officers and 684 female MP enlisted personnel, totals which increased to 429 and 1,570, respectively, by September 1991 (United States Army Women's Museum, 2000). In October 1994 the last major barrier to women in the Military Police Corps was eliminated when positions in divisional MP companies were opened to women.

As Figure 2.4 shows, in 2000-2012 female enlisted MOS 31B MP personnel ranged in number from about 4,300 to 6,600 and have comprised consistently around 14-15% of the total MP force during this period. Figure 2.5 illustrates that participation rates were slightly higher for active duty female enlisted personnel and that their representation in the MP Corps was broadly similar to their representation among active enlisted personnel.

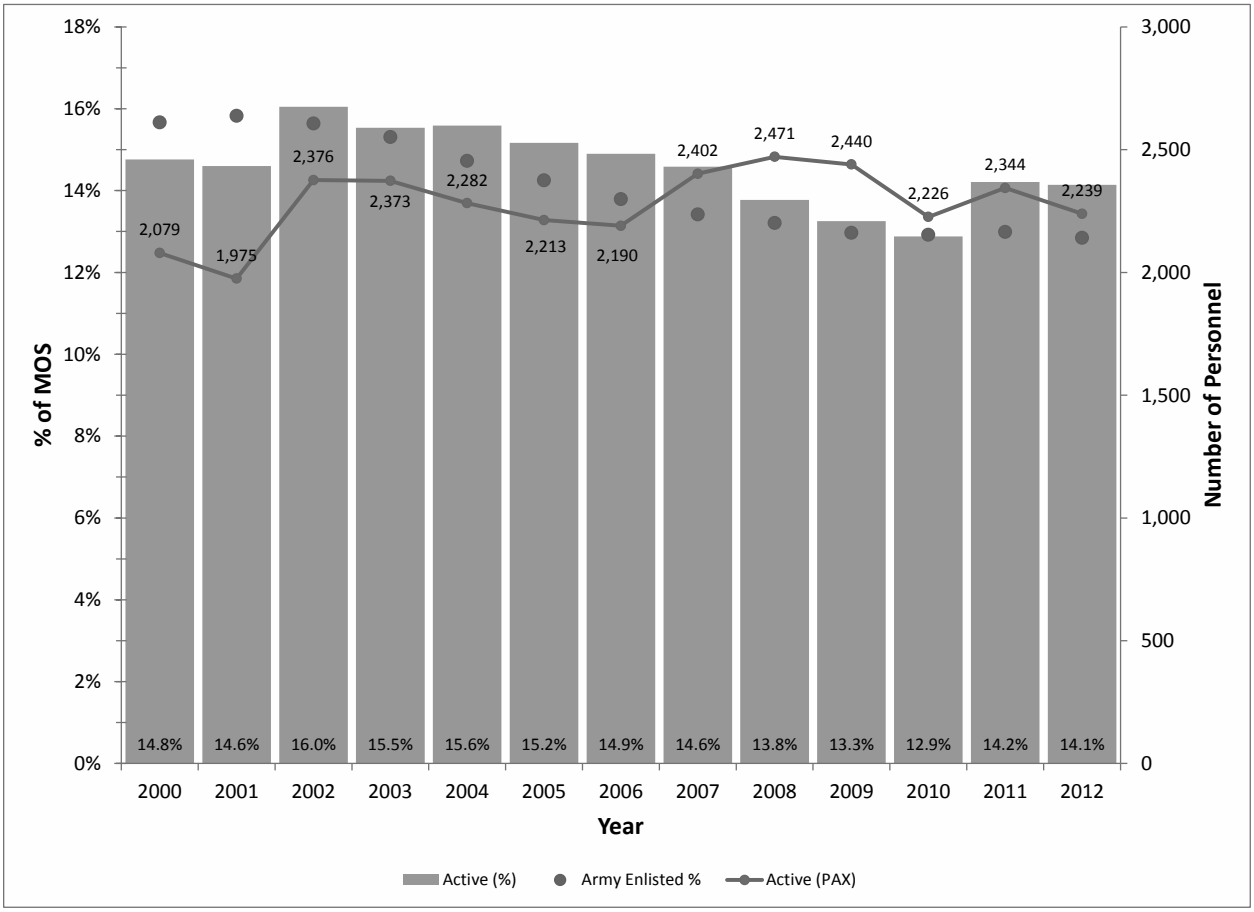
[14] See Field Manual 3-39, 2013.

**Figure 2.4. Women Enlisted Military Police (MOS 31B) Personnel**




SOURCE: RAND analysis of DMDC data.
NOTES: The sharp drop in personnel in 2003 appears to be due to inaccurate USAR numbers effecting both male and female reporting. Reserve component reporting in 2005 and 2006 is also lower than both the previous and following years.

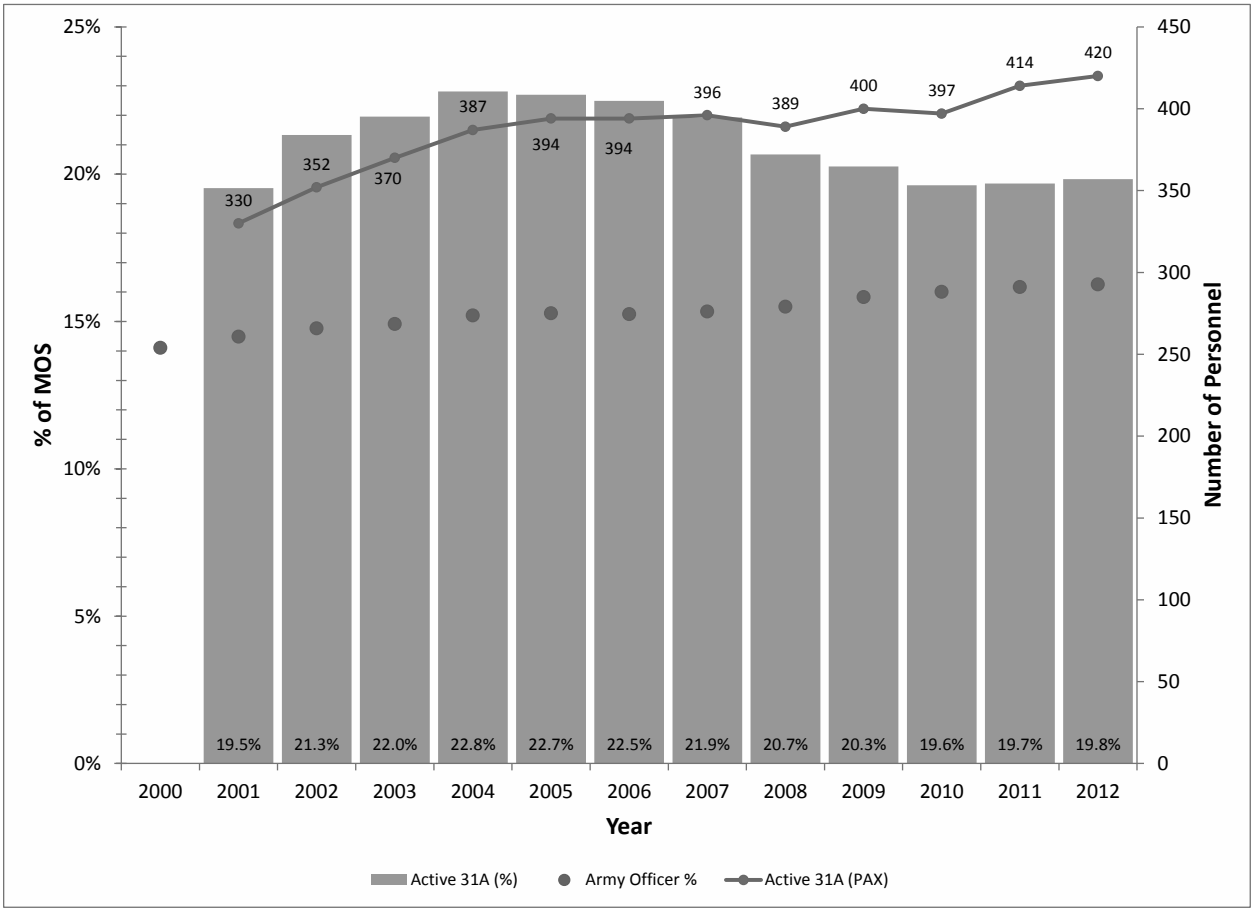
**Figure 2.5. Active Component Women Enlisted Military Police (MOS 31B) Personnel**




SOURCE: RAND analysis of DMDC data.

Figure 2.6 illustrates that, since at least 2001, female MP Officers have been roughly 20% of the MP Officers. Women officers have participated in the MP Corps at a higher rate than enlisted women and at a higher rate than their representation in the active officer corps.

**Figure 2.6. Active Component Women Officer Military Police (MOS 31A) Personnel**

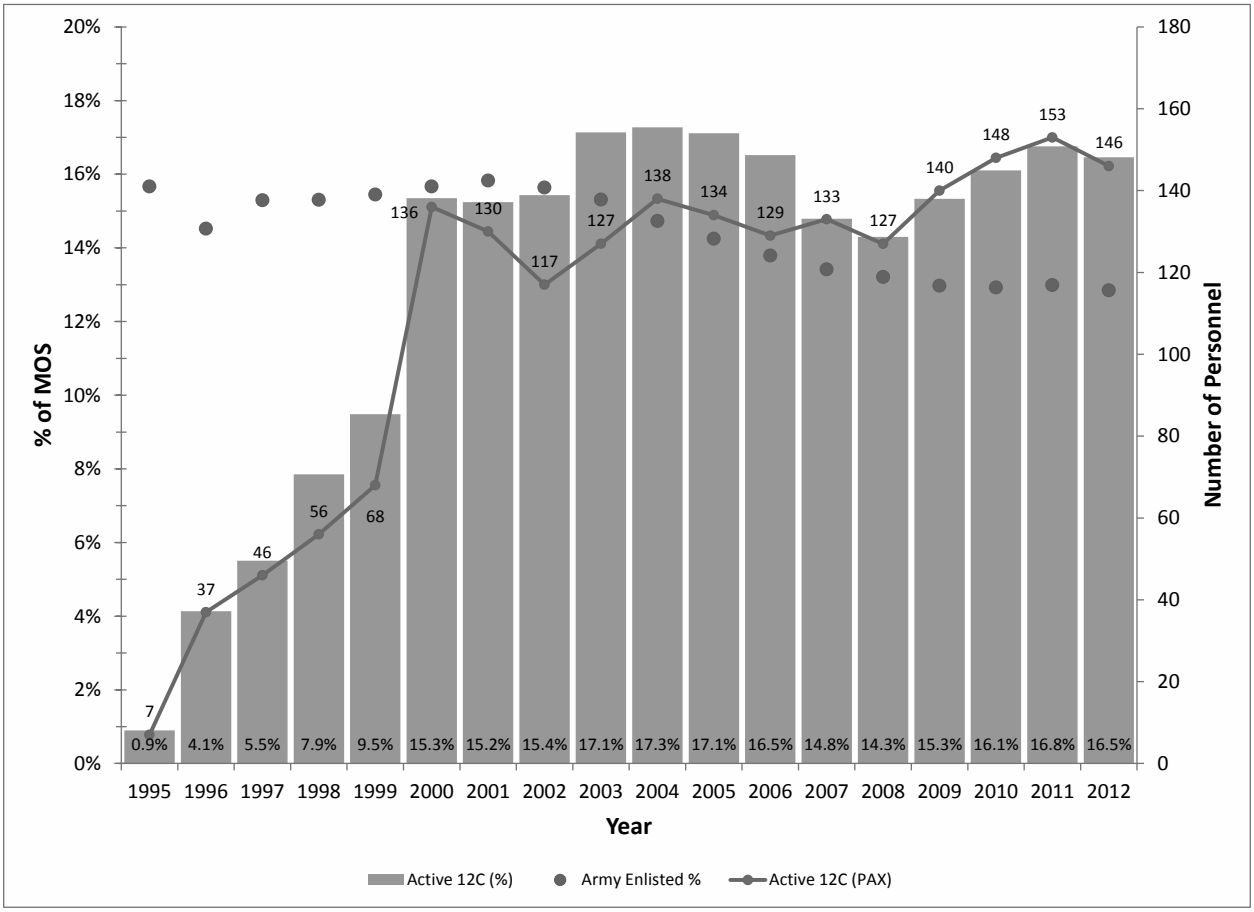



SOURCE: RAND analysis of DMDC data; Beckett and Chien, 2002, p. 58.
NOTE: The 2000 personnel numbers are omitted because of potential errors in the source data.

### Engineers

Many positions in the Engineer Corps had been closed to women because of their direct involvement in ground combat operations. Other positions have been open to women for a considerable period of time. The position of Bridge Crew Member (12C MOS) has been open to women since October 1994. The primary duties of a MOS 12C Bridge Crewmember are to provide conventional and powered bridge and rafting support for wet and dry gap crossing operations. This is a physically demanding job and has an Army physical demand rating of "very heavy" (Personnel Command [PERSCOM], 2010). A physical demand rating of very heavy means that the job entails lifting on an occasional basis over 100 pounds and frequently or constantly lifting in excess of 50 pounds (United States Army Research Institute of Environmental Medicine, 2008, pp. 5-6).

**Figure 2.7. Active Component Women Enlisted Bridging Engineers (MOS 12C)**




SOURCES: Harrell, Beckett, et al., 2002 (1995-1999 data); RAND analysis of DMDC data (2000-2012 data).

Women filled MOS 12C position rapidly after it was opened to them, so that by 2000 some 130 women (15% of the available active duty positions) were serving as bridging engineers (Figure 2.7). In addition, since 2003 active enlisted female participation in MOS 12C was slightly higher than their overall representation in the active component. One result of the closure of combat engineer jobs to women was that some non-combat engineer battalions (construction, bridging, and topography) were nearly fully integrated at the junior officer level. During the 1990s junior officer positions in the 94th and 565th Engineer Battalions in USAREUR were over 50% women. However, exclusion from combat units made it difficult for women to advance beyond the junior officer level (Grosskruger, 2008, pp. 44-45).

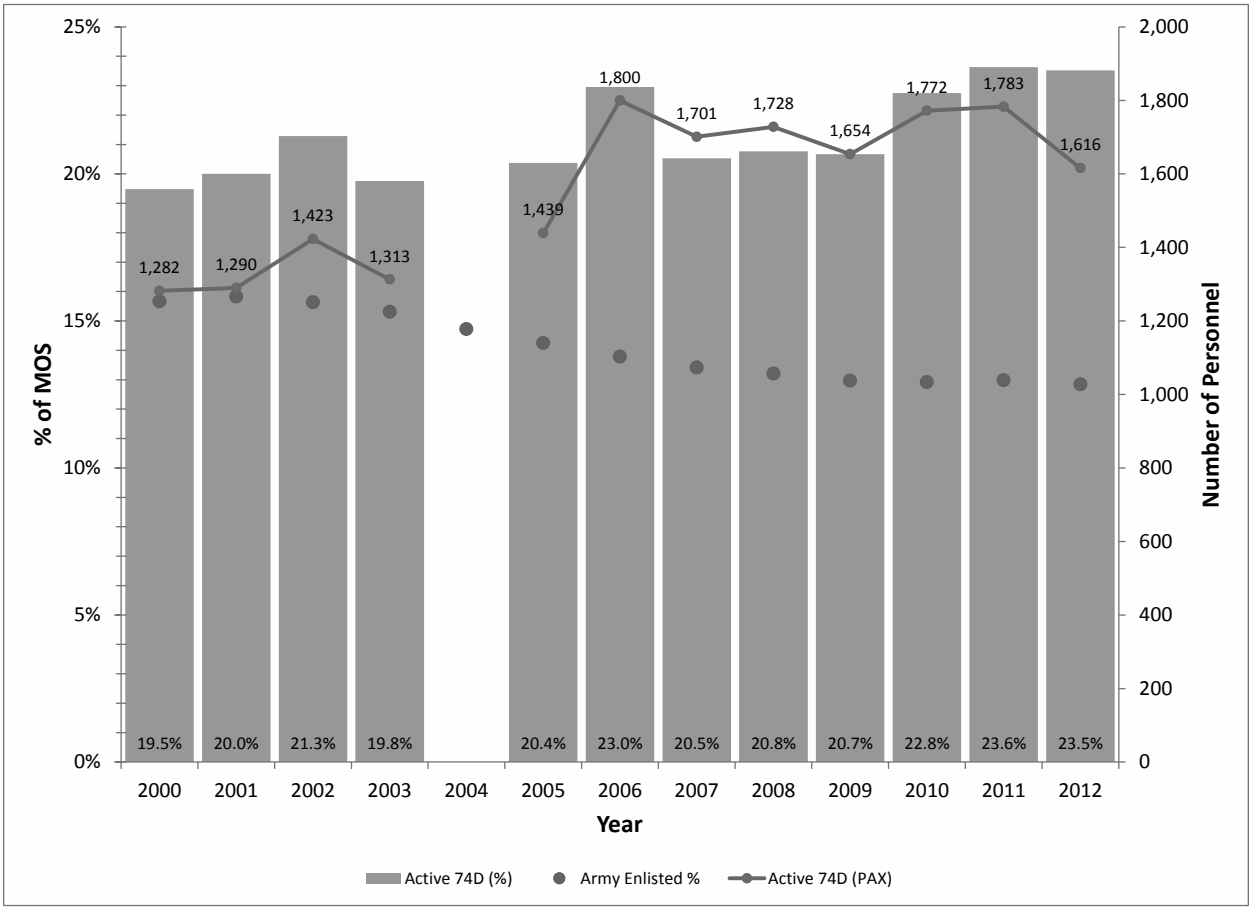
Women in engineering units have been involved in combat situations. During OIF II, women from the 1st Engineer Battalion were often attached to other units on combat patrols to interact with Iraqi females during search operations" (Solaro, 2006, pp. 83, 85-88). Women also have participated in the Army's Sapper Leader Course and, by early 2013, 55 had earned the Sapper tab and one (a Marine) graduated with the most points in her class. The Sapper Leader Course

lasts 28 days and teaches field craft, air operations, waterborne operations, mountaineering, and demolitions. It includes a patrolling phase which has a 10-day field training exercise. [15]

### Chemical, Biological, Radiological, Nuclear (CBRN) Specialist

The Chemical, Biological, Radiological, Nuclear (CBRN) jobs (MOS 74A and MOS 74D) comprise a set of military specialties in which Army women participate at a greater rate than their representation in the active force. As Figures 2.8 and 2.9 show, for most of the decade of 2000s women have occupied over 20% of the MOS 74A and 74D positions. CBRN specialists conduct CBRN reconnaissance and surveillance; perform decontamination operations; conduct obscuration operations; conduct CBRN sensitive site exploitation; and operate and perform operator maintenance on assigned CBRN defense and individual CBRN protective equipment (PERSCOM, 2010). These jobs also have a physical demand rating of "very heavy."

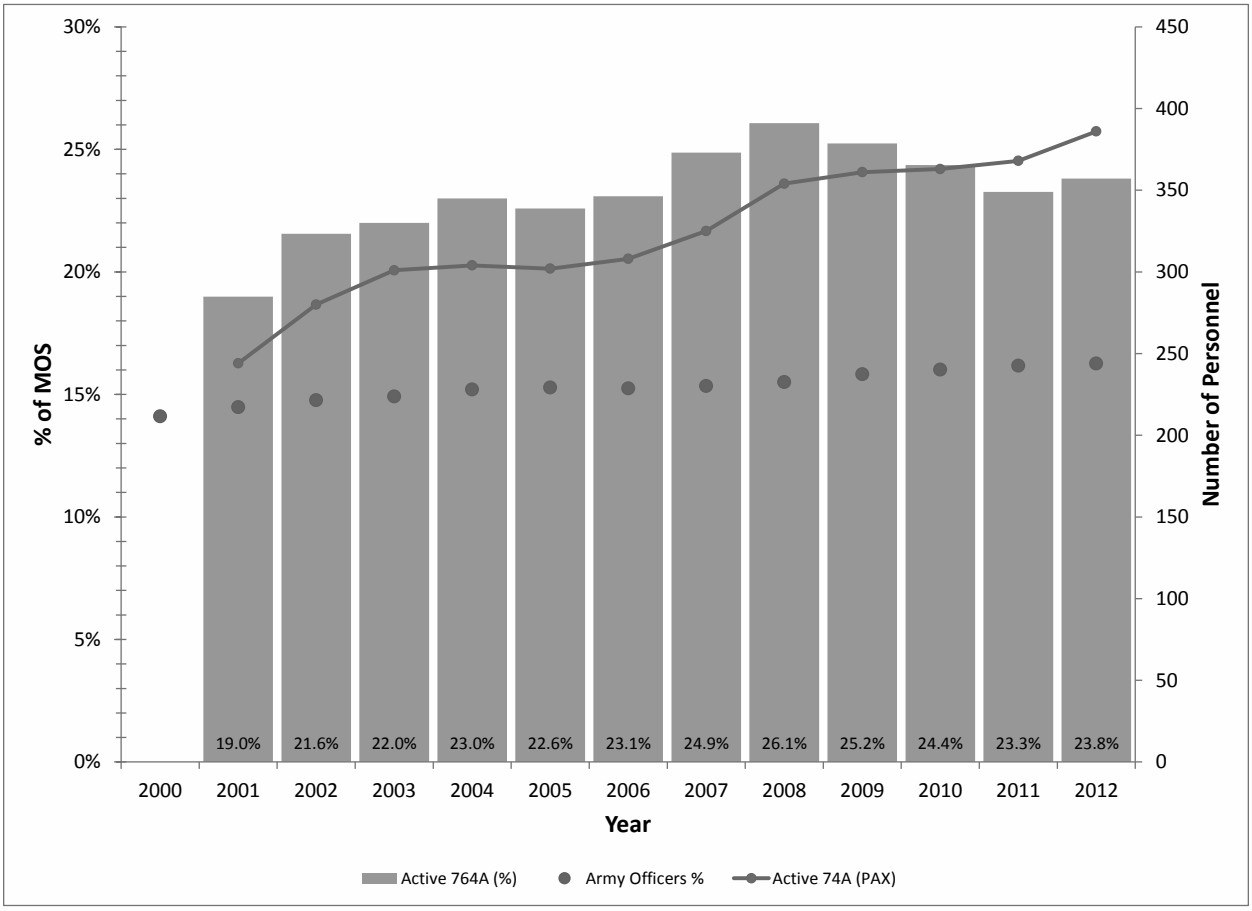
**Figure 2.8. Active Component Women Enlisted CBRN Personnel (MOS 74D)**




SOURCE: RAND analysis of DMDC data.
NOTE: 2004 figures excluded due to error in source date.

[15] The course has an overall graduation rate of about 50%, with women having a graduation rate of about 37% (Tan, 2012b; Buckeley, 2012; and Michaels, 2013).

**Figure 2.9. Active Component Women Officer CBRN Personnel (MOS 74A)**




SOURCE: RAND analysis of DMDC data.
NOTE: 2000 figures excluded due to error in source date.

## Evolution of Attitudes toward Gender Integration in the U.S. Military

Dating back to at least World War II, there were concerns that integrating women into units could adversely affect military performance, unit morale, pregnancy, and sexual harassment. Despite these concerns, one report on WACs during World War II found that "Women's morale held up excellent; pregnancy rates for those in the Pacific was like that of other overseas theaters - less than one half of the world WAC rate" (Treadwell 1954: 446). The case of WAC units was not without resistance by some. According to this report, women as a "group are subject to the label of 'unfit.' Women have to prove themselves the exception to the rule" (Treadwell 1954: 121). The report concluded, however, that "no evidence exists for gross moral breakdown as women in WACS were able to gradually convince the enlisted men their roles were to achieve military missions" (Treadwell 1954: 447).

Women continued to serve in the military during the 1960s and 1970s, and were particularly in demand as the Vietnam War became increasingly unpopular among the American public

(Stiehm 1989). In 1967, Congress passed Public Law 90-130, which eased previous restrictions on the promotion of women in the service branches. These changes were unpopular within the military at the time (Devilbiss 1990). Despite this culture of resistance toward women's participation in the military, the Army promoted two women to the rank of general three years later in 1970 (Devilbiss 1990).

The transition from conscription to the all-volunteer force (AVF) in 1973 marked a large upsurge in women's participation in the military, and raised concerned for some military leaders that women would face increased resistance serving alongside men. Research at the time found that women as a group were often perceived as less capable and possessing fewer leadership qualities than men. In a survey conducted by the Navy Personnel Research and Development Center in 1975, 890 male recruits were asked to rate their attitudes toward women using a five-point scale. Results showed that 66-percent of recruits agreed that women were "more emotional," 37-percent agreed that women had "less leadership ability," 36-percent agreed that women were "less stable," and 30-percent agreed that women were "more easily influenced" (Thomas 1976: 11).[16] In a 1972 survey administered to officers at the U.S. Naval War College, respondents were asked whether they agreed or disagree with the question, "Women officers should be given the same opportunities as male officers, including sea duty and flying status." Results showed that 57-percent of women agreed with this question, while 74-percent of the men did not (Coye, Denby, Hooper, and Mullen 1973: Pp. 71-72). Gendered differences in perceptions of competence may have affected job and promotion opportunities available to women. Coye and colleagues found that 43-percent of women strongly disagreed and another 41-percent generally disagreed with the statement that they were utilized as well as male officers in the Navy (pp. 76).

The extent to which male personnel were less likely to accept women as full-fledged members of their units in the 1970s may have reflected their previous experiences working with women. In one survey of Army soldiers from January 1974, researchers found that men were more accepting of women in the military if they had a women supervisor before joining the Army, had close friends in the Army that were women, or worked with a women in the Army (Segal and Woeful 1979). Studies of integration in the service academies provide similar support for the argument that the quality of contact matters for integrating women in all-male units. Durning (1978) found that contact with women significantly improved cadet attitudes about gender at the U.S. Naval Academy. DeFleur and colleagues looked explicitly at the effect of the quality of male cadets interactions and found that negative experiences during Basic Cadet Training (BCT) at the U.S. Air Force Academy could affect negatively male cadet attitudes toward women (DeFleur, Gillman, and Marshak, 1978).[17]

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[16] It is assumed that respondents were comparing women to men when answering these questions.

[17] DeFleur, Gillman, and Marshak (1978) draw directly on Allport's (1954) identification of the key components for effective intergroup contact. Meta-analyses conducted by Pettigrew and Tropp (2006) and Pettigrew et al (2011)

Since the 1970s, soldiers in the U.S. Army appear to have become more accepting of women in combat. There is evidence that some soldiers in the Army at the time that the AVF was launched were strongly opposed to women serving in combat units. In 1974, researchers sampled male and female Army soldiers at three domestic bases in the United States (Savell and Collins, 1975). The survey asked soldiers to answer questions about their underlying attitudes toward gender, classifying their answers into "traditional" or "contemporary" gender views. It also asked these soldiers about their attitudes toward women serving in the military.

Figure 2.10 shows the responses of male soldiers to the question, "Is the job 'rifle-carrying infantry foot soldier' an appropriate job for women?" The male soldiers could choose either "yes" or "no" to this question. Thirty percent of male soldiers holding "contemporary" gender views believed it was appropriate for women to serve in the infantry. The percentage was lower for male soldiers classified as having "traditional" gender views, with 12 percent of them expressing support for women in the infantry. It is important to note that this survey did not use a representative sample. Thus, the results shown here only highlight the attitudes of select soldiers, at a particular point in time, from select military installations in the continental United States.

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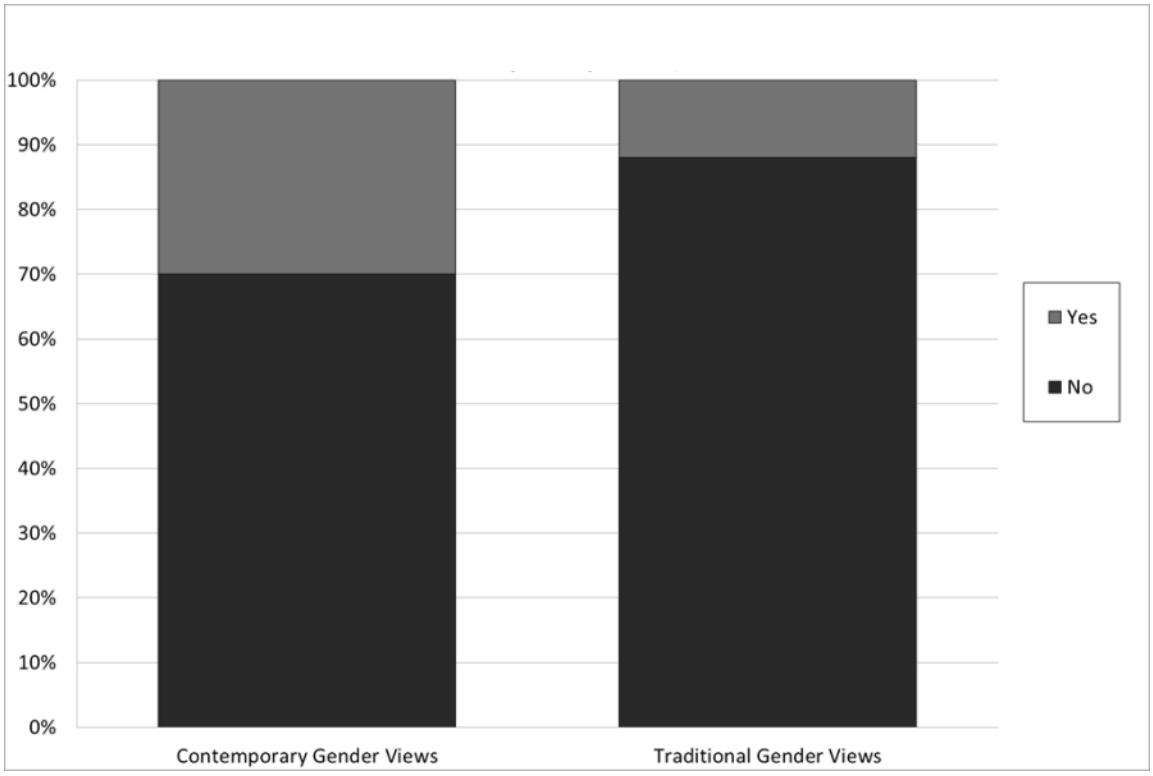
find broad support for the argument that intergroup contact typically reduces intergroup prejudice. However the conditions that contribute to prejudice reduction are better thought of as 'interdependent bundles' rather than independent causal factors.

**Figure 2.10 Is the Job "Rifle-Carrying Infantry Foot Soldier" an Appropriate Job for Women? Survey of Army Soldiers, 1974**




SOURCE: Savell and Collins, 1975.

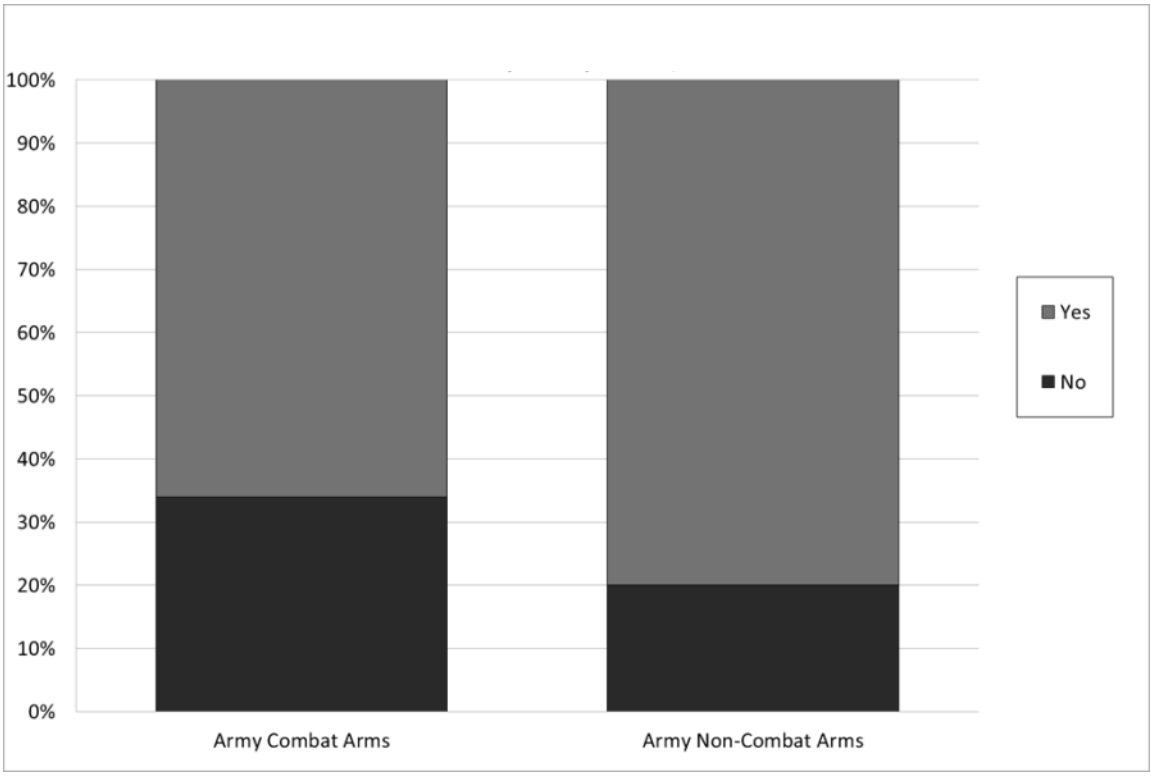
In-depth interviews undertaken by Rosanna Hertz in 1985 with U.S. Air Force security specialists and their wives prior to integrating women into the Air Force's male security specialty identified strong opposition to integrating women into the specialty (Hertz, 1996). The airmen voiced two main concerns. They expected that integrating women would threaten

- "the solidarity of the work culture where the influx of outsiders would dilute, if not eradicate, the trust and camaraderie that helps the men get through the shift" (Hertz, 1996, p. 251), and
- "the content of the culture, especially a distinct orientation to an alliance of equality (among men) and dominance (of men over women)." (Hertz, 1996, p. 251)

Hertz found that the airmen's wives' main concern was that the presence of women in the unit might lead to sexual infidelity.

Over time, male soldiers appear to have become more accepting of women serving in the military and in combat positions. In the mid-1990s RAND administered a survey to U.S. service personnel regarding the integration of women into the military (Harrell and Miller, 1997). Figure 2.11 shows that when male soldiers were asked whether women should be allowed to serve in their occupation or career field, a majority believed that women should be allowed to serve in combat arms and non-combat arms specialties.

**Figure 2.11. "Do You Think Women Should Be Allowed to Serve in Your Occupation/Career Field?" Survey of Army Soldiers, late-1990s**




SOURCE: Harrell and Miller, 1997.

For those in combat arms positions, 66 percent of male soldiers believed the Army should allow women to serve in their military occupational specialty. This number increased for soldiers in non-combat arms roles, with 80 percent of male soldiers reporting support for women in their specialty. Because of sample characteristics and question wording, the comparison of responses of Army soldiers in 1974 and the late-1990s has limitations. However, the magnitude of differences in soldier attitudes suggests that Army personnel may have become more accepting of women in combat roles since the beginning years of the AVF.

Although the magnitude of the differences in male and female perceptions of women's performance has shrunk over time, gendered differences persist. Many serving women have faced a lack of acceptance and resentment from men in their units, particularly from junior enlisted men. Survey data has found that attitudes of female soldiers have been significantly more accepting of women serving in the military than male soldiers' attitudes (Rosen, et al 1996; Miller, 1997).

Attitudes toward women in the military reflect the stereotypes that are often applied to women in the military as a group. Ethnographic studies have consistently identified a spectrum of adverse stereotypes applied to and experienced by female military personnel that create challenges that women must navigate successfully to gain acceptance. Connie Brownson

catalogues the perennial stereotypes facing female military personnel as *social*: "'favored', 'slackers', and 'whiners;'" and *sexual*: as "'bitch', 'slut' or 'dyke'" (Brownson, 2014, p 14). As Anthony King notes, it is the sexual categories, "above all, the slut-bitch binary, which have be particularly obstructive" (King, 2015, p 381). These gender stereotypes serve as lenses through which individual women's performance are viewed, particularly in environments in which there are relatively few women. Emerald Archer has examined the impact of gender stereotypes on female Marine's performance through interviews with male and female Marines and found that gender-role stereotypes can contribute to reduced camaraderie and mentorship, a reduced sense of shared mission and ultimately poorer performance (Archer, 2012).

Resentment toward female military personnel often stems from a perception that double standards are applied to men and women (Harrell and Miller, 1997; Archer, 2012; Do et al, 2013; Brownson, 2014). Across studies using survey and interview data, double standards were most commonly noted with regard to physical fitness standards and the types of tasks women are asked to perform. Women were seen as enjoying privileged positions in the services due to perceptions that they were asked to do less in terms of physical fitness standards, and were often given less strenuous tasks. Miller (1997) conducted field research on soldiers' attitudinal patterns at eight domestic Army posts, two national training centers, and posts in Somalia, Macedonia, and Haiti and explored ways in which male soldiers expressed their resentment toward the female soldiers with whom they served. The results from Miller's interviews of these men showed that some of them feared expressing their beliefs about women in the military, with others using indirect forms of gender harassment against women.[18] Some examples of these indirect forms of harassment included "sabotage of women soldiers, foot-dragging, feigning ignorance, constant scrutiny, gossip and rumors, and indirect threats. This harassment targets women but is not sexual; often it cannot be traced to its source." (Miller 1997: 33)

In addition to the strategies of gender harassment documented by Miller (1997), many women in the military have also experienced sexual harassment and sexual assault. In a 2014 census survey of all active-duty women and 25 percent of active duty men, Andrew Morral, Kristie Gore, and colleagues found that more than one-quarter of active-duty female personnel may have experienced sexual harassment or gender discrimination during the previous year, while approximately five percent of active-duty female personnel may have experienced sexual assault during the previous year (Morral, Gore, et al, 2014). In a series of twenty-three focus groups DACOWITS held in 2011 to assess the prevalence of sexual assault and harassment and effectiveness of prevention measures in which active and reserve component personnel participated, participants highlighted the adverse consequences of sexual assault and harassment

[18] Gender harassment is a distinct concept from sexual harassment. The former refers to "harassment that is not sexual, and is used to enforce traditional gender roles, or in response to the violation of these roles." (Miller 1997; 35). Sexual harassment, in contrast, refers to situations where harassment that is based on sexual means. Sexual harassment can lead to gender harassment; and, gender harassment can lead to sexual harassment.

not only to its victims, but to units more broadly. As DACOWITS noted, "overall, most Service members thought that sexual harassment creates an environment of distrust that negatively affects unit readiness and the mission as a whole. Some Service members additionally stated that it is difficult to perform one's duties in a harassing and hostile work environment." (DACOWITS, 2011, p8)

## Integration of Excluded Groups in the U.S. Military

As we noted at the outset of this chapter, the integration of women into the U.S. military has been politically contentious and at times it has proceeded in the face of substantial opposition within the armed forces. Women are not the only out-group that has faced such a situation. In this section we review select research on the integration of African-Americans and openly gay and lesbian soldiers in the armed forces, focusing on the patterns of acceptance and opposition prior to and after the decisions taken to integrate those groups. We examine survey data of military personnel from before and (approximately) after the integration of these groups.

Taken together, the general pattern across all through waves of integration—integration of women, African-Americans and openly gay and lesbian soldiers in the armed forces—is that, prior to integration, U.S. military personnel tended to be strongly opposed. However, their attitudes became more accepting of integration after a decision to allow individuals from these groups to join. We note that the number of cases is small, each is unique, and each presents only limited parallels with potential integration of women in all military specialties after the rescission of DGCDAR. For example, there were no issues with physical strength of African-Americans or the intellectual capacity of women. And neither of these issues -- physical or intellectual -- applied to openly gay and lesbian personnel. But the patterns of acceptance and opposition are useful to keep in mind as we consider the data on integration of women in all military occupations and specialties.

We begin with a review of survey data on soldiers before and after the integration of African-Americans during World War II and the Korean War. We then review survey data on U.S. military personnel attitudes toward allowing openly gay and lesbian soldiers to serve in the military.

### *Racial Integration*

African-Americans have served in every U.S. military conflict since the Revolutionary War (Segal, 1989). Until the late 1940's, the military maintained racially segregated units. In 1945 and 1950, the U.S. Army Board issued reports on racial integration of military units (Moskos, 1966). Both reports recommended that racial segregation remain largely intact due to concerns about the performance of African-American soldiers. Such concerns stemmed from the disproportionate percentage of African-Americans in the lowest categories of the U.S Army's aptitude classification system (Moskos, 1966). For example, 60 percent of African American

soldiers in the Army fell into the lowest aptitude categories in 1950, while 29 percent of Whites fell into the same category (Moskos, 1966).

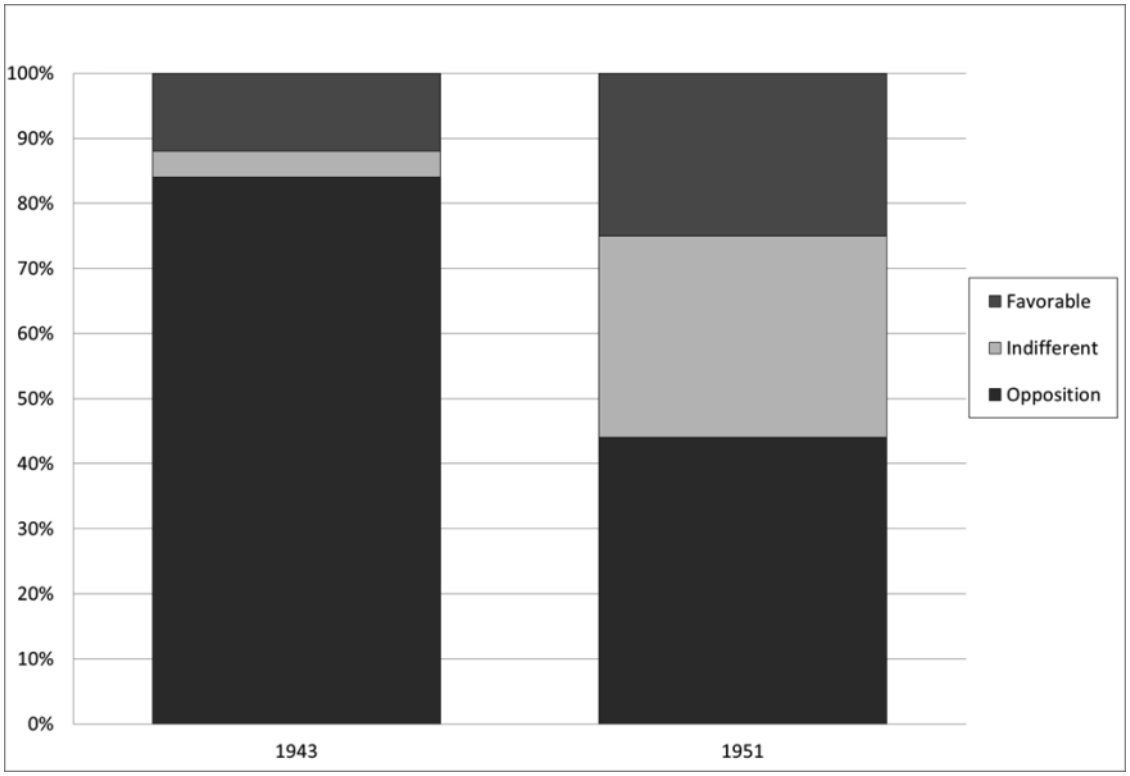
President Harry Truman signed Executive Order 9381 in 1948 that began the process of racial desegregation in the armed services. The results from two surveys provide some evidence on the effects of racial segregation and desegregation on soldier attitudes about this policy change.

The first survey is *The American Soldier* studies that Samuel Stouffer and colleagues collected in 1943 during World War II (Stouffer et al., 1949).[19] The second survey is from Project Clear, a survey commissioned by the U.S. Department of Defense in 1951, during the Korean War. The comparison of similar question items from both surveys provides some evidence on changes in soldier attitudes before and after the signing of Executive Order 9381.

Figure 2.12 compares the results from these two surveys. It shows noticeable changes in White soldier attitudes about racial integration. In 1943, 84 percent of White soldiers in the Army opposed racial integration, 12 percent favored integration, and the remaining four percent reported indifference. The distribution of these attitudes changed during the Korean War, when the U.S. Army began to integrate soldiers into combat units. In 1951, 44 percent of White soldiers opposed racial integration, 31 percent were indifferent, and 25 percent favored racial integration of Army units.

[19] Although the question wording and sampling procedures adopted by Stouffer and colleagues are crude by contemporary standards of social science research, they highlight important patterns in soldier attitudes.

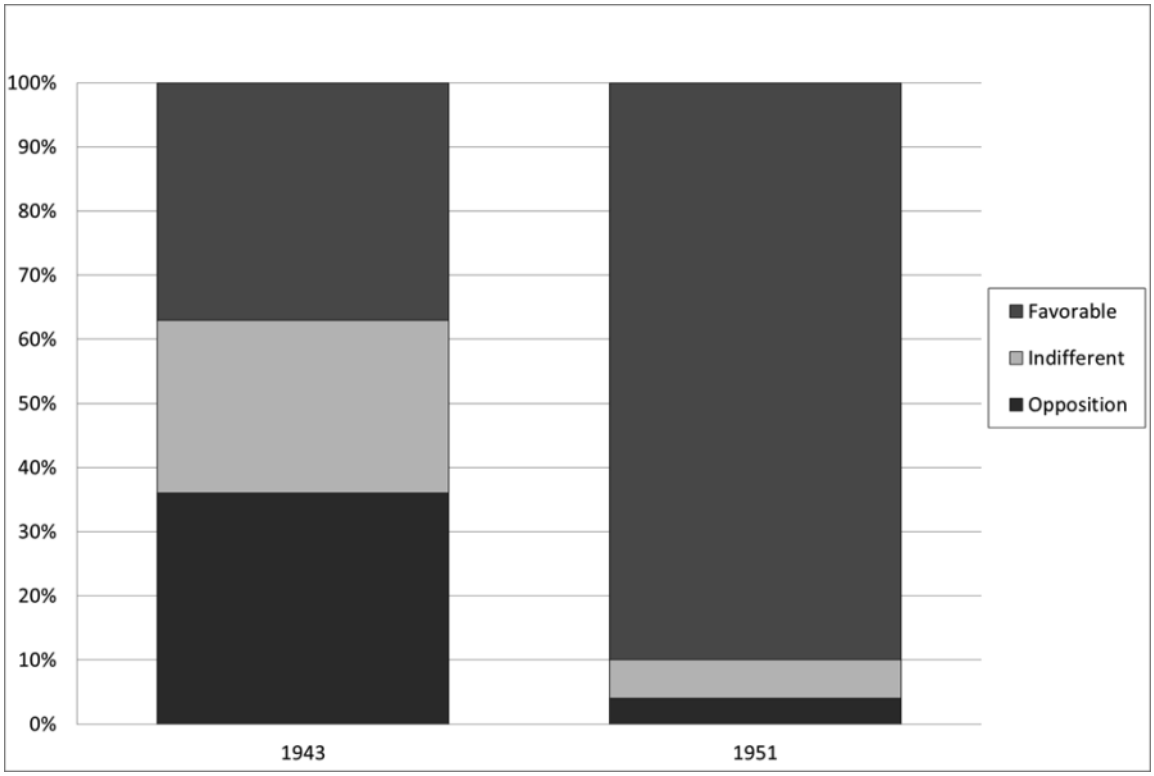
**Figure 2.12. Attitudes of White Soldiers toward Racial Integration in the Segregated Army, 1943 and 1951**




SOURCE: Moskos, 1966.

Similar changes in attitudes also occurred among African-American soldiers between World War II and the Korean War. Figure 2.13 shows that 36 percent of African-American soldiers in the Army were opposed to racial integration during World War II, 27 percent were indifferent, and 37 percent supported integration (Moskos, 1966). By 1951, substantial changes in attitudes toward racial integration occurred among African-American soldiers in the Army. Survey data from Project Clear show that 90 percent of African-American soldiers favored racial integration in the Army, with six percent indifferent and the remaining four percent opposed.

**Figure 2.13. Attitudes of African-American Soldiers toward Racial Integration in the Segregated Army, 1943 and 1951**




SOURCE: Moskos, 1966.

An important finding from *The American Soldier* was that interracial contact reduced racial prejudice of soldiers. Research from Project Clear found similar results in the U.S. Army during the Korean War. In accordance with the Executive Order 9381, the U.S. Army began racial desegregation as the Korean War progressed. The survey data from Project Clear includes measures of racial attitudes by soldiers in all-White units and racially integrated units. There were noticeable differences in racial attitudes between these units (Moskos, 1966, 140-141).

For soldiers in all-White units in 1951, 51 percent reported that infantrymen in segregated outfits were better than mixed-race units with 44 percent reporting strong objections to racial integration in general (Moskos, 1966, p. 140). The results also showed that 79 percent of soldiers in segregated units claimed officers gave lower ratings to African-Americans than Whites (Moskos, 1966, p. 141). The distribution of these attitudes is noticeably different for Army soldiers in racially integrated units. For example, 31 percent of soldiers in these integrated units reported that infantrymen in segregated outfits were better and 17 percent of soldiers held strong objections to units of Whites and African-Americans. Further, only 28 percent of soldiers from integrated units believed that officers rated African-Americans worse in comparison to Whites (Moskos, 1966, p. 141).

Survey data from Project Clear and *The American Soldier* have limitations. For example, the former survey used questions with strongly worded descriptions of racial integration (e.g. feeling about serving in a platoon containing both Whites and Blacks) compared to *The American Soldier* surveys (e.g. should Whites and Blacks serve in separate outfits) (Moskos, 1966, p. 139). The U.S. Army did not solve its issue of race relations overnight. Just like in civilian society, racial tensions continued to exist in the military during and after the Korean War. For example, racial strife became noticeable during the Vietnam War with growing awareness of minority under-representation by rank and military occupational specialties (Moskos and Butler, 1996). Despite these limitations, early research on the U.S. Army shows considerable changes to soldier attitudes about racial integration of military units in a relatively short time period.

### *Integration of Homosexual Personnel*

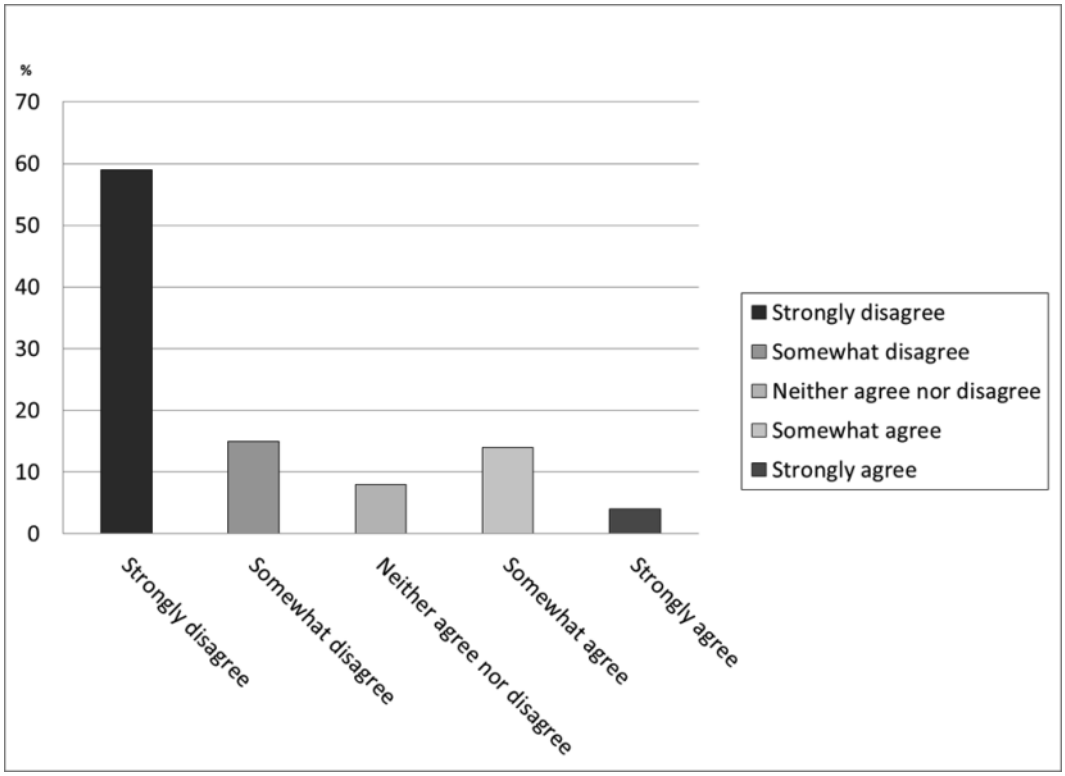
Historically the U.S. military has used a variety of criteria to exclude openly homosexual personnel. For the most part, military personnel policies focused on sexual behaviors (e.g. sodomy) instead of the sexual identities of soldiers (e.g. self-identifying as a homosexual) when excluding of homosexual soldiers (Segal, Segal, and Reed, 2013). After World War II, the various services adopted different exclusionary policies that they would review periodically. In 1982, the U.S. military standardized its exclusionary policies with the promulgation of DoD Directive 1332.14, which stated that homosexuality was incompatible with military service. Under the Directive, homosexuality was considered a medical disability and the services used court-martials to decide which soldiers would receive an honorable discharge for being gay or lesbian.

In 1994, the DoD adopted a new policy commonly known as “Don’t ask, Don’t tell” (DADT). Under the DADT policy, the military distinguished between sexual identity and sexual behaviors. The military no longer would discharge soldiers solely based on suspicion of the former, but would discharge homosexuals who expressed their sexuality in public.

In 1993, the *Los Angeles Times* conducted a survey of enlisted soldiers about their views on removing the ban on homosexuals in the military. The survey used a convenience sample of service members found in public areas outside of 38 military facilities in the continental United States (Rostker et al., 1993). While the survey sample was not representative, it did attempt to weigh the sample based on the demographic characteristics of the military.

Figure 2.14 shows that an overwhelming majority of soldiers opposed the removal of the ban on homosexuals in the armed services, with 74 percent disapproving (59 percent strongly disapproving and 15 percent somewhat disapproving). It is important to note that this survey was from 1993, so the question refers to the pre-DADT ban on both homosexual identity (e.g. knowing one is gay or lesbian) and homosexual behaviors (e.g. gay or lesbian individuals engaging in or expressing their sexuality).

**Figure 2.14. Enlisted Soldiers' Opinions on Removing the Ban on Homosexuals in the Armed Services, 1993**



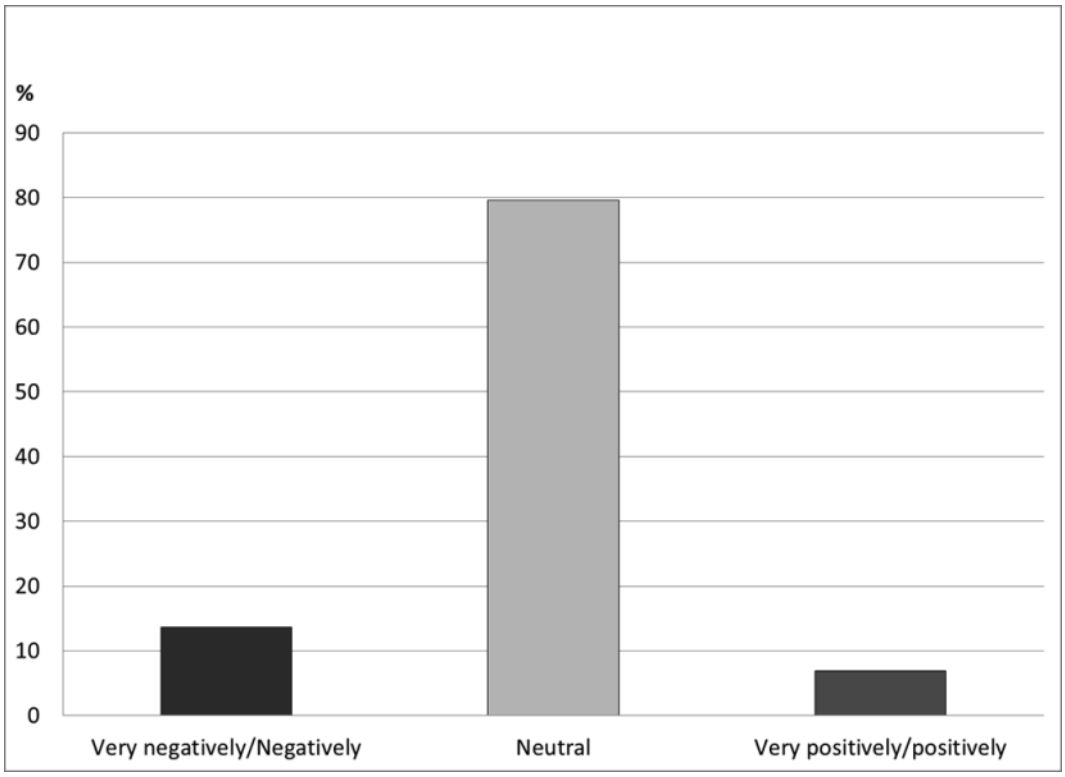

SOURCE: Data reported in Rostker et al., 1993, pp. 210-214.

Prior to the repeal of DADT, attitudes toward serving with openly gay and lesbian personnel appear to have become more accepting than in 1993. In a 2006 survey of attitudes of Iraq and Afghanistan veterans allowing gays and lesbians to openly serve, Moradi and Miller (2010) found that opposition to allowing gays and lesbians to openly serve had fallen to 40 percent.

In 2010, the DoD reevaluated its DADT policy by commissioning a survey on homosexuality in the military to over one-million active-duty, enlisted soldiers and officers (Westat, 2010). A survey question asked soldiers, "If DADT is repealed and you are working with a Service member in your immediate unit who has said he or she is gay or lesbian, how, if at all, would it affect… your personal readiness." Figure 2.15 shows that, of respondents who believed they have never served with a gay or lesbian service member, 79.6 percent held neutral attitudes about how the repeal of DADT would affect their personal readiness, 6.9 percent reported that it would have a positive effect on their readiness, and 13.6 percent believed it would affect negatively their readiness. The distribution represents soldiers who claimed they have never served with someone who is homosexual. It is possible that some of these soldiers had served with someone who is homosexual, but they did not know. This survey also asked the same question of soldiers who have currently served with, or previously served with, homosexual soldiers. The same pattern of results exists for these sub-groups, too. Much of the findings from this Westat study

found similar findings on soldier attitudes on unit cohesion, effectiveness, military readiness, and retention: a sizeable percentage of soldiers held neutral views about the effects of repealing DADT on these topics.

**Figure 2.15. Impact of the Repeal of DADT on Soldier's Personal Readiness (Respondents Who Believed They Never Served with a Gay or Lesbian Service Member), 2010**




SOURCE: Westat, 2010.

The results from the Westat survey mirror those of other studies that have assessed the growing acceptance of openly gay and lesbian personnel in the armed forces. A study conducted by Belkin and colleagues assessing a multitude of data sources regarding the effect of the repeal of DADT concluded that the "repeal has had no overall negative impact on military readiness or its component dimensions, including cohesion, recruitment, retention, assaults, harassment, or morale" (Belkin et al., 2013).

As we noted earlier, the comparisons have limitations. However, they do suggest a noticeable shift in attitudes of soldiers between 1993 and 2010. The *Los Angeles Times* survey indicates strong opposition among soldiers about replacing the overall ban on homosexuals in the military (Rostker et al., 1993). In 2010, most soldiers held neutral attitudes regarding the effects of repealing DADT.

## Conclusion

Broadly speaking, similar patterns of opposition to integrating excluded groups into the armed forces existed at the outset of integrating women, African-Americans and openly gay and lesbian personnel into the U.S. armed forces. In each case, opposition to integrating excluded group personnel declined when it became evident that their inclusion did not reduce unit readiness or cohesion. A key component to maintaining unit readiness is the identification, validation and application of standards for military occupations. As a result, how standards are constructed and applied has played a central role in political debates surrounding integration of excluded groups in the U.S. military. Proponents advocating strategies to increase the participation of the previously excluded group have at times called into question standards' restrictiveness, while those concerned about the adverse impact of the excluded group's integration have emphasized the importance of maintaining stringent standards. As such, questions regarding how to construct standards can become highly politicized, and reflect larger political debates surrounding personnel policies in the U.S. armed forces. In other words, issues of cohesion and standards construction have been used by advocates to argue in favor of or to prevent policy change. We note that these issues are important in their own right but their use by policy advocates is never far since, as we noted at the outset, military personnel policy is politically determined.

# 3. Physical Ability and Stress Response Differences between Males and Females

## Introduction

All of the SOF service components have in place competitive assessment and selection processes, followed by lengthy, sometimes years-long, grueling training, eventually leading to placement in units. Given the extremely physically demanding nature of SOF operations, all of the SOF service components have highly demanding standards for selection to SOF, fulfillment of training goals, and assignment to units.

The physical abilities of SOF personnel are akin to those of elite athletes and the standards within the SOF service component are meant to ensure such a high level of fitness and strength for operational success. Standards are also a major factor in establishing and maintaining perceptions of competence, which is important for cohesion. As we discuss later, maintaining high standards has emerged as a critical issue and a top concern for SOF personnel in survey results and in the focus group sessions.

The rescission of DGCDAR has removed gender-restrictive barriers in the military and it has mandated the use of valid gender-neutral standards. Although standards have been in place for SOF specialties for decades, in the aftermath of the rescission of DGCDAR the Services have taken steps to ensure that the standards are current and gender-neutral.[20] The rescission has sparked a discussion as to the meaning of the term gender-neutral standards, the applicability of concepts from the civilian world to highly specialized military environments, and the extent to which existing standards need modification. These concerns are fundamental to SOF identity, since passing through the highly physically demanding accession and selection process constitutes a rite of passage for SOF personnel and contributes to the sense of common identity. For example, the demands of SOF selection processes are reflected by very high attrition rates in training, with historical attrition and voluntary withdrawal rates between 40 and 80 percent (Beal, 2010, Taylor et al, 2006, Walker et al, 2010). High injury rates have also been noted as a cause for attrition and delayed graduation. In the course of our research, and especially as part of the task on assisting the SOF service components in their standards validation processes, the most common question that arose concerned the likelihood of women to meet gender-neutral

[20] One of the tasks in our effort consisted of assisting the SOF service components in their reviews of standards to ensure that they are gender-neutral. This support involved a combination of site visits to observe assessment and selection processes, discussions on planned validation strategies, and written correspondence to SOCOM on addressing key issues. Much of this feedback is compiled and summarized in Chapter 7. The individual components have proceeded at a different pace. The SOF service components of the Army and the Marines also have participated in the larger reviews regarding the role of women in those services.

standards and the physical demands in SOF specialties and how well will women respond to the stressors they are likely to be exposed to during SOF operations.

To address these questions, the natural tendency might be to review gender difference research to determine how women compare to men on relevant abilities. However, this approach is limited in at least two fundamental ways. First, gender difference research provides an analysis of average differences between men and women, which does not tell us whether an individual woman is capable of qualifying nor how she will respond to different stressors, particularly when trained in SOF. Second, the populations used in gender difference research including the general population, general military population, or even elite athletes are not always representative of the population of men and women who would likely qualify as special operators.

Acknowledging these limitations, gender difference research can be useful in providing insight on general challenges women may face in qualifying and performing in an operational environment. Under a known set of minimum standards, this body of research may also be useful in providing realistic expectations about the proportion of women who would be eligible for assessment and selection into a SOF specialty. Therefore, this chapter explores gender differences with the understanding that such research may be informative but has limited generalizability to the SOF community.

This chapter is organized into two main sections. First, we begin with an overview of the research examining sex and gender differences related to physical ability, physiology and risk of injury. We also describe some potential medical challenges in addition to several factors that may influence observed gender differences and a discussion on how these factors may affect the interpretation of observed differences. The second section provides an overview of the sex and gender differences in the stress responses. *Sex* refers to the biological differences between male and female, whereas *gender* refers to the socially constructed roles and relationships that are differentially applied to men and women. In particular, this section provides a discussion of influences on the way our central and autonomic nervous systems respond to stress, as well as the influence of biology, psychology, and environment. Both sections conclude with a summary of main differences between males and females, followed by limitations of existing research. In other words, the first section of this chapter assesses the research regarding the question of whether women are physically up to the demands of SOF, while the second section discusses the research that can shed light on whether physiological reasons may make women less suitable for the extremely stressful environments in which SOF sometimes operate.

To summarize our findings, research exploring differences between males and females on physical ability and motor skill tests suggest that males generally outperform females. These differences begin to expand following puberty and may be partially influenced by environmental factors. Although there are often large differences between men and women, primary emphasis must be placed on an individual's capabilities to perform critical tasks and individual risks for developing an injury. For purposes of understanding the relevance of physiological differences in the ability of women to qualify for SOF specialties, in almost all cases, additional screening (e.g.,

physical ability test) will be a better indicator of performance and risk of injury compared to simply knowing whether one is a male or female. For example, women are on average more susceptible to fatigue when carrying heavy loads (Knapik et al, 2004; Drain et al, 2010)[21], however, these differences can largely be attributed to size differences between men and women, with women having less overall lean body mass. With appropriate preparation and training, women can increase their levels of fitness, which will reduce their risk of injury and increase their performance on physically demanding tasks. Recognizing that it is each individual's history, physiology and physical fitness that will influence performance levels, fatigue, and risk of injury is critical to facilitating potential gender integration into SOF.

In terms of stress response, men and women respond to stress differently from one another, although much depends on the specific stressor and context. The cautionary note is that many of the studies on stress response are based on non-military populations and on circumstances that may have limited applicability to situations of extreme stress faced by SOF personnel. Just like with physical ability, individual differences and prior experiences have a greater impact on stress response than sex or gender. Additional screening will be a better indicator of stress response rather than broad distinctions along male-female lines. Stress response can be altered as individuals learn from experience and from specific training designed to cope with specific stressors.

## How do men and women compare on measures of physical ability?

Questions about the ability of women to perform physically demanding tasks in military and non-military occupations (e.g., fire, police) has been a focus of extensive research and discussion for several decades (Adams, 1979; Quester, 1977; Greene, 1980; Campbell, 1993; and Sharp, 1994). Consequently, hundreds of studies have been conducted to determine the extent to which men and women differ on a wide range of abilities. These studies often have led to large qualitative and quantitative reviews (i.e., meta-analyes), which can be used to summarize the magnitude of these differences and sometimes offer potential explanations for these differences.

### *Differences between Average Males and Females*

Overall, studies have shown that men, on average, score better on tests of muscular strength and cardiovascular (i.e., aerobic) endurance compared to women. However, men and women do not differ on tests of movement quality such as flexibility and balance. A recent meta-analysis, combining 113 individual studies, confirms these general findings (Courtright et al., 2013). More

[21] The amount of weight carried by military personnel is influenced by multiple factors including mission requirements, threat profile, and technology. Although recommendations have been made to reduce the amount of weight carried, the amount of weight carried has progressively increased over time. These heavy loads come at a cost for both men and women, as injury risk is increased particularly as marching duration and frequency are increased.

specifically, the study found large differences between males and females on both tests of muscular strength (δ=1.81)[22] and cardiovascular endurance (δ=2.01), but no meaningful differences on movement quality (δ-.06). One important finding was that the magnitude of gender differences may vary depending on the specificity of the ability measure. More specifically, tests of upper body strength and total body strength resulted in the largest differences on measures of strength (δ=1.98 and 2.34, respectively). In contrast, measures of core strength resulted in no meaningful differences between men and women (δ=.27). Gender differences on two types of movement quality, flexibility and balance, indicated no meaningful differences while a third type of movement quality, coordination, indicated moderate differences favoring males (δ=.60).

A similar meta-analysis examined not only gender differences in these basic abilities but also computed average differences between men and women on specific physical ability tests (Anderson and Robson, 2013).[23] For example, an examination of two commonly used tests in the military showed very large differences favoring men for push-ups (*d*=1.26) and moderate differences, also favoring men, for sit-ups (*d*=0.60). Also as expected, the largest difference between men and women was found for the bench press test (*d*=2.09), which is a measure of upper body strength.

### *Interpreting Average Differences*

Several factors must be considered when interpreting the results from these studies. First, the magnitude of observed differences between men and women on physical ability tests varies across studies and across abilities. This point is demonstrated by reviewing the 80% credibility intervals found in the results section of quantitative reviews (i.e., meta-analyses), which provide an upper and lower limit for which we might expect to find such differences. If the credibility interval includes zero, the results suggest no consistent differences between men and women. Furthermore, wide intervals suggest considerable differences in results across studies. That is, the results of some studies reveal large differences between men and women while other studies likely found little to no differences. In other words, increased confidence in estimates of average differences is increased when a) the credibility interval does not include zero, and b) the range of the credibility interval is narrow.

Although physical ability differences are expected between men and women on average, it is important to examine the potential range of these differences and to recognize that there are women who will achieve exceptionally high scores. In other words, average gender differences can be misleading when decisions are being made about individuals. Average differences

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[22] δ indicates sample-size weight mean effect size corrected for sampling error and measurement error in the outcome variable. Positive values indicate better performance by males. A value of zero would indicate no differences between men and women. Values above one indicate large differences between subgroups.

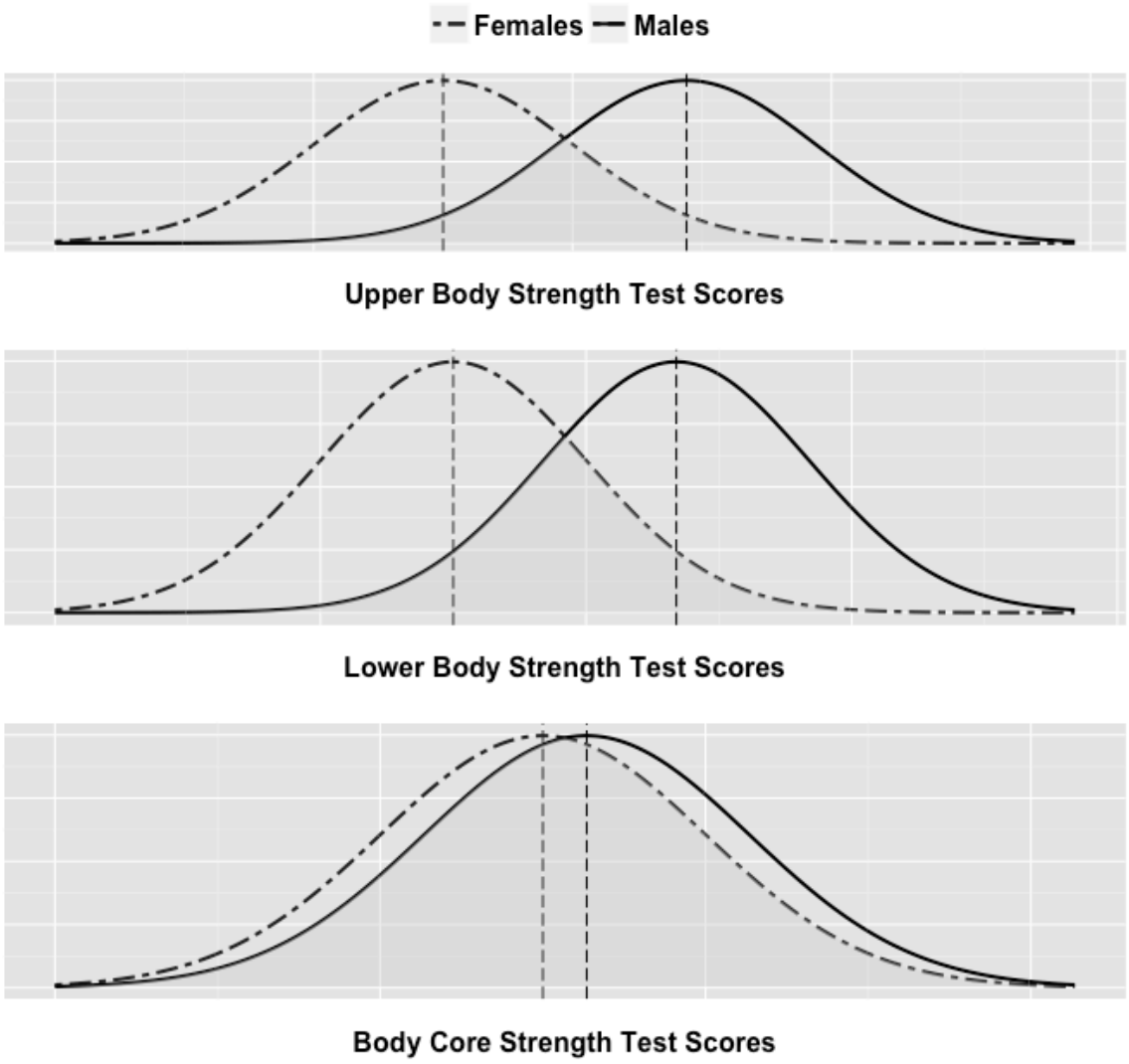
[23] Paper available from Robson; send request to smrobson@rand.org

between men and women will also decrease when comparisons are made on only those individuals passing a cut score on a physical ability test. That is, the differences between the general population of men and women on a strength test will be greater than the differences between a subset of men and women who have the ability to lift at least 100 pounds. Therefore, the interpretation of observed differences will depend to some extent on the sample of men and women who are being compared. In the context of SOF, this means that the observed differences between men and women fully qualifying and passing all job-related standards will likely be less pronounced than many of the differences reported in the scientific literature.

Another factor to consider when examining average differences between men and women is the extent to which the distributions of scores overlap. Differences can be visually interpreted assuming physical ability scores are normally distributed for men and women, in which most individuals will score at the mean (of their gender subgroup) and fewer individuals will score towards the extremes (i.e., either very high scores or very low scores). Figure 3.1 illustrates the average differences, as reported by between men and women on strength across three different regions of the body: a) upper, b) lower, and c) core[24]. The distance between the curves represents the magnitude of the difference. The less the curves overlap, the greater the difference between men and women. As the Figure shows, very few women would be expected to score above the average male score, which is represented by the dashed line. However, the differences between men and women on body core strength are minimal and not significant. When the distributions have minimal overlap, it is important to recognize that very few women would be expected to fall within the highest ranges of physical fitness of men. Finally, it is important to recognize that these distributions were constructed based on single point estimates derived from meta-analyses. A more thorough interpretation of differences between men and women can be achieved by examining confidence intervals, which provide a range where the average score of each group is likely to fall on a given ability (see Cumming and Finch, 2005).

[24] The SOF service components should consider extending these analyses by examining physical fitness scores on relevant tests among military personnel.

**Figure 3.1. Normal Curve Distributions for Strength Differences between Males and Females**




NOTE: The dashed lines represent the average for each group. Normal distributions were constructed based on data provided by Courtright et al., 2013.

### *Differences between High Performing Males and Females*

Differences between the average male and the average female are less relevant to organizations that select candidates well above the average. Therefore, a comparison of the differences between men and women at the 95th or 99th percentiles may be more informative. A study of a nationally representative population of boys and girls found that at the 95th percentiles of each gender, the estimated aerobic capacity (maximal oxygen consumption - $VO_2max$[25]) of

[25] $VO_2max$ is a measure that provides an estimate of the maximum amount of oxygen that your body can use during physical activity.

18-year old boys was approximately 10 percent greater than 18-year old girls (Eisenmann et al., 2011). Similar gaps of about 10 percent also have been found in studies comparing the top male and female athletes with respect to endurance running events (Cheuvront et al., 2005). That is, top performing men achieve finish times approximately 10 percent faster than women across events ranging in distance from 1500 meters to 42,000 meters. Performance differences are slightly less for sprint running with males achieving times approximately 7 percent faster. The gender difference gap between top performing men and women in swimming is also relatively smaller. For example, the current 1500-meter world record for men is about 7 percent faster than it is for women. Similar gaps of 7 percent have been found in favor of men in an analysis of open-water swimmers covering a distance of 10 kilometers (Vogt, Rüst, et al., 2013). In an analysis of Hawaii Ironman performance from 1981 to 2007, found the smallest gender differences in times favoring men on the swim (9.8%) followed by cycling (12.7%) and running (13.3%) (Lepers, 2008).

Despite clear evidence of differences between average men and women, and between elite male and female athletes, a more thorough and direct evaluation of women for SOF specialties is needed. Without an extensive analysis of the job requirements, any projections on the qualification rates of potential female candidates would be incomplete. Studies comparing average differences between men and women may not generalize well to successful SOF candidates. Similarly, studies of elite athletes also have limited generalizability. For example, elite athletes are unlike special operators in that they train to meet one very specific goal. Elite marathoners, for example, emphasize keeping a lean body and building aerobic capacity. In contrast, SOF missions may require a combination of several abilities (e.g., aerobic capacity, upper body strength, agility). Nonetheless, to the extent that SOF specialties require high levels of strength, power, and aerobic endurance, the proportion of eligible female candidates would be expected to be considerably lower compared to the eligible population of male candidates.

### *Factors Influencing Performance*

Performance on physical ability tests, and more importantly on the job, is a function of many different factors including biological, psychological, sociocultural, nutritional, and environmental. The relative influence of these factors can explain, in part, why simply knowing individual values of "maximal oxygen uptake do not reveal the person's potential to perform well in events that demand aerobic power" (Åstrand et al., 2003, p.265). In other words, the observed gender differences on physical ability tests cannot be attributed fully to differences in physiology between the sexes. Training, for example, can result in substantial gains in aerobic capacity and muscular strength (discussed in more detail below). In the following sections, we explore the most common explanations for performance differences between men and women.

### Biological and Physiological Factors

Many observed gender differences on physical ability tests can be traced back to biological and physiological differences between men and women, and "sexually dimorphic maturation during puberty and adolescence." A recent review of studies on the topic highlights some of the more prevalent differences between men and women (see Table 3.1) (Epstein et al., 2013).

**Table 3.1 Comparison of Primary Physiological Differences between Men and Women**

| Physiological Factors | Compared to men, women: |
|---|---|
| Height and Weight | Are on average 13 cm shorter (McDowell et al., 2008) |
| Skeletal Muscle Mass | Have less muscle mass, 33% less in lower body and 40% less in upper body (Janssen et al., 2000) |
| Cardiopulmonary Capacity | Have approximately 25-35% less maximal oxygen uptake (Åstrand et al., 2003) |
| Body Composition | Have a greater percentage of body fat per body weight (22 to 26% vs. 12 to 16%) (Malina and Geithner, 2011) |
| Susceptibility to Iron Deficiency | Are more likely to experience anemia |
| Muscle Strength | Have less muscular strength and power, particularly in the upper body (Beckett and Hodgson, 1987) |
| Anaerobic Capacity | Have less absolute anaerobic power; difference attributed to differences in lean body mass (Stefani, 2006) |
| Muscular Endurance | Have greater resistance to muscular fatigue relative to body mass and faster recovery following exercise (Billaut and Bishop, 2009; Epstein et al., 2013) |
| Bone and Joints | Have shorter limbs relative to body length and wider pelvis, which provides a lower center of gravity but may also increase risk of specific overuse injuries (Ivković, 2007) |
| | Are more likely to experience training-related stress fractures (Friedl, 2005) |

The preponderance of this research suggests that males have an advantage physiologically in terms of aerobic capacity, anaerobic power, and muscular strength. Men are also taller and have overall more body mass. The average 20 to 29 year old male weighs an average of 188 pounds and is 5'8" inches tall (McDowell et al., 2008). In contrast, women in the same age group, on average, weigh 156 pounds and are 5'4" tall. Recent studies, however, have suggested that women may have a greater resistance to muscular fatigue compared to men (West et al., 1995; Semmler, Kutzscher, and Enoka, 1999; Hunter and Enoka, 2001; and Clark et al., 2003). Specific attention should be given to interpreting these findings since men and women are often not matched for strength. That is, the amount of weight lifted in these studies is often determined as a percentage of each individual's maximal ability (i.e., relative load), resulting in heavier loads being lifted by men in these studies. In a military environment where heavy loads must be carried (e.g., weight of equipment) (Nindl et al., 2013), men's greater overall strength would likely outweigh any advantage women have in resistance to muscular fatigue. However, the extent to which observed physical ability differences translate into better job performance is a more important question to address than average differences on physical abilities. For some

abilities, it is possible that there may be large differences between men and women but that differences in job performance are relatively smaller. Such a relationship might occur when individuals' abilities exceed job demands. Generally, such excesses of a relevant physical ability would be valued in the context of special operations to have physical reserves for meeting unexpected and variable mission demands (e.g., increased enemy activity) and to minimize risk of injury as discussed below.

Other differences between males and females may contribute to an increased risk of musculoskeletal injuries for women. For example, "[c]ompared to men, women have increased pelvic width, forefoot pronation, heel valgus angulation, pes planus, external tibial torsion, and femoral anteversion" (Springer and Ross, 2011, pg. 4). Comparisons of male and female athletes suggest that anterior cruciate ligament (ACL) injuries are more common among women (Renstrom et al., 2008). Although research continues to evolve in search of a definitive set of risk factors to fully explain observed gender differences, it is important to recognize that prevention programs have demonstrated considerable success in reducing the risk of ACL injuries (Olsen, et al., 2005; Hewett et al., 2006; and Renstrom et al., 2008). Furthermore, the prevention of overtraining (e.g., running mileage) can reduce the risk of injury with little to no detriment to improvements in overall fitness (Bullock et al., 2010).

Load carriage also may present certain risks specific to women. In other cases, women who are smaller may have an increased risk of injury if the rate of pace and loads are not modified to accommodate a shorter stride length. Studies on military recruits have reported higher incidence of injuries among female recruits, particularly with stress fractures (Lappe, et al., 2001; Mattila et al., 2007). For example, a large study of Army recruits from 1997 to 2007 (Knapik, Montain, et al., 2012) found that stress fracture incidences occurred at a rate of 19.3 per 1000 recruits for men compared to 79.9 per 1000 recruits for women. To restate an earlier point, caution must be exercised when generalizing findings based on the general military population to women who meet the physical fitness standards required by SOF specialties. Taking into account research demonstrating that low physical fitness is an important risk factor in training (Beck et al., 2000; Knapik, Darakju, et al., 2006; Rauh, et al., 2006), the potential injury rate of women who have the strength, endurance, and other critical abilities to qualify as a SOF operator may be considerably lower than the injury rate of women from the General Purpose Force.

Support for this perspective is provided by studies that control for individual levels of physical fitness. For example, in a study of 861 Army basic trainees, it was initially found that women experienced twice as many injuries as men. However, when controlling for fitness levels, women were no longer at an increased risk of developing an injury compared to men (Bell at al., 2000). The primary conclusion from this study was that cardiovascular endurance rather than gender was the primary risk factor for developing an injury. Other studies also support an association between fitness and injuries (Cline, Jansen, and Melby, 1998; Friedl, Evans, and Moran, 2008). Therefore, to minimize the risk of injuries, it is critical to establish and ensure

minimum fitness levels are met prior to starting high intensity physical assessment and selection programs.

Other physiological differences between men and women suggest that during military training, women may be more likely to experience iron deficiency and urinary incontinence (Orr et al., 2011; Epstein, et al., 2013). However, effective prevention and treatment strategies are available for both of these conditions, suggesting education and monitoring may be helpful in mitigating these challenges. Furthermore, the extent to which these conditions would affect female SOF operators is unknown.

### Social, Cultural, and Psychological Factors

In addition to physiological differences between men and women, performance may also be influenced by social and cultural factors (Cheuvront et al., 2005). Historically, participation rates of females in sports have been lower than males, due to a wide range of influences including structural barriers and fewer opportunities compared to men (Videon, 2002). However, shifts in laws (e.g., Title IX), social norms, and attitudes towards women have resulted in increased participation rates by women in a wide range of sports (Thornton, 2011). For example, the percentage of female participants competing in the 1981 Hawaii Ironman was 6 percent compared to 27 percent in 2007 (Lepers, 2008).[26] Coinciding with increased participation rates are substantially improved performance times in different athletic competitions. Although the performances (e.g., times) of both men and women have improved over the past several decades, the percentage of improvement for women has generally exceeded the improvement rate of men (Seiler, De Koning, and Foster et al., 2007). As a result, the gender gap has narrowed considerably.

Whether or not gender differences will ever be eliminated has been the source of considerable debate and speculation (Sparling et al., 1998; Whipp, 1992; Coast, Blevins, and Wilson, 2004; Cheuvront et al., 2005; and Lepers, 2008). Although there are implications in resolving this question, the more critical questions for purposes of our research are: 1) whether observed gender gaps would have a negative impact on mission performance, and; 2) what steps can be taken to help provide equal opportunities to males and females for meeting SOF selection standards. Thus, from the perspective of recruitment of women into SOF specialties (if these are opened to women), the main issue is not about reducing the gap between men and women, but rather about increasing individual abilities through education and training to meet standards for safe and effective job and mission performance.

Another factor that may influence the magnitude of observed differences between men and women on physical ability tests is self-selection. It is widely accepted that females participating in athletics can be stigmatized, especially when they violate social norms and expectations

[26]The Hawaii Ironman triathlon is widely considered the world's premier athletic endurance contest. Held annually since 1978, it is the culmination of a series of triathlon qualification races that take place around the world. The Hawaii Ironman competition consists of a 2.4-mile ocean swim, 112 mile bike race and a 26.2-mile marathon.

(Blinde and Taub, 1992). For example, aggressive female athletes have been labeled as "lesbians." Such stigmatization may discourage girls and women from pursuing masculine activities (e.g., physically demanding jobs) and sports. To the extent that physically fit women choose not to pursue demanding occupations could result in greater differences between average male and female scores on physical ability tests. On the other hand, smaller differences may be found in studies where only physically fit women applied for the position. Such self-selection processes may help to explain some of the large credibility intervals (i.e., variability) observed in meta-analytic studies of physical ability.

### Training and Experience Factors

Prior experience (e.g., practice) and access to resources can also have an impact on observed performance differences. A meta-analysis comparing motor performance in boys and girls concluded that many of the gender differences observed prior to puberty are likely influenced by environmental conditions such as higher expectations and more practice opportunities for boys (Thomas and French, 1985). However, some differences between boys and girls, such as throwing ability, appear early in life, suggesting underlying biological differences between the sexes (Nelson et al., 1986). Prior experience may also be an important factor to consider when examining specific types of tests, as women may have had less opportunity to practice and develop the specific techniques to perform well on some tests.

Acknowledging that the magnitude of differences between men and women may be partially influenced by prior experiences and exposure to different opportunities, it is equally important to remember that physical abilities can be developed over time with proper training and coaching. In the context of military training for very demanding jobs, training has been shown to substantially increase the capabilities of women. In a study conducted by the Army Research Institute of Environmental Medicine, women who participated in a 24-week training program focused on box lifting and load carriage lifting an additional 30 to 47% heavier boxes by the end of training (Harman et al., 1997). The women also improved the pace at which they could carry a 75-pound backpack over a 2-mile course from 3.4 to 4.4 miles per hour. Despite these positive findings, this specific training program also resulted in a very high incidence of injuries— 23 out of the 40 women (58%) who completed at least half of the training experienced one or more injuries. Improvements ranging between 16 to 19 percent in lifting capacity were found in a study of a 14-week training program of female soldiers (Knapik and Gerber, 1996). This training program also resulted in 4 percent faster times on a road march of 5 kilometers while carrying approximately 42 pounds. A more recent study of 56 recreationally active females compared the effectiveness of three types of training programs (aerobic endurance, strength, and combined endurance and strength) over 8 weeks on their ability to improve performance on tactical occupational tasks (e.g., road march, repetitive lift and carry) (Hendrickson et al., 2010). Although all three training programs resulted in improvements, the program emphasizing both

strength and aerobic endurance had the broadest impact, positively influencing performance in all outcome measures.

Studies such as these provided the basis for a meta-analysis of training effects to determine: 1) the extent to which different physical abilities can be improved, and; 2) whether such training interventions helped to reduce the differences between men and women (Courtright et al., 2013). This quantitative review included 21 studies, of which 85% were from analyses of military training programs (e.g., basic combat training). As expected, the results showed improvement on cardiovascular endurance and muscular strength for both men and women. Specifically, training resulted in moderate to large effects, ranging from $\delta$=.76 for cardiovascular endurance (men) to $\delta$=1.13 for muscular strength (women). This finding complements other research demonstrating that the relative gains from a heavy-resistance strength training program are roughly the same for men and women (Cureton et al., 1988).

Because physical ability improves for both sexes, training does not reduce observed gaps between men and women on physical ability tests. Despite the lack of convergence between test scores, training can help better prepare women to meet minimum standards on physical ability. Furthermore, the training programs reviewed in the Courtright et al. (2013) meta-analysis typically ranged from 6 to 16 weeks; additional training would be expected to lead to larger gains in muscular strength and endurance. Furthermore, tailoring the training program to the level of experience may help to achieve maximum strength gains (for example, see Rhea et al. 2003).

## Sex and Gender Differences in the Stress Response

SOF training and missions often involve exposure to stress-inducing environments. To better understand the implications of potentially integrating women into SOF and identify the necessary training modifications or considerations that might be called for, we reviewed the empirical literature on how men and women respond to stress. Research on sex and gender differences in the stress response cuts across several disciplines, including biological and social and behavioral sciences. In this section we discuss the influences on the way human central and autonomic nervous systems respond to stress, as well as the influence of biology, psychology, and environment. We end with a discussion of limitations.

We discuss both sex and gender differences in stress reactivity. While biological factors associated with sex (e.g., hormones such as estrogen and testosterone) certainly can have an impact on the stress response, gender influences all of the interactions individuals have with their environments. Therefore, gender plays an important role in whether the individual perceives his or her environment as stressful, and how he or she subsequently responds (Dickerson and Kemeny, 2004).

### *Biological Predictors of Sex Differences*

Available research is generally consistent with a model of stress regulation which posits two

biobehavioral systems, i.e., the classic "fight-or-flight" response which may be more characteristic of males and a "tend-and-befriend" response which may be more characteristic of females (Taylor, 2006). Unlike the traditional "fight-or-flight" response to stress where the individual's reaction is to either flee from/avoid the stressor or fight/confront it, "tending" behaviors are aimed at protecting the self and offspring, to promote safety and mitigate distress. "Befriending" behaviors are intended to establish and preserve social networks. The two systems appear to involve activation of different brain regions (Motzer and Hertig, 2004), different neuroendocrine systems (Klein and Corwin, 2002), and may give rise to different psychological outcomes for males and females (Kaplow et al, 2005). These systems (e.g., HPA axis, neuroendocrine, autonomic nervous system) are influenced by genetics (Jabbi, et al, 2007; Gillespie, et al. 2009; and White et al., 2012).

### Genetics/Epigenetics

Severe stress and trauma exposure (e.g., combat or sexual assault) can become biologically embedded through acquired "epigenetic modifications," potentially increasing vulnerability to mental health problems (Ptak and Petronis, 2010). Epigenetic modifications in gene expression are environmentally-induced modifications to the genome that impact gene expression but do not alter DNA sequence (Novik et al, 2002; Roth and Sweatt, 2011). These can be stable and long-lasting, but also potentially reversible (Bagot and Meaney, 2010; Perround, et al., 2013). A growing literature, based largely, but not entirely, on animal studies shows that early life stressors initiate a biological cascade leading to alterations of the stress response system which, in turn, leads to hypothalamic-pituitary-adrenal (HPA) axis dysregulation (described in more detail below). This dysregulation can result in altered stress reactivity to subsequent life stressors and can be inherited by the next generation (Francis et al., 1999; Champagne et al., 2003; Bet et al. 2009; McGowan et al., 2009; McEwen et al., 2012; and Tyrka et al., 2012). However, these changes can also be reversed with intervention (Perroud, 2013).

Recent research indicates that sex differences in epigenetic modifications at certain genes may influence the emergence of mental health problems such as posttraumatic stress disorder (PTSD), which is more common in females compared to males in the general population (Olff et al., 2007). A study found that epigenetic changes in the expression of pituitary adenylate cyclase-activating polypeptide (*PACAP*), a peptide involved in stress regulation, were associated with PTSD in female, but not male, inner-city trauma survivors (Ressler et al., 2011). The researchers proposed that estrogen-related influences may make females more susceptible to PTSD following trauma compared to males.

Epigenetic mechanisms that could explain sex differences in the stress response are only just beginning to be uncovered. For example, given that males are likely to be more vulnerable to the onset of drug and alcohol problems following stress and trauma compared to females (Fox et al., 2009; Ayer et al., 2011), it is possible that epigenetic mechanisms also contribute to the development of addiction in response to stressful events. To our knowledge, this question has not

yet been investigated.

### Hypothalamic-Pituitary-Adrenal (HPA) Axis

A key biological system involved in the stress response is the hypothalamic-pituitary-adrenal (HPA) axis. The HPA axis regulates the response and adaptation to changes in the environment, including stressors. When exposed to stress, the central nervous system is activated, and corticotropin releasing hormone (CRH), adrenal corticotrophic hormone (ACTH), and cortisol are released in the brain. The increased cortisol levels elicit the inhibition of the HPA axis, and once the stressor is gone, cortisol levels normally return to their baseline levels (Jacobson et al., 1991). HPA axis activity is usually assessed using repeated measurements of salivary cortisol during a normal day or before, during and after a laboratory-based stress paradigm, which could include a psychosocial, pharmacological, or physical stressor.

Variations in HPA axis activity have been observed in clinical and healthy populations (Chida and Hamer, 2008; Chida and Steptoe, 2009). Individuals with mental health problems such as depression, anxiety, aggression, substance use, and other emotional and behavioral problems often display maladaptive cortisol responses, such as cortisol levels that do not sufficiently increase in response to a stressor, or that do not recover after the removal of a stressor (Burke et al., 2005; Chida and Hamer, 2008). A blunted cortisol response indicates a maladaptive response to stress, which can contribute to mental health problems over time (Burke et al., 2005).

The nature and extent of sex differences in HPA axis activity have not been fully teased apart, but are influenced by many factors,[27] such as the type of stressor. Most studies examine psychosocial stressors, but some utilize physical or pharmacological stress tests. In response to psychosocial stress tasks such as public speaking in front of an audience, men typically exhibit a higher cortisol response compared to women (Kajantie and Phillips, 2006). However, the type of psychosocial stressor matters. In a laboratory study, Stroud and colleagues exposed men and women to stress tasks that emphasized either achievement (i.e., challenging mathematical tasks under time pressure with verbal audience feedback) or social networks (i.e., a social rejection task with a fake discussion where research confederates acted in a socially rejecting way toward the participant) (Stroud, Salovey, and Epel, 2002). In response to the achievement task, men showed cortisol increases but women did not. On the other hand, women showed a cortisol stress response to the social rejection task, while men did not.

The amount of social support available also influences sex differences. In another study, researchers systematically varied the amount of social support participants received during the psychosocial stress task (Kirschbaum, Klauer, et al.,1995). One group of men and women received no social support prior to a stressful mock job interview. A second group received support from a stranger, and a third group received support from a romantic partner. Men

[27] For a review, see Dedovic et al., 2009.

showed the highest cortisol stress responses in the no support and stranger support conditions, while women showed higher stress responses in the partner support condition. These studies and others (Powers et al., 2006) indicate that the specific characteristics of the stressor influence the HPA axis responses of men and women. They also suggest that, more than biological sex, gender may play a role in how we respond to stress. We discuss such influences below.

The research on physical and pharmacological stressors (e.g., infusion of corticotropin releasing hormone (CRH)) is more limited, but is inconsistent as well, with some studies revealing a higher stress response in women, and others finding no sex differences. In their review of the literature on sex differences in the HPA axis response to stress, concluded that the inconsistency in these findings could be because physical, pharmacological and psychosocial stressors affect the HPA axis at different levels (Dedovic et al., 2009). Men and women may respond similarly to stress stimuli at one level and differently at another.

Hormones also influence the HPA axis response to stress. Women in the luteal phase of their menstrual cycle (who have higher levels of estrogen on average relative to women in the follicular phase and to men) show similar cortisol levels in response to psychosocial stress compared to men in some studies. Conversely, women in the follicular phase and those on oral contraceptive pills generally demonstrate lower levels of cortisol in response to psychosocial stress compared to men (Kirschbaum, Kudielka, et al., 1999; Dedovic et al., 2009). However, research shows that these effects are inconsistent. For instance, the type of population studied (e.g., younger vs. older) and the type of stress task can change the direction of the sex differences (Dedovic et al., 2009). Some researchers have hypothesized that sex differences may have evolved in order to buffer the fetus from the detrimental effects of an influx of stress hormones such as cortisol (Kajantie and Phillips, 2006). While estrogen likely influences the stress response, androgens appear to have a weaker effect on the HPA axis (Dedovic et al., 2009). However, injection of testosterone, a male sex hormone, has been shown to elicit blunted responses to stress (Lund, Hinds, and Handa, 2006; Handa et al., 2008; and Zuloaga et al.,2008).

### Physiological Reactivity

The autonomic nervous system, which consists of the sympathetic and parasympathetic nervous systems, plays a key role in the fight or flight response. When confronted with a threat or stressor, the release of cortisol (see above) leads to an increase in blood pressure, blood sugar, and a suppression of the immune system. Cortisol elicits the preparation of muscles for a response, and the hormones adrenaline and noradrenaline prepare the body for action, including increased heart rate, constriction of blood vessels, and “tunnel vision.” The physiological response to stress is often measured with repeated assessments of heart rate, blood pressure, and skin conductance during a stressful laboratory task. Typically, stress elicits increases in all three measures.

Research studies on the physiological response to stress suggest that, like their HPA axis response, men generally show greater skin conductance and blood pressure reactivity to stress,

but there are few apparent sex differences in heart rate (Kajantie and Phillips, 2006; McLean and Anderson, 2009). Also similar to the findings described above, hormonal status influences physiological reactivity, with increased reactivity observed in women in the luteal phase of their menstrual cycle, and decreased reactivity during pregnancy and after menopause (Kajantie and Phillips, 2006).

### *Psychological Predictors of Sex Differences*

In this section we review the empirical literature on psychological predictors of sex differences in stress reactivity. We have chosen to focus on psychological factors with the strongest links gender differences, and which are most relevant to military populations who face stressors that are often traumatic, such as combat and sexual assault.

#### Trauma and Posttraumatic Stress Disorder (PTSD)

Trauma is an extreme form of stress that can lead to particularly adverse mental and physical health consequences. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), a "potentially traumatic event" (PTE) is defined as "exposure to actual or threatened death, serious injury, or sexual violation." Examples of PTEs include combat/war, physical abuse, sexual abuse, motor vehicle accidents, torture, and natural disasters. In the general population, men experience more PTEs overall compared to women, but women are more likely to experience sexual assault and domestic abuse, which are more likely than other PTEs to result in mental health problems such as PTSD (Kessler et al., 1995; Tolin and Foa, 2006). However, women's increased exposure to certain types of trauma does not fully explain why women are twice as likely to develop PTSD compared to men in the general population (Tolin and Foe 2006; Olff et al., 2007).

The PTE most commonly investigated in military populations is combat exposure, though few studies have examined gender differences in combat exposure. Research generally indicates that men have higher rates of combat exposure overall compared to women (Mental Health Advisory Team IV [MHAT-IV], 2006; Rona, Fear, et al., 2007). However, Hoge and colleagues found that women were significantly more likely than men to report certain types of exposure, such as handling human remains (Hoge et al., 2007). Men were more likely than women to direct fire at the enemy or to be in a fire fight.

There is a strong link between combat exposure and PTSD for both men and women (Hotopf et al., 2006). Although there is little research on gender differences in combat-related mental health problems, a study on deployed male and female OIF service members from infantry and combat support units revealed very similar rates of PTSD among men and women (13% and 12%, respectively) (MHAT-IV, 2006). In two studies controlling for the amount of combat exposure, one found similar rates of PTSD among men and women in combat support units (Hoge et al., 2007), while another found higher rates among women (Tanielian and Jaycox, 2008). However, as mentioned previously, men and women may differ in the type of combat

stressors they face, and different types of stressors may lead to different mental health outcomes.

Female service members are significantly more likely than males to experience sexual assault and sexual harassment (Morral, Gore, et al., 2014; Murdoch et al., 2007). Sexual assault is the experience of unwanted sexual contact, which can range from unwanted touching to rape. Sexual harassment can include sexual involvement that is coerced, for example to avoid a negative performance evaluation, as well as sexual behaviors leading to a hostile work environment. These types of stressors are more common in male-dominated workplaces with large power differentials (Ilies et al., 2003), such as the military. In one recent study, thirty one percent of military women reported experiencing unwanted sexual attention in the past year and 52% reported other unwanted sexual experiences such as repeatedly being told offensive sexual jokes (Lipari et al., 2008). In a sample of Gulf War veterans, sexual assault was a stronger predictor of PTSD than combat exposure (Kang et al., 2005). Furthermore, sexual assault during military service poses greater risk for mental health problems like PTSD compared to sexual assault experienced before or after military service (Himmelfarb, Yaeger, and Mintz, 2006). Some researchers have suggested this could be due to aspects of the military environment and culture, such as feeling betrayed by fellow service members or fears that reporting the assault will have negative consequences (Street, Vogt, and Dutra, 2009).

### Other Stressors

Female service members may also experience gender harassment, which are behaviors that occur because of the victim's biological sex, are hostile or degrading, and are not sexually-based (Street, Vogt, and Dutra et al., 2009). Gender harassment can include offensive remarks about a gender or treatment of one gender as though they must work harder to prove themselves. Women are more likely to be exposed to gender harassment than men (Morral, Gore, et al., 2014; Vogt, Pless, et al., 2005). In a recent study, the majority (54%) of female service members report experiencing gender harassment in the past year (Lipari et al., 2008). Research suggests that gender harassment can have more detrimental mental health effects than sexual harassment (Rosen and Martin, 1998), which may be a result of gender harassment being chronic and difficult to combat. Like sexual assault and sexual harassment, gender harassment has the potential to threaten safety and mission effectiveness, which depend upon unit cohesion. There is also evidence that male service members use gender harassment to express their resistance to gender integration in the military (Miller, 1997).

Women are also more likely than men to experience a lack of social support during deployment (Rosen et al., 1999). As noted previously, the presence of social support can have a strong impact on both men and women's reactions to stress (Dedovic et al. 2009; Vogt, Pless, et al., 2005). Service members who feel supported by their peers and leadership also report higher levels of wellbeing and combat readiness compared to those who do not feel supported (Dedovic et al., 2009).

### Self-Esteem and Self-Efficacy

Self-esteem and self-efficacy refer to the way an individual's confidence in him or herself in general or in his or her ability to achieve a goal, respectively. Self-esteem and self-efficacy have been related to the cortisol stress response (Dedovic et al., 2009; Pruessner, Hellhammer, and Kirschbaum, 1999). Since one's confidence in his or her ability to cope with stress may dictate how one responds when confronted with a stressor, and since self-efficacy is an important predictor of avoidance (Emmelkamp and Felten, 1985), these constructs have been hypothesized to explain the relationship between gender and the stress response (Dedovic et al., 2009). Women generally report lower self-efficacy than men (Buchanan and Selmon, 2008) and research indicates that self-esteem is developed differently for men and women. Self-esteem in men is built by achieving goals that reinforce the male's autonomy, whereas self-esteem in women is often developed through social connectedness (Josephs, Markus and Tafarodi, 1992; Baumeister and Sommer, 1997). The divergence in males' and females' self-esteem often begins in childhood, when parents encourage greater autonomy in their sons while discouraging it in their daughters (McLean and Anderson, 2009). These different bases for self-esteem are likely to translate into different responses to stressors and threat: men may automatically "fight" or "flee," while women may "tend" or "befriend." Both self-esteem and self-efficacy can be altered throughout the lifespan as individuals learn from experience (Bandura, 1997). For instance, a man whose parents fostered his independence may find his self-esteem dampened in a work setting with extremely critical and negative supervisors and coworkers.

## *Conclusions*

In sum, there is evidence that men and women respond to stress differently from one another. Men appear to have greater HPA axis and physiological responses to stress compared to women in general, although this finding depends upon the specific stressor and context. Men and women are both vulnerable to potentially traumatic events including combat exposure, but women are more often victims of sexual assault, which is a particularly toxic form of trauma, posing relatively high risk for PTSD. Women service members are also more likely than men to experience other stressors such as sexual and gender harassment, and low social support. However, rates of PTSD among combat exposed men and women do not seem to differ greatly. Finally, women and men have varying types and levels of self-efficacy and self-esteem, which are socially influenced and can precipitate different responses to stress.

There are several limitations to this body of research, particularly when the findings may be applied to SOF men and women. First, the measure of stress response in these studies varies depending on the discipline and area of study. Some researchers use physiological or biological indicators of a stress response, such as cortisol secretion or heart rate. Others use self-report measures of thoughts, feelings, and mental health disorders. These studies may not be directly comparable.

Very little research on sex and gender differences in the stress response has been conducted

within military populations, so the majority of findings are based on healthy or clinical populations of civilians. SOF personnel, men or women, are likely to be more mentally and physically fit and more tolerant of risky and fear-inducing situations compared to the average civilian research subject. In addition, most studies focus on psychosocial stressors. For example, a classic stress paradigm monitors research subjects while they give a speech in front of an audience. Thus, the studies we reviewed may have limited generalizability to SOF and the most common forms of stressors they face.

Finally, it is important to note that sex and gender differences vary across the population and may be nonexistent in some groups; individual differences certainly exist, as factors such as personality, genetics, and previous experiences often have a much larger impact than sex and gender on responses to stress. In fact, some have suggested that differences between men and women's responses to stress may already be diminishing as more women enter and remain in the workforce full time and more men assume responsibilities in the home (Dedovic et al., 2009). The human stress response depends on a complex interaction of many factors, of which sex/gender is just one.

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# 4. Implications for Unit Cohesion of Potential Integration of Women into SOF Units

## Introduction

Analysts have long identified cohesion as a fundamental dimension of unit effectiveness in the military. [28] In order to assess the potential impact of integrating women into SOF units, we conducted a multidisciplinary review of small group cohesion. This assessment builds on RAND's two in-depth analyses of small group cohesion with regard to the implications of repealing "Don't Ask, Don't Tell" (MacCoun, 1993; MacCoun and Hix, 2010). In particular, this study updates previous analyses in light of recent military health research on the importance of social support for individual team members' resilience to mental distress as a result of high-stress deployments. The military health community's focus on strengthening unit cohesion as a factor for increasing individual unit members' mental resilience reflects the prevalence of cases of mental distress, such as post-traumatic stress disorder (PTSD), associated with the wars in Iraq and Afghanistan, and has contributed to an increased emphasis for unit leaders to foster unit cohesion.[29]

The study of cohesion is highly interdisciplinary. Sociologists, psychologists, political scientists, management scientists, medical practitioners, biologists, and even physicists have assessed the sources and implications of cohesion. Scholars have analyzed group performance across a wide array of groups, ranging from voluntary social groups, work groups, sports teams, military units (usually not in combat situations), and experimental groups formed solely in the laboratory. Although many findings from civilian studies are important for military units, cohesion in groups of soldiers is often distinct from cohesion in work groups in civilian contexts.

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[28] In the 1800s, the French military theorist, Ardant du Picq (1920) identified group cohesion as a key source of soldier's motivation; his analysis was published posthumously in 1880. A path breaking study by Shils and Janowitz (1948), based on interviews of German prisoners of war (POW) to investigate why they continued to fight as the war was ending, pointed to the importance of loyalty toward the primary combat unit as a combat performance motivator. Similarly, when asked in surveys, the second most common reason for why American soldiers continued fighting in World War II was loyalty to their combat unit (with the most frequent answer given by American soldiers during World War II was ending the war so they could return home, Stouffer et al. 1949). S.L.A. Marshall (1947) also highlighted the importance of cohesion in combat during World War II, although his results have been called into question (Spiller, 1988). During the Vietnam War, researchers identified the low levels of cohesion that resulted from high unit personnel turnover as an important explanation for low unit effectiveness. For example, Moskos (1975) and Savage and Gabriel (1976) examined the effects of an individual rotation policy on unit cohesion during America's military involvement in South Vietnam. They argued that this rotation policy did not allow interpersonal relationships to develop between soldiers as the military separately interchanged soldiers within combat units (see Faris, 1977 for a dissenting view). While specifics of all of the early work mentioned above have been questioned, there is a long-standing consensus that cohesion is a critical aspect of combat performance.

[29] DoDI 6490.05 "Maintenance of Psychological Health in Military Operations" directs unit leaders to develop strategies related to unit cohesion to mitigate the impact of combat and operational stress reactions.

Soldiers face significant risks that few civilian employees confront in their jobs, such as the strain of military service on the families of service members, psychological distress from combat, and risk of injury or death during military service. As a result, throughout this analysis, we pay particular attention to findings assessed through military samples. However, very few analyses include SOF tactical units in their samples. As a result, the direct relevance of the findings from these studies for SOF units must be caveated based on the differences between the characteristics of groups in other social contexts and tasks included in each analysis and SOF unit characteristics and tasks.

In this chapter, we examine the relevance of cohesion for SOF units, assess the implications of cohesion for SOF unit effectiveness, and consider whether and how integrating women into SOF units may affect cohesion in SOF units. We find that both task and social cohesion can increase SOF unit effectiveness. Integrating women into SOF units may reduce unit cohesion if female operators are not perceived as competent and are not accepted as full members of their teams.

## Cohesion Is Relevant for SOF Tactical Units

The U.S. Congress created the modern-day SOF with passage of the Cohen-Nunn amendment to the 1987 National Defense Authorization Act. This amendment recognized that the organization of SOF was different from other military components. The command structure of SOF is unique in that it relies on small, cohesive units that engage in highly specialized missions where soldiers employ limited force projection.

SOF tactical units such as Army Rangers and Special Forces groups, Navy SEAL teams, Marine Corps Special Operations teams and Air Force Special Tactics teams require tactical skills to maneuver undetected, engage in small unit combat, and forcibly subdue, capture and detain resisting enemy personnel. They also require elite physical capabilities to enable these small units to patrol long distances (>10km) with packs of food, water, and ammunition weighing 50 pounds or more over almost any terrain in any weather, day or night. The tactical mobility for these SOF occupations includes activities such as static line parachuting, high-altitude-high-opening (HAHO) free fall parachuting, helicopter fast roping or rappelling, helicopter ladder recovery, rock climbing, climbing over walls and fences, long range (>50nm) small boat maritime transits, surf passage, gear portages, and combat dives (>4nm), while carrying weapons, ammunition, body armor, batteries, radios, scopes, and other tactical gear. Team members must be prepared to carry any wounded member of the team or wounded detainee as well as documents or computers found on the target. Because SOF tactical units are small, every member of these teams, from the officer leading the patrol to the medical, weather, crew or communications personnel, must be prepared physically to maneuver and fight alongside the rest of the team or they risk becoming a liability, slowing maneuvers through contested terrain, and compromising the mission (JP 3-05 2011; ADRP 3-05, 2012; United States Air

Force, n.d.; United States Army, n.d.; United States Marine Corps, n.d.; United States Navy, n.d.; NWP 3-05, n.d.; NWP 3-05.2, 2013; McRaven, 1995).

Although cohesion has long been associated with greater performance in all military units, Mikael Salo's analysis (2011) of the implications of cohesion for military units identified four key group characteristics that were associated with an increased impact of cohesion on military unit performance:[30]

1. Groups are small and autonomous;[31]
2. Work and social interactions are intense and cooperative;[32]
3. Leadership has a direct influence on everyday life (Bartone and Kirkland, 1991; Mael and Alderks, 1993; Siebold and Lindsay, 1994 and 1999);
4. Training, learning and performance are focused on task-related skills and group performance (Salo, 2011).

Recent military health research identifies a fifth key group characteristic to add to the list:

5. Groups operate in a stressful environment, such as combat (Thoits, 1995; Griffith and Vaitkus, 1999; Ross and Jang, 2000; Ahronson and Cameron, 2007; Griffith, 2007; Iversen et al., 2008; Rona, Hooper et al., 2009; Griffith and West, 2010; Pietrzak, Morgan, and Southwick, 2010; Sundin et al., 2010; Du Preez, Wessely, and Fear, 2012; and Mitchell et al, 2012).

As described above, these five characteristics closely mirror SOF unit characteristics and the nature of SOF operations, highlighting the importance of unit cohesion for SOF units:

1. Units are small and function autonomously when deployed;
2. Units work cooperatively to accomplish interdependent outcomes;
3. Leadership is a key component of unit effectiveness;
4. Train and perform as a team;
5. Operate in austere environments and combat situations.

## Cohesion Exists at Multiple Levels

Guy Siebold and colleagues at the U.S. Army Research Institute for Behavioral and Social Sciences and the Walter Reed Army Institute of Research developed the 'Standard Model' of military group cohesion over the last two decades (Siebold, 1996, 2007, 2012; Siebold and Kelly,

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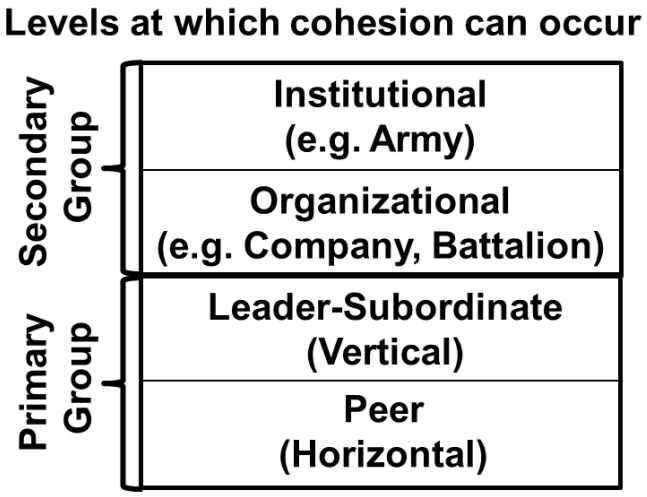
[30] Salo's analysis of over 500 cohesion-related studies represents an agenda-setting volume that lays out the 'standard model' of military unit cohesion. It reflects work the author undertook both at the U.S. Army Research Institute for the Behavioral and Social Sciences as well as his dissertation research.

[31] The footnotes for each of these four key characteristics identify additional supporting literature for each point. With regard to the increased importance of cohesion in small, autonomous groups, see Carron and Spink, 1995; Wheelan and Davidson, 2009.

[32] With regard to the heightened effects of cohesion on performance when work and social interactions are intense and cooperative, see Beal et al 2003; Carron and Chelladurai, 1981; Chen, Tang, and Wang, 2009; Gully et al., 1995; Lawler and Yoon, 1996; and Zaccaro and McCoy, 1988.

1988b; Siebold and Lindsay 1999). Their model identifies where cohesion can occur within different levels of military organizations (Figure 4.1).

**Figure 4.1. The 'Standard Model' of Cohesion**




SOURCE: RAND analysis, based on Siebold, 2007.

Peer cohesion (sometimes referred to as horizontal cohesion) encompasses the horizontal bonds that link members at the same level in a military hierarchy (e.g. squad or group members). Peer cohesion characterizes the strength of within-group bonding. Leader-subordinate cohesion (sometimes referred to as vertical cohesion) encompasses the vertical bonds between members at different levels in a military hierarchy (e.g. between squad/group members and squad/group leadership). Mady Segal and Chris Bourg (2002, p. 507) define vertical cohesion as "the extent to which unit members believe their leaders care about them." Studies suggest that higher levels of vertical cohesion increases subordinates' identification with, trust in, and attraction to their leaders, and increases leaders' confidence in his or her subordinates (Furukawa et al, 1987; Bartone and Kirkland, 1991). Salo notes that "in a small unit with strong vertical cohesion, the leader is thus able to direct and control the group members' behavior more effectively (Griffith, 1986), and to influence the norms created in subgroups that direct attitudes and behavior toward organizationally important goals" (Salo, 2011, p. 30) Taken together, peer and leader-subordinate cohesion form primary group cohesion.

Organizational cohesion encompasses the bonds that exist between unit personnel and their next higher organizations (e.g. company or battalion). These organizational units define the status of soldiers relative to other service members using a rank structure, occupational specialty, or mission assignment. Institutional cohesion encompasses the bonds that exist between personnel and their service component (e.g. the Army) and/or country. It is at the institutional level that a military defines a meaningful purpose and social identity for soldiers. For example,

each branch in the U.S. military creates a service-wide identity with recruitment advertisements (e.g. "Army Strong), professional customs (e.g. commissioning ceremonies), and symbols (e.g. uniforms and flags). Taken together, organizational and institutional cohesion form secondary group cohesion. The secondary group consists of the hierarchical levels that direct the tasks and purposes of the primary group. It includes relatively few interpersonal bonds with the primary group (Salo, 2011, p. 35). However, by setting the institutional rules that govern behavior in the unit, actions taken at the service or company level can affect the behavior of unit members, and thus unit cohesion.

In this review of small group cohesion, we focus on primary group cohesion. Primary group cohesion more directly affects unit performance and encompasses the interpersonal relationships underpinning what is generally viewed as unit cohesion. As a result, we expect that the potential integration of women into SOF units should have a larger impact on primary rather than secondary group cohesion.

## Cohesion Has Multiple Dimensions

Early analyses tended to view cohesion as unidimensional, and reflective primarily of members' mutually-reinforcing positive behaviors and attitudes toward group membership.[33] Over time, scholars identified alternative sources of group cohesion. As Albert Carron and his colleagues argued, not all groups are a voluntary formation of individuals based on their mutual attraction. In the case of sports teams or military units, groups are formed because of the need to perform specific tasks and group membership is based on members' specific skills (Carron and Chelladurai, 1981Carron, 1982; Carron and Brawley, 2000). As a result, group members may work together and maintain high group cohesion, even though the members may not like each other, because they need each other to attain their goals.

Recognition that group cohesiveness may reflect not only interpersonal attractiveness, but also a shared commitment to a common goal, has led to the recognition that there are different types of cohesion.[34] Recent research has focused on the instrumental and affective dimensions of cohesion. Within studies of cohesion in military units, these two dimensions are generally

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[33] Why and to what extent group members were attracted to group membership was an important focus of early social psychology studies, such as Moreno, 1934; Moreno and Jennings, 1945; Bales, 1950. Following World War II, scholars built on this early literature to emphasize the benefits strong group ties had on military units' performance (Shils and Janowitz, 1948; Pipping, 1947). Festinger (1950) developed the conceptual framework that guided cohesion studies until the 1980s. Examples of research in this vein were Back, 1951; Schachter, 1951; Lott and Lott, 1965; and Etzioni, 1975.

[34] Carron (1982) represents a shift in cohesion studies from a one-dimensional approach to a two-dimensional one. However, earlier studies had criticized the narrow focus on interpersonal affection and had highlighted the need for a multidimensional treatment of cohesion (e.g. Gross and Martin, 1952; Davis, 1969; Mikalachki, 1969; Shaw, 1976; Steiner, 1972).

referred to as 'task cohesion' and 'social cohesion', although these terms often vary across disciplines.[35] In keeping with common usage, we use the terminology social and task cohesion.

## Task Cohesion

### *Definition*

We define task cohesion as the extent to which unit members share a common goal and coordinate their efforts to achieve it. This definition is based on Robert MacCoun's cohesion analysis for the 1993 RAND report assessing the repeal of the "Don't Ask, Don't Tell" policy, and has become standard usage across unit cohesion studies (MacCoun, 1993).[36] Task cohesion is an inherently group-based construct as it requires identification and sharing of group goals and coordinated efforts.

### *Implications for Unit Performance*

Early cohesion analyses found mixed results for cohesion, ranging from strongly positive correlations between cohesion and task performance,[37] to no relationship,[38] to in a few cases a negative correlation between cohesion and task performance.[39] In particular, Ralph Stogdill's influential 1972 analysis assessed the relationship between cohesion and performance in 25 studies (Stogdill, 1972). Across the studies, Stogdill argued that one-third of the analyses found a

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[35] MacCoun (1993) presents a mapping of cognate terms in footnote 5, page 290: "Mullen and Copper (1993) use the terms 'interpersonal attraction' and 'commitment to task.' Siebold and Kelly (1988a) use the terms 'affective bonding' and 'instrumental bonding.' Tziner (1982) uses the terms 'socio-emotional cohesiveness' and 'task-oriented (instrumental) cohesiveness.' Yoest and Tremble (1985) use the terms 'interpersonal closeness' and 'quality of work relationships.' Yukelson, Weinberg, and Jackson (1984) distinguish 'attraction to the group' from two aspects of task cohesion: 'quality of teamwork' and 'unity of purpose.' Zaccaro and Lowe (1988) use the terms 'interpersonal cohesiveness' and 'task- based cohesiveness.'" Guy Siebold, a prominent scholar of military unit cohesion, maintains the two-dimensional characterization of group cohesion, but rejects the moniker 'task cohesion', arguing for a conceptualization of the two dimensions as 'trust' and 'teamwork' (Siebold, 2011).

[36] For example, Belkin et al. (2013) define task cohesion as "whether or not group members pursue a common mission." Salo (2011, p. 24) states that "task cohesion grows from the attainment of goals that are important to the group members (Tziner, 1982; Zaccaro and McCoy, 1988). Group members who share a common goal and coordinate their efforts to achieve it typically experience strong task cohesion (Farley and Veitch, 2003)." MacCoun's definition is also consistent with earlier uses, such as Carron, Widmeyer and Brawley's (1985:p. 248) definition of task cohesion as "a general orientation toward achieving the group's goals and objectives," and Tziner (1982, p. 230)'s argument that task-oriented cohesiveness which makes groups attractive "because of the performance and attainment of goals associated with membership."

[37] Early studies that found a positive correlation between cohesion and task performance are Berkowitz, 1954; Cohen, Whitmyre, and Funk, 1960; Goodacre, 1951; Lott and Lott, 1965; Mikalachki, 1969; Schachter et al., 1951; and Thomas, 1957.

[38] Early studies that found no correlation between cohesion and task performance are Bakeman and Helmreich, 1975; Gross, Martin and Darley, 1953; and Staw, 1975.

[39] One early study that found a negative correlation between cohesion and task performance is Deep, Bass, and Baughn, 1967. However, as Mudrack (1989) argues, many of the 'negative' studies included in Stogdill (1972) do not explicitly address cohesion.

positive relationship between cohesion and productivity, one-third found a negative relationship, and one-third found no relationship between cohesion and productivity. However, rather than demonstrating the inconsistent effects of cohesion, Stogdill's study highlighted the lack of definitional consistency and metrics that existed in cohesion studies. As Peter Mudrack (1989, p. 775) found when he tried to replicate Stogdill's analysis, "*no two studies referenced by Stogdill operationalized group cohesiveness in exactly the same way.* In fact, 15 of the 23 studies which [Mudrack] was able to locate did not specifically attempt to measure cohesiveness at all, and ten of these 15 studies did not appear to be concerned with anything remotely resembling cohesiveness."[40]

As analysts refined their definition of and metrics for task cohesion, studies have more consistently associated task cohesion with improvements in outcomes such as:

- Task performance,
- Communication,[41]
- Discipline,[42]
- Motivation,[43]
- Training effectiveness,[44]
- Stress buffering (Shils and Janowitz, 1948; Siebold and Kelly, 1987; Yagil,1995; Griffith and Vaitkus, 1999; and Griffith, 2002), and
- Job satisfaction (Dobbins and Zaccaro, 1986; Griffith, 1988; Oliver et al, 1999; and Ahronson and Cameron, 2007).

The most widely studied relationship in the military cohesion literature has been the effect of cohesion on task performance.[45] Studies have used a wide array of methods and data to assess this relationship and a series of meta-analyses have been undertaken to identify systematic

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[40] Italics in original.

[41]Studies have found a reciprocal relationship between communication and cohesion. While studies have found that greater cohesion has been associated with more effective communication (Cartwright, 1968; Festinger, Schachter, and Back, 1950; Grice and Katz, 2005; and Zacarro, Gualtieri and Minionis, 1995), greater communication is also associated with increasing cohesion (Festinger, 1950; Mesmer-Magnus and DeChurch, 2009). Although it is difficult to disentangle directionality empirically, conceptually, the interdependence of cohesion and communication is expected.

[42] Units with greater cohesion tend to have fewer disciplinary issues; see Manning and Ingraham, 1983; Oliver et al., 1999; and Zacarro, 1991. Results are similar in sports studies (Carron, Widmeyer and Brawley, 1988; Fraser and Spink, 2002; and Spink, 1990).

[43] The argument that cohesion is a strong motivator for combat motivation has a long history. It was referenced as a key component of successful units as early as the Greek phalanges and the Roman legions (Gal, 2012), and historically has played a key doctrinal in military organizations (Wessely, 2006). Shils and Janowitz (1948) highlighted the motivational aspect of cohesion in their seminal article. Whether the relationship between combat motivation and cohesion stems from task or social cohesion is difficult to disentangle. Examples provided in Gal, 2012; King, 2013; and Wong et al., 2003 contain elements of both task and social cohesion. Similarly to the relationship between cohesion and communication, the relationship between motivation and cohesion appears to be interdependent (Yagil, 1995).

[44]Siebold and Lindsay, 1991. Reversing directionality, King, 2006 highlights the importance of training effectiveness for unit cohesion.

[45] This has been referred to as performance and effectiveness.

findings across seemingly disparate studies. Meta-analyses derive their explanatory power from combining information from independent studies that address similar questions to produce more reliable estimates of the underlying relationships than the individual studies could with their more limited information.

Meta-analyses only produce more reliable information if the individual studies included ask similar questions, include similar concepts, and have similar units of analysis. As Mudrack's critique of Stogdill's meta-analysis highlighted, these conditions have been difficult to create in meta-analyses of cohesion effects. As a consequence, the results of these meta-analyses must be interpreted with a great deal of caution. This is particularly the case with earlier meta-analyses that were based on underlying studies with a great deal of variation in how cohesion was defined and measured.[46] That said, across meta-analyses published since the 1980s, there has been a consistent correlation between task cohesion and increased task performance. The magnitude of the relationship has varied depending on the types of groups included in the analyses, whether group or individual performance was measured, and whether behavioral performance or outcome performance was examined.

The magnitude of the cohesion-performance relationship tends to be weaker under the following circumstances:

- In experimental analyses in which groups were formed solely for the purpose of analysis,
- When individual performance was analyzed rather than group performance,
- When outcome performance was analyzed rather than behavioral performance.

Brian Mullen and Carolyn Copper published the most influential meta-analysis linking task cohesion and task performance in 1994. Their analysis examined 49 articles and 66 cohesion-performance correlations that explicitly addressed the multidimensional nature of task and social cohesion.[47] Mullen and Copper found a small but significant correlation between task cohesion and task performance.[48] Their analysis played an important unifying and agenda-setting role in the study of cohesion by highlighting both the linkages between task cohesion and task performance, as well as demonstrating that there are important moderating effects on the relationship between task cohesion and performance. Their work set the stage for more careful and rigorous sampling and measurement approaches in subsequent analyses. Mullen and

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[46] Pigott (2012) discusses recent methodological advances in meta-analyses. More recent cohesion meta-analyses have benefited from both conceptual and statistical improvements.

[47] Evans and Dion (1991) found a similar link, albeit substantively stronger (potentially due to a bias in their identification of relevant relationships to test), between cohesion and task performance based on a sample of sixteen studies. Unlike Mullen and Copper (1994), however, Evans and Dion did not distinguish between task and social cohesion.

[48] Mullen and Copper's results must be interpreted with caution as the analysis faced serious methodological challenges. In particular, their analyses violated the assumptions that concepts are measured consistently across similar units of analysis. Neither of these assumptions holds for Mullen and Copper's analysis. Beal et al (2003, p. 991) extensively critique the consistency of Mullen and Copper's results on the basis of issues related to level of analysis, stochastically dependent effects, and the use of regression weights for determining the relative contributions of components of cohesion.

Copper's sample reflected the range of extant cohesion studies, and included analyses that looked at experimental and real groups, individual and group performance, and outcome and behavioral indicators.

Stanley Gully and colleagues expanded Mullen and Copper's analysis by arguing that (1) cohesion should have a larger impact on group rather than individual performance, and (2) cohesion should matter more for group performance to the extent that the group's tasks were interdependent (Gully et al., 1995). Based on a meta-analysis of 46 studies, they found that (1) cohesion had a larger impact on group performance than individual performance, and (2) for groups that perform interdependent tasks, increased cohesion was associated with greater improvements in task performance than for groups that performed inherently individual tasks (e.g. golf or production-line manufacturing). Although Gully et al.'s analysis only included 5 military studies, their differential finding is highly relevant for SOF units given SOF's intensely interdependent task profiles.

Laurel Oliver and colleagues at the U.S. Army Research Institute conducted a meta-analysis on the relationship between group cohesion and task performance in military samples, examining 39 studies found in academic venues as well as government reports (Oliver et al., 1999). Due to the difficulties in assessing the task performance of deployed units, the team focused on metrics such as combat readiness. They found a substantively strong and statistically significant relationship between group cohesion and task performance.[49] In keeping with Gully et al, they also found that the impact of cohesion was much stronger for group rather than individual performance.[50] As Oliver et al (1999, p. 77) note, their findings for group performance closely mirror Gully et al's findings for groups with high task interdependence, perhaps reflecting the highly interdependent nature of many military tasks.

Daniel Beal and colleagues further refined analysis of the relationship between task cohesion and task performance by highlighting that where analysts look for performance improvements affects their ability to link increases in cohesion with increases in performance. In particular, Beal et al argued that group cohesion affects group performance, but that group outcomes may reflect many other factors that are unrelated to the performance of the group. To link more explicitly group cohesion with group performance, Beal et al limited their meta-analysis to studies that assessed the impact of group cohesion on performance metrics rather than outcome metrics, and found a strong relationship between group task cohesion and group performance.

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[49] Oliver et al.'s (1999) military sample was almost four times the size of the military component included in Mullen and Copper (1991). Whereas Mullen and Copper found a 0.23 correlation between task cohesion and task performance in their military sample, Oliver et al found a 0.40 correlation between group cohesion and group task performance.

[50] Oliver et al (1999) found a 0.20 correlation between group cohesion and individual task performance.

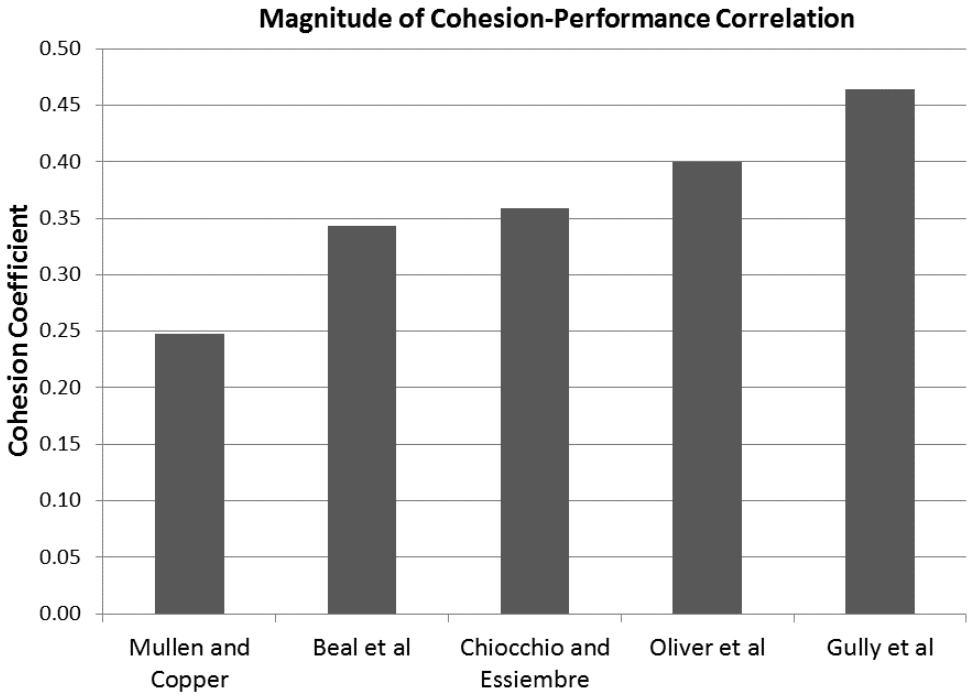
François Chioccio and Hélène Essiembre (2009) find similar results when examining the behavioral performance of project teams.[51]

Figure 4.2 compares the strength of the correlation between task cohesion and task performance across these five meta-analyses. Mullen and Copper's analysis shows the smallest magnitude correlation between task cohesion and task performance. Their analysis includes the broadest scope, including real and artificial groups, groups that perform individually oriented tasks as well as interdependent tasks, and military and civilian groups.[52] Of the five meta-analyses, Mullen and Copper's analysis represents a broad sample of groups and environments that is less narrowly focused on the tasks and conditions pertaining to SOF units than the other four analyses. We use Mullen and Copper's results as our baseline comparison in Figure 4.2.

[51] Project teams are defined as "groups that perform a defined, specialized task within a definite time period, and whose members are generally cross-functional and disband after project termination" (Chioccio and Essiembre, 2009, pp. 391-392).

[52] Mullen and Copper's analysis was self-consciously broad to respond to encompass a diversity of environments in which to examine the effect of cohesion on group performance. Although we focus on their overarching general effect here, Mullen and Copper's analysis also provided a more nuanced analysis of the differential effects of group type that set the stage for future analyses.

**Figure 4.2. Magnitude of Cohesion-Performance Coefficient Depends on Study Characteristics**




| **Study Characteristics:** | | | | | |
|---|---|---|---|---|---|
| Was analysis limited to real groups? | No | No | Yes | Yes | No |
| Was analysis limited to group performance? | No | Yes | Yes | Yes | Yes |
| Was analysis limited to performance rather than outcome metrics? | No | Yes | Yes | No | No |
| Was analysis limited to high task interdependence groups? | No | No | No | No | Yes |
| Was analysis limited to military groups? | No | No | No | Yes | No |

SOURCE: Mullen and Copper, 1994; Beal et al., 2003; Chiocchio and Essiembre, 2009; Oliver et al., 1999); Gully et al., 1995; and RAND analysis.
NOTE: Each study reported multiple analyses. The ones reported in this table match the scope conditions included in the table and represent main arguments made by each of the studies.

Beal et al's and Chiocchio and Essiembre's results highlight the relationship between task cohesion and group rather than individual performance. When limiting their analyses to group effects and performance rather than outcome metrics, Beal et al's and Chiocchio and Essiembre's results suggest a relationship between task cohesion and task performance that is forty percent larger than Mullen and Copper's results. Oliver et al's analysis adopts similar scope conditions to those in Beal et al and Chiocchio and Essiembre, but further limits their sample to only military groups. Examining only a military sample, Oliver et al's results suggest a relationship between

task cohesion and task performance that is sixty percent larger than Mullen and Copper's results. Finally, Gully et al limit their analysis to groups that engage in highly interdependent tasks. For these groups, the relationship between task cohesion and task performance is almost twice as large as the relationship reported in Mullen and Cooper.

Overall, the results reported in Figure 3.2 suggest that task cohesion

- is associated with higher task performance,
- has a greater impact on group rather than individual performance,
- improves group performance in military groups (potentially more than in civilian groups), and
- has a greater impact in groups that undertake highly interdependent tasks.

The relationship between task cohesion and task performance appears to be interdependent and mutually reinforcing. While greater task cohesion leads to greater task performance, greater task performance also appears to contribute to greater task cohesion. Which direction is stronger is a topic of heated debate, and has been difficult to measure with methodological validity.[53] In addition, strong leadership appears to refract the effects of task cohesion (Tziner and Vardi, 1982; Siebold and Kelly, 1988b; Siebold, 1996; and Siebold and Lindsay, 1999). In units with poor leadership, cohesion had a weak to non-existent effect on unit performance. In contrast, when leadership was strong, the relationship between cohesion and performance was also strong (Segal and Bourg, 2002).

## Social Cohesion

### *Definition*

Unlike task cohesion, for which there is a relatively consensual definition adopted by most analysts, defining social cohesion is more contentious. Within the multidisciplinary literature on social cohesion in the military, three key dimensions have been identified for inclusion in social cohesion--unit members' interpersonal attraction, shared bonds of trust, and provision of social support.

The most commonly used definition is a narrow one in which social cohesion is limited to interpersonal attraction. Broader multifaceted definitions of social cohesion run the risk of conceptual stretching in which similar concepts are included under an umbrella definition and can lead to confusion, ambiguity and disputes. Including concepts such as trust and social support within the definition of social cohesion may conflate the antecedents of cohesion with the outputs that result from cohesion. For our analysis of the potential impact of integrating women into SOF units on SOF unit effectiveness, two key factors countervail the use of a narrow definition of social cohesion. First, our literature review and the survey and focus group analyses

[53] For a discussion of this debate, see Casey-Campbell and Martens, 2009 and Salo, 2011. For a critique of attempts to disentangle this relationship, see Gully et al., 1995.

undertaken as part of this project (and discussed in the following chapters) strongly identify that SOF personnel define the affective dimension of cohesion more broadly than simply interpersonal attraction. SOF personnel include trust and the social support built within groups as part of their definitions of social cohesion. Second, interpersonal attraction, trust and social support have different implications for unit effectiveness. Adopting a narrow definition of social cohesion may fail to identify the multifaceted effects unit-level social relations have on unit effectiveness. Delineating how these three dimensions may affect unit cohesion is important as each one has different implications for unit effectiveness.

### Interpersonal Attraction

Most commonly, cohesion scholars have identified social cohesion as the strength of members' interpersonal attraction. Robert MacCoun and William Hix define social cohesion as "the extent to which group members like each other, prefer to spend their social time together, enjoy each other's company, and feel emotionally close to one another" (MacCoun and Hix, 2010, p. 139).[54] This definition highlights the positive emotional bonds that can exist among members in a socially cohesive unit (Kuwabara, 2011).

Social psychological experiments on the conditions that generate trust and cohesion in groups provide strong support for the linkage between interpersonal attraction and social cohesion (Lawler and Yoon, 1996; Lawler, Thye, and Yoon 2000; 2008). For example, experiments report that group members attribute their positive and negative emotions to others during collective tasks. When these members attribute positive feelings with others, research finds that it can generate trust and cohesion in groups.

### Social Support

Social support has been identified as a key component of social cohesion. In response to the large number of overseas deployments and combat operations the U.S. and its partners have been involved in, military health experts have focused on the social support provided by socially cohesive units as a means to mitigate the symptoms of mental distress such as post-traumatic stress disorder. Working from a different starting point than cohesion scholars, mental health analysts have developed a framework in which social support and unit social cohesion are intimately interconnected and in which social support in military units is generally seen as a component of social cohesion. As a bridge between the military health and cohesion literatures, James Griffith (2007) assessed the parallels between social support and social cohesion, and found that for military units, their antecedents, functions, and consequences were strongly similar both conceptually and empirically (Griffith, 2007).

Griffith's assessment of the overlap between social cohesion and the provision of social support is important, as many of the measures of social support at the unit level are identical to

[54] Similar definitions are used in Carron and Brawley, 2000; Friedkin, 2004; Zaccaro, 1991; and Zaccaro and Lowe, 1988.

measures of social cohesion at the unit level. To measure social support in units, scholars have used instruments similar or identical to those used in unit cohesion studies. For example, to assess unit-level social support, Griffith and Courtney West asked survey respondents to assess whether there were people in the unit they can turn to, and Pietrzak and colleagues asked respondents to assess the extent to which their unit was like a family to them (Griffith and West, 2010; Pietrzak, Morgan and Southwick, 2010). Highlighting the synonymous treatment of social support and social cohesion in military health studies, Mary Mitchell and colleagues identified their explanatory variable as social support in the form of unit cohesion (Mitchell et al., 2012, p. 487). As a comparison, Kevin Brailey examined the relationship between unit cohesion and PTSD without reference to social support, using the measures "members of my unit understand me" and "my unit is like a family to me" (Brailey et al, 2007).

### Trust

Some cohesion scholars have called into question the focus on members' interpersonal affection, and instead emphasize the importance of members' trust in one another.[55] Aaron Belkin and colleagues define social cohesion as "whether or not [group members] share bonds of trust" (Belkin et al., 2013, p. 598). Guy Siebold (2007) defines the affective dimension of cohesion as trust. With regard to unit social cohesion, shared bonds of trust capture the aggregation of individual members' belief that their fellow members will behave as expected.

Similarly to cohesion, trust is found within relationships between people (Coleman, 1988). It involves expectations for self and others in relationships that have some degree of risk or uncertainty in outcomes (Kollock, 1994; Yamagishi and Kiyonari, 2000). Trust can exist between specific people who interact with each other in groups, or it can be a generalized set of beliefs in categories of people or types of organizations (Uslaner, 2004; Smith, 1997). Trust provides a framework for unit members to observe, analyze, decide, and take action in the complex context of combat. David Lewis and Andrew Weigert (1985, p. 969) argue that trust is an efficient way for individuals to navigate "the monstrous complexity posed by contingent futures."

In a military unit setting, trust is built on both task-related competencies that emerge through training exercises and individuals' beliefs that in periods of stress, unit members will carry out their assigned tasks (King, 2006). As such, trust is a function of reciprocal interactions between soldiers working toward some common professional goals, but it may also extend beyond a professional context. Anthony King (2007, p. 641) makes this point by stating

[55] Identifying trust as a component of social cohesion does not undercut arguments that trust can arise contextually in high stress environments like conflict operations, as analyses of 'swift trust' attest (Kramer, 1999; Majchrzak, Jarvenpaa, and Hollingshead, 2007; Meyerson, Weick, and Kramer, 1996; Ben-Shalom, Lehrer, and Ben-Ari, 2005). Similarly, including trust as a component of social cohesion does not imply that social cohesion is synonymous with trust.

> In addition, these collaborations may extend well beyond professional practices into informal interactions, as military sociologists have shown; but, even here, mutual trust can be created and affirmed only through cycles of concrete cooperation, as soldiers do things together.

This parallels studies of trust in teams more broadly. Roger Mayer and colleagues identify three factors that contribute to perceived trustworthiness: benevolence, which represents a mutual desire to do well; ability, which represents competence with regard to skills needed in a specific domain; and integrity, which represents the trustor's perception that the trustee will adhere to an acceptable set of principles (Mayer, Davis, and Schoorman, 1995). For a SOF unit, this may mean that team members trust an individual member who shares a desire to help the team accomplish its mission (benevolence), is competent at his job (ability) and will adhere to the (often unwritten) principles of the SOF community (integrity). As a result, trust is related not only to social cohesion, but also to task cohesion. Trust can be seen as a bridge between task and social cohesion.

Including trust as a component of social cohesion is contentious. In a review of cohesion literature, Griffith (2012) finds that in addition to its inclusion in social cohesion, trust is sometimes included as an additional dimension of unit cohesion. MacCoun and Hix (2010) argue that trust is distinct from cohesion, highlighting the difference between trust and interpersonal attraction. Trust is most likely an antecedent to social and task cohesion. When including trust in a definition of social cohesion, scholars tend to focus on the results generated by cohesion rather than on delineating the differences between the causes and content of cohesion.

Some studies have adopted more inclusive definitions of social cohesion that include both interpersonal attraction and trust. Michael Hogg (1992) argues that "social cohesion builds upon interpersonal commitment, trust, loyalty, and attraction." Griffith (2007, p. 142) identifies an emotional component of cohesion "indicated by degree of trusting, caring, and liking or interpersonal support." Similarly, in a survey conducted for the DoD assessing service member attitudes toward the repeal of DADT, social cohesion was defined as "the emotional bonds of friendship, caring, and trust between unit members" (Westat, 2010).

### *Social Cohesion in RAND's Survey and Focus Groups*

Of particular importance for our analysis, excluding trust as a dimension of cohesion does not comport well with unit members' common language use of the terms social cohesion and trust. In an analysis of cohesion in British military units, Berkshire Consultancy (2009) found that interview respondents favored a cohesion definition that included both friendship and trust, and many respondents emphasized the importance of trust for social cohesion. Similarly, in our focus group sessions, summarized in Chapter 6, we found that many SOF personnel strongly believed that trust was a key component of unit cohesion.

We included separate questions in our survey (described in Chapter 5) to take into account SOF personnel's perceptions of their unit's social cohesiveness with regard to interpersonal

liking, social support and trust, as well as their unit's task cohesiveness. We asked SOF personnel to assess the following statements on a five point scale ranging from strongly disagree to strongly agree, or from very low to very high:

- "Most members of my unit socialize when off-duty", which is a commonly used question to identify levels of social cohesion in units,
- "The extent to which your unit members are like a family", which is a commonly used question to identify both levels of social cohesion and social support in units,
- "The level of trust among members in your unit", which is used to measure shared bonds of trust, and
- "The extent to which your unit members work together to accomplish the mission", which is a commonly used question to identify unit task cohesion.

Responses to "the extent to which your unit members are like a family" and "the level of trust among members in your unit" were highly correlated at 74 percent. These results reflect the intertwined belief among SOF operators that unit members are a family, and that they must trust each other. As one SEAL commented,

> The SEAL Teams operate on a basis of Trust and Brotherhood. All of our proficiency in the tactics we use rely on the trust we have in our brothers. Knowing I do the right thing to protect my brothers is reinforcing the trust I have that my brothers are, in turn, doing the right thing. We need to find equal ground that we all can relate to as operators. That ground is this Brotherhood. Brothers in arms. Without the upmost simplicity of a trusting Brotherhood, the ideals, tactics, and overall success of this dear unit will fall.

In keeping with the task-related competencies embedded in SOF personnel perceptions of trust, responses to "the level of trust among members in your unit" and "the extent to which your unit members work together to accomplish the mission" were correlated at 62%, also quite high, albeit lower than the relationship between "the level of trust among members in your unit" and "the extent to which your unit members are like a family."[56]

The degree to which trust affects task and social cohesion will vary across groups. One explanation for the stronger relationship between trust and social cohesion may reflect the role SOF standards play in ensuring a minimum level of competence in all operators. Building on Mayer and colleague's conceptualization of trust as reflecting perceptions of benevolence, ability and integrity, this may lead current operators to place greater emphasis on benevolence and integrity because standards ensure ability. In contrast, if operators perceive a lowering of standards, the importance of ability in trust formation may become much more important. The importance of SOF standards as an underpinning of trust is a common theme throughout the

[56] Similarly, "the extent to which your unit members are like a family" and "the extent to which your unit members work together to accomplish the mission" were correlated at 59%. The strong correlations between trust, task and social cohesion measures are in keeping with arguments such as Siebold (2011) that find the distinction between task and social cohesion outdated, and focus more on the interdependent process by which cohesion is fomented and sustained.

responses to the open-ended survey questions and focus groups. Repeatedly, respondents said that if standards were lowered, new unit members would not be trusted. The following quote is representative of many of the responses to the open-ended survey question, "What is your greatest concern about opening SOF specialties to women?"

> The physical standards will be lowered or there will be a double/separate standard set up for female operators… the men would not have confidence in her abilities and most importantly there would be a lack of trust in her ability to uphold an equal share in watching each other's back in combat.

The survey also provides some evidence that the aspect of social cohesion delineated solely by interpersonal attraction is distinct from that included in social support or shared bonds of trust. To isolate the interpersonal attraction component of social cohesion from other social cohesion measures, we asked respondents to assess on a five point scale ranging from strongly disagree to strongly agree with the statement "most members of my unit socialize when off-duty". The correlation between this question and "the extent to which your unit members are like a family," "the level of trust among members in your unit," and "the extent to which your unit members work together to accomplish the mission" were 46%, 41% and 34% respectively. The lower correlations between responses to the statement "most members of my unit socialize when off-duty" and the other three questions may reflect the relatively lower score given to this question vis-à-vis the others, as can be seen in Table 4.1.

**Table 4.1 Survey Responses to Cohesion and Trust Questions**

| Survey Question | Percent of "Strongly Agree" or "Very High" Response |
|---|---|
| Extent to which your unit members are like a family | 71% |
| Level of trust among members in your unit | 79% |
| Extent to which your unit members work together to accomplish the mission | 87% |
| Most members of my unit socialize when off-duty | 60% |

Taken together, the survey results suggest that SOF operators

- may perceive a similarity between trust and other components of social cohesion, such as social support,
- view trust, task cohesion and social cohesion as interrelated, and
- may not perceive socializing as a key component of a cohesive unit.

### *We Use a Broadly Inclusive Definition*

The preceding discussion highlights the multidimensional nature of social cohesion. Each of the three dimensions--interpersonal attraction, shared bonds of trust and social support--affects

how units perform and is difficult to disentangle. Disagreements over the definition of social cohesion lead to divergent findings on the importance of social cohesion to unit performance. These disagreements have important implications for assessing the role of interpersonal attraction, trust and social support within units. For example, scholars who define social cohesion as solely interpersonal attraction are more likely to find that social cohesion provides fewer benefits (if any) to unit effectiveness. In contrast, scholars who define social cohesion as including trust or social support are more likely to identify social cohesion as beneficial for unit performance.

In order to provide the greatest scope for our assessment of the implications of social cohesion for SOF unit effectiveness, we adopt a broadly encompassing approach that includes all three elements. We treat social cohesion as the extent to which unit members like one another, trust one another, and provide social support for one another.

An alternative approach for USSOCOM to consider instead of this broadly inclusive definition would be to define social cohesion solely in terms of interpersonal attraction, as "the extent to which group members like each other, prefer to spend their social time together, enjoy each other's company, and feel emotionally close to one another" (MacCoun and Hix, 2010, p. 139), and to include considerations of unit members' trust and social support as well as task social cohesion in their assessment of the potential integration of women into SOF units and consideration of implementation procedures. As research into interpersonal attraction, trust and social support continues, we expect researchers will continue to refine the definitions, metrics and hypothesized causal pathways underpinning each of these concepts.

### *Implications for Unit Performance*

Evidence that social cohesion affects unit performance directly is mixed. Mullen and Copper's (1994) meta-analysis found little support that social cohesion improved unit performance. Beal et al (2003) found that social cohesion was associated with greater performance efficiency, but that the effect was smaller than for task performance.[57] In contrast, Chiocchio and Essiembre (2009) found that the relationship between social cohesion and behavioral performance was greater than the relationship between task cohesion and behavioral performance.[58] However, the strength of Chioccio and Essiembre's (2009) finding with regard to behavioral performance is mitigated by the weaker relationship they found between social

[57] Beal et al (2003) found the magnitude of the correlation between task commitment and task efficiency was 0.343. The magnitude of the correlation between interpersonal attraction and task efficiency was 0.284.

[58] Chiocchio and Essiembre (2009) found the magnitude of the correlation between task cohesion and behavioral performance was 0.343. The magnitude of the correlation between social cohesion and behavioral performance was 0.485.

cohesion and outcome performance, a decline that was not evident in the relationship between task cohesion and outcome performance.[59]

These mixed results stem from multiple causes. First, different analyses use different definitions of social cohesion. This makes it particularly difficult for meta-analyses to pinpoint the relationship between social cohesion and unit effectiveness. Second, although social cohesion, and in particular trust,[60] has been linked to positive performance-related outcomes such as improvements in cooperation (McAllister, 1995), communications (Smith and Barclay, 1997; Reagans and McEvily, 2003), and organizational citizenship (Brief and Motowidlo, 1986; Konovsky and Pugh, 1994; Kidwell, Mossholder, and Bennett, 1997; Brower et al., 2009; and Chen, Tang, and Wang, 2009), high interpersonal attraction is also associated with deleterious performance-related outcomes such as reduced focus on task-related group goals (Carreiras and Kummel, 2008), group-think (Janis, 1982; Baron, 2005) and excessive socializing (Davis, 1969; Steiner, 1972; and Tziner, 1982). Third, the effect of social cohesion on group performance may depend on the group's level of task cohesion. Fourth, social cohesion is likely to affect unit performance indirectly rather than directly, making it difficult to measure in meta-analyses of studies that assess the direct effects of cohesion on group performance. In particular, the increased stress buffering and mental resilience experienced by individuals in units with high social cohesion may improve unit performance indirectly in high-stress situations, but may have no effect on performance in other situations. This is particularly difficult to identify through previous cohesion meta-analyses, as most of the studies included few, if any, samples of people who have undergone extremely stressful conditions, such as combat (Griffith, 2012).

### Social Support Can Improve Unit Members' Resilience

In response to the increase in reported cases of post-deployment psychological distress that military personnel have experienced, military health experts have assessed whether social support can ameliorate individuals' vulnerability to the symptoms of mental distress such as post-traumatic stress disorder.[61] Studies based on U.S., British and Canadian general purpose forces have found that social support appears to reduce combat-related stress and increases psychological resilience. Studies have found a positive relationship between social support and increased psychological resilience across a range of mental distress symptoms.

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[59] Chiocchio and Essiembre (2009) reported the mean correlation between task cohesion and outcome performance was 0.346. The reported mean correlation between social cohesion and outcome performance was 0.201.

[60] Trust has been linked broadly with performance at both the group and the individual level (Lawler, 1992; Mayer and Davis, 1999; Dirks, 1999; Costa, Roe, and Taillieu, 2001; Costa, 2003; Schippers, 2003; Dirks and Skarlicki, 2009; Hempel, Zhang, and Tjosvold, 2009; Mach, Dolan and Tzafrir, 2010).

[61] These findings build on an older literature that found that groups suffered greater disintegration when cohesion was low, and that cohesion reduced the negative effect of stress on individual well-being and performance (Savage and Gabriel, 1976; Steiner and Neumann, 1978; Solomon et al., 1987; Solomon, Mikulincer, and Flum, 1988; Solomon & Mikulincer, 1990; Quick et al., 1996; Watson, 1997).

A key focus in the literature has been on the role of social support in reducing the onset of post-traumatic stress disorder (PTSD). In an analysis that limited the source of PTSD triggers to non-battlefield life experiences, Brailey and colleagues focused on the relationship between unit cohesion and PTSD in a sample of U.S. Army soldiers who had never deployed to a warzone (Brailey, et al 2007). They found that soldiers from units with high cohesion were less likely to exhibit PTSD symptoms than soldiers in units with lower cohesion, and that high unit cohesion attenuated the impact of life experiences on PTSD. In an analysis of U.S. OEF/OIF veterans, Pietrzak and colleagues found that veterans who believed their units provided social support were less likely to suffer from PTSD symptoms such as sleep difficulties (Pietrzak, Morgan, and Southwick, 2010). British studies have revealed similar results (Iversen et al 2008; Rona, Hooper, et al 2009; and Du Preez et al 2012). Researchers also have found a positive relationship between increased unit cohesion and reductions in a broader set of psychological distresses, such as low self-esteem and depression (Ahronson and Cameron, 2007), sleep disorders (Pietrzak, Morgan, and Southwick, 2010), risk behaviors (Griffith and West, 2010), and suicide ideation (Mitchell et al., 2012).

Although most military health studies have focused on the relationship between social support and mental distress in general purpose forces, Sundin and colleagues examined the effect of cohesion in two British SOF communities—the Royal Marines Commandos and paratroopers, to the role of cohesion in the British Army Infantry (Sundin et al., 2010). Their results for British SOF units were similar to those found in other units. Although the SOF units reported higher levels of unit cohesion than infantry units, within the SOF sample, higher levels of unit cohesion were associated with lower levels of mental distress. Sundin and colleagues' results suggest that SOF operators tend to have greater resilience than conventional forces, but that the benefits of social support are important for SOF operators.

Some caveats need to be borne in mind when interpreting the strength of these studies as almost all were based on surveys that relied individual respondents' assessments of their unit cohesion, and in which researchers were unable to observe the effects of any traumatic events that unit members may have experienced. Taken together, however, these analysts have found that social cohesion appears to strengthen group solidarity and integration, enabling groups to perform tasks effectively in stressful environments such as conflict, and reduces the probability that unit members will experience mental distress in the aftermath of their operations (Griffith, 1988; Griffith and Vaitkus, 1999; and Griffith, 2002).

### High Interpersonal Attraction May Reduce Unit Effectiveness

High interpersonal attraction has been associated with reduced group performance (Stogdill, 1972; Rovio et al., 2009). For example, highly socially cohesive groups may prolong tasks in order to spend more time with each other. The group may prioritize socializing with each other over completing their tasks efficiently (Davis, 1969; Steiner, 1972; Tziner, 1982). More

perniciously, groups with high interpersonal attraction may succumb to "groupthink" (Janis, 1982).

There are three main types of groupthink symptoms (Janis, 1982):[62]

- overestimation of the in-group (as strong, smart, invulnerable, morally superior), with corresponding negative stereotyping regarding the out-group (as weak, immoral, stupid, and wrong)
- close-mindedness (e.g. rationalization of doubt), and
- pressures for uniformity (via self-censorship, and illusions of unanimity)

Groupthink symptoms may manifest into defective decision-making processes:

- inadequate contingency planning
- inadequate information gathering
- biased risk assessment
- inadequate consideration of range of options
- inadequate consideration of the extent to which the advocated action meets original/fundamental objectives

Not all socially cohesive groups experience groupthink. In a review of thirty years of work on groupthink, Robert Baron (2005) found that groupthink was most likely in groups typified by high self-identification with the group, high group norms, and low self-efficacy. In particular, groups high in social cohesion, but low in task cohesion were most likely to experience groupthink. As task cohesion increased, the symptoms of groupthink disappeared. Similarly, Paul Bernthal and Chester Insko (1993) assessed the relationship between task cohesion, social cohesion and groupthink more directly, finding that groupthink was present in groups with high social cohesion and low task cohesion, but that groups high in task cohesion were unlikely to experience groupthink, regardless of level of social cohesion.

### Social and Task Cohesion May Increase Unit Effectiveness Jointly

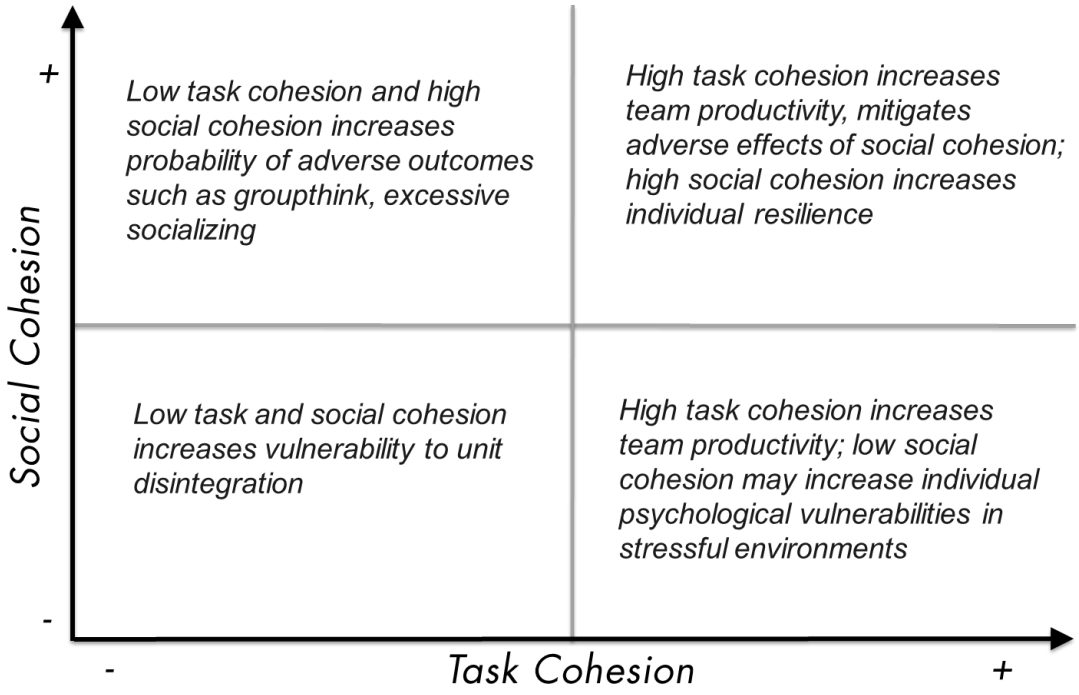
Although there has not been a large amount of analysis examining the interactive effect of social and task cohesion, and none of it has been done with SOF units in the sample, researchers have found that groups that have high social and task cohesion tend to have higher performance than groups that have either low social or low task performance (Zaccaro and McCoy, 1998). In particular, social and task cohesion appeared to be most reinforcing when groups engaged in disjunctive tasks, in which the group must determine a single solution for the entire group. Most SOF unit tasks are disjunctive tasks in which the unit must choose a specific strategy to achieve their objectives.

The finding that groups that are more socially and task cohesive have higher group performance comports well with broader social and task cohesion findings and seems to apply well to SOF units. Based on these findings, we map the key interactive cohesion expectations for

[62] Baron (2005) provides a summary and discussion of Janis' original conceptualization of symptoms and defective decisionmaking processes.

SOF units in Figure 4.3. Units that have high social cohesion and low task cohesion may result in the lowest unit effectiveness, as they are the most likely to suffer from the deleterious effects of social cohesion. This expectation derives from the groupthink literature discussed in the previous section in which the adverse effects of high social cohesion diminished as task cohesion increased (Baron, 2005; Bernthal and Insko, 1993). Units that have neither task nor social cohesion may not suffer from the deleterious effects of social cohesion, but will lack motivation to coordinate their efforts to accomplish a shared common goal. Units that have high task cohesion and low social cohesion may perform well, particularly in less stressful environments, but may be vulnerable to the deleterious effects of low individual resilience in high stress situations. In contrast, we expect that the highest performing units in stressful environments are likely to be units that are highly task oriented, and in which team members experience high levels of trust and social support.

**Figure 4.3. Expectations for the Joint Effect of Task and Social Cohesion in SOF Units**




SOURCE: RAND analysis

## Cohesion Considerations for Integrating Women in SOF Units

In this chapter we provided a multidisciplinary overview of small group cohesion and discussed how cohesion can increase unit performance and individual unit members'

psychological resilience. Based on our review of cohesion and group performance, some key findings emerge with regard to cohesion in SOF units.

- Unit cohesion is multidimensional; it includes both instrumental (task cohesion) and affective (social cohesion) components;
- Task cohesion can increase unit effectiveness;
- Social cohesion can increase individual unit members' resilience;
- Task and social cohesion jointly can increase units' effectiveness and resilience.

The benefits of cohesion on team performance increase for small, autonomous teams that engage in intense, cooperative tasks; depend on team members' capabilities to accomplish their goals; and operate in stressful situations. These characteristics typify small SOF tactical units, in which each team member is critical to accomplish interdependent tasks, and which operate for long time periods in extremely austere, physically demanding and highly stressful environments.

Research on the effects of gender integration on unit effectiveness and unit cohesion has been mixed. Most studies that have examined the relationships between gender and unit readiness and cohesion in conventional forces have not identified any direct effects (U.S. Army Research Institute 1977, Johnson et al. 1978, GAO 1993, Harrell and Miller 1997). This led the Defense Advisory Committee on Women in the Services to conclude in 2009 that "there is little empirical evidence that the presence of women in military units reduces cohesion." (DACOWITS 2009: 13). However, some studies have identified indirect effects of gender integration in which pre-existing unit concerns such as low unit cohesion, low acceptance of women and quality of leadership considerations have larger adverse effects on unit readiness and cohesion in mixed gender units.[63]

An Army study assessing the return of forces to Germany (REFORGER) exercises in 1977 found no discernible, independent effect from gender on Army companies' operational capabilities, reporting that: "There were no consistent patterns of individual male versus female performance differences over the entire exercise, whether the tasks performed were considered as a whole, were divided into common and unique tasks, or occurred in high stress or low stress companies." (Johnson et al. 1978: I-2) However, Johnson and colleagues did find that the performance of women - even more so than men - were affected by the quality of leadership and management policies. The authors reported, "Leadership and management problems were widespread and appears to be the underlying cause of many problems involving women who were observed in REFORGER" (Johnson et al. 1978: I-3). Segal and Bourg (2002) argue that quality of unit leadership is a critical variable for managing gender integration.

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[63] It is important to note that the studies examined in this section focus on conventional forces. There has been speculation that the greater importance of cohesion for SOF units may reduce the applicability of these findings for SOF units. For instance, although there is little evidence in conventional forces that the social heterogeneity created in units through gender integration has contributed directly to erosion in unit cohesion, given the higher levels of cohesion in SOF units, the social heterogeneity engendered by integrating women may have a greater adverse impact in SOF units (Simons 2014).

Research by Leora Rosen and colleagues has found that male soldiers' acceptance of women in their unit appears related to how cohesive mixed gender units are. In a survey of combat service support soldiers, Rosen and colleagues found that for junior enlisted males, individual soldier's perceptions of horizontal cohesion was positively correlated with their personal perceptions of their acceptance of women (Rosen et al 1996). This effect was counterbalanced by their overall lower perception of cohesion in units with a higher percentage of women. In 2003, Rosen and colleagues looked more closely at the role hypermasculinity, which they defined as the extreme or exaggerated attributes that are stereotypically associated with being a man, played in male soldiers' acceptance of women in their units, and in the creation of unit cohesion more broadly (Rosen et al 2003). They examined the effects of hyper-masculine culture on unit cohesion using a survey of active duty men and women stationed at an Army post in Alaska in 1998. They found that hypermasculinity was positively correlated with cohesion in all-male units. In contrast, hypermasculinity was negatively correlated with unit cohesion in mixed gender units; however, these results were not statistically significant.

In previous RAND research, Margaret Harrell and Laura Miller found that when women were perceived as competent in non-combat units, gender generally had a minimal effect on task cohesion (Harrell and Miller 1997). In contrast, units with preexisting conflicts and divisions were more likely to identify gender as a cause of negative unit outcomes. As Harrell and Miller note, "people whose unit cohesion appeared to be low were most likely to mention gender as an issue, although gender was only one of several characteristics that separated people—and was often not the primary rift." (Harrell and Miller 1997: 61)

The importance of perceived competence for unit members' acceptance was evident in Berkshire Consultancy's 2009 interviews of British male soldiers serving in mixed-gender units involved in close ground combat incidents, as well as in our survey and focus group analyses. In a sample of British soldiers who had served with women in combat, Berkshire Consultancy (2009) found that most interview respondents did not perceive any impact on task performance during combat due to women's presence: "For the small minority of men who felt there was a detrimental impact, this was due to lack of perceived competence in her role and her lack of strength/training, reflecting her not having been selected or trained to deliberately undertake ground close combat." As we describe in Part II of this report, our survey and focus group analyses suggest that perceptions of performance and competence play at least as important a role in generating cohesion in SOF units. Based on previous research on gender integration in conventional forces, we expect that the effect of gender integration on cohesion in SOF units will reflect acceptance of women in the unit rather than overarching gender differences. More specifically, we expect that integrating women into SOF units has the potential to reduce unit cohesion if female SOF personnel are not perceived as competent and are not accepted as full members of their teams. Women's acceptance on teams will reflect their ability to perform team tasks, other team members' willingness to accept women on the team, and leaders' efforts to promote integration.

Male unit members' perceptions of women's performance and competence may be influenced by many factors. Women's performance on unit tasks will shape unit members' perceptions of competence. Perceptions of women's competence will also reflect the quality of members' prior experience working with women,[64] and potential biases in assessing women's capabilities.[65] Male unit members' beliefs about the standards to which women are held will also influence their perceptions of women's competence. Studies have found that some U.S. military personnel believe that women are held to lower standards.[66] This belief informs their expectations of women's competence.

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[64] In a meta-analysis of intergroup contact, Pettigrew and Tropp (2006) find that overall, increasing intergroup contact is associated with increased perceptions of competence. Duehr and Bono (2006) found that male expectations that women could be good managers were correlated with their past satisfaction with women as their managers. In an analysis of officers in the Swedish Armed Forces, Ivarsson, Estrada, and Berggren (2005) found that the quality of officers' contact with women in the military was strongly correlated with their attitudes toward women in the military. Young and Nauta (2013) found similar results in a sample of U.S. ROTC students. The effect of in-group perceptions of out-group individuals is not limited to gender. An analysis of peer perceptions in the Israel Defense Force found similar effects across ethnic groups (Ben-Shalom 2012). These results match those in our survey of SOF personnel, in which respondents' attitudes toward integrating women into SOF units were positively correlated with the quality of their experiences working with women. They also comport well with the U.S.'s past experience with integrating out-groups, such as African-Americans, women and homosexuals into the military.

[65] Foschi (1996, 2000) has found that people often rate the same performance by men higher than women on gender-neutral tasks. Looney, Robinson-Kurpius, and Lucart (2004) undertook an experiment at the U.S. Naval Academy in which they asked midshipmen to rate officers for a possible promotion based on a written fitness report. Participants received identical fitness reports for either Lieutenant Alice Reynolds or Lieutenant Arthur Reynolds. Looney, Robinson-Kurpius, and Lucart found that participants ascribed more emotional characteristics to Alice Reynolds than they did to Arthur Reynolds.

[66] In a recent Air Force Academy study, Do et al (2013) found that 20% of study participants believed that women are held to lower military standards. In a series of structured interviews with Marines, Archer (2012) found that gender stereotypes influenced the perceived abilities of female Marines.

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# Part II: Expectations of SOF Personnel Regarding Potentially Integrating Women into SOF Units

As discussed in Part I of this report, the previous integrations of excluded groups in the U.S. armed forces identified two main challenges perceived by military personnel during each integration episode. First, personnel were often concerned that members of the excluded group would be unable to cope mentally and/or physically with the tasks assigned to the unit. Second, personnel were concerned that integrating members of the excluded group would erode unit cohesion. These concerns were generally mitigated when there was evidence that personnel from the previously excluded groups did not erode unit readiness or cohesion.

Based on these historic integration concerns, as well as the differences between male and female physiology, the different abilities of males and females to do physically demanding jobs, and potentially different stress responses among males and females, if the currently closed SOF specialties are opened to women, we need to identify the potential challenges that might accompany such integration so that USSOCOM can design a program of integration that is successful and retains a highly capable, if not a stronger, force. An important component to understanding these challenges is to assess the extent to which the issues of physical and mental abilities' impact on dynamics within the small unit are perceived as problematic among the currently serving SOF personnel in the specialties that have been closed to women.

In this section of the report we discuss the data that we collected as part of our research regarding the impact of potential integration of women into SOF units. In order to understand the concerns of SOF personnel and the potential challenges to the successful integration of women into SOF, we collected primary data on SOF personnel's expectations about the challenges and benefits of potentially integrating women into SOF units, and their recommendations for implementation. We adopted two approaches to eliciting SOF personnel's opinions on integrating women into SOF units. First, we conducted a census-type survey of personnel currently serving in the positions closed to women by specialty, focusing on the potential challenges to the integration of women into SOF. Second, in order to complement the survey and add richness to the survey data, we supplemented the survey with information from focus group sessions conducted with participants from all SOF service components and across ranks and grades.

Chapter 5 provides an overview of the survey design and how it was implemented, presents our main findings from the survey, identifies the key drivers of support and opposition to the integration of women into SOF specialties and units, and discusses the conclusions and policy implications of survey findings. Chapter 6 provides an overview of the focus group design and how they were conducted, presents the focus group participants' expectations regarding the potential impact of integration, their concerns regarding the integration of women into SOF

specialties and units, and their expectations regarding the potential impacts of gender integration on recruitment and retention; and discusses the conclusions and policy implications of the focus group findings. Both chapters provide fine-grained analyses across service components and rank and grade.

The main finding in both our survey and focus group analyses is that there is strong, deep-seated, and intensely felt opposition to opening SOF specialties that have been closed to women. Overall, 85 percent of survey participants opposed letting women into their specialty, and 71 percent opposed women in their unit. Although opposition exists across all services, elements, specialties, and rank groups, SEALs, AFSOC Special Tactics Team members, and Non-Commissioned Officers (NCOs) appeared most strongly opposed. The dominant perspective across the focus groups was that women should not be integrated into SOF units and specialties, with potential impact on mission effectiveness and their continued ability to function as a highly performing team central to participants' concerns.

SOF personnel identified three main concerns about unit effectiveness that might ensue from integrating women into SOF units. First, many SOF personnel were concerned that standards would fall. Second, many SOF personnel were concerned that integrating women into SOF units would erode unit cohesion. Third, many SOF personnel were concerned that integrating women into SOF units would reduce the availability of leaders to resolve conflict between unit members.

Overwhelmingly, SOF personnel who participated in the survey and/or the focus groups identified maintaining high performance standards as the most important criterion for successfully implementing the directive to open SOF specialties to women. In both the survey and focus group analyses, SOF personnel expressed significant doubts that women will be able to meet the physical, mental, and overall job demands of closed SOF specialties. Emphasizing current SOF personnel's concerns over the potential adverse impact that may ensue if women are integrated into SOF units, many survey respondents and focus group participants believe that performance standards will be lowered so that women can qualify. In particular, focus group participants emphasized their concerns that political pressure would lead to women being pushed through training and that over time, standards would fall for women and men.

SOF personnel were also concerned that integrating women into SOF units would erode task and social cohesion. 80 percent of survey respondents expect a decline in task cohesion and 83 percent expect a decline in social cohesion. Focus group participants emphasized their beliefs that male unit members' behavior would change if females were part of the team, and that the small team dynamics that contributed to SOF unit effectiveness would erode. Examples ranged from how male unit members communicate and socialize, to whether they would be able to trust male unit members who got distracted either because they were overly-protective of or were sexually attracted to female unit members.

Issues of leadership and personnel management were raised in both the survey and the focus groups. 65 percent of survey respondents expect that it will be more difficult to go to unit leaders when there are problems or concerns regarding conflicts between unit members involving

women. Focus group participants expressed their concerns that favoritism might be shown toward women in terms of training, promotion and allegations of sexual harassment and sexual assault.

In addition to the widely-held concerns by SOF personnel that integrating women into SOF units might have an adverse impact on standards, cohesion and leadership, other concerns were also raised, ranging from the potential impact on working with some foreign partners, to complications in men's marriages stemming from lack of privacy and close physical contact among team members that now would include women. Many of the issues brought up in the focus groups focused on the impact of female medical issues (higher injury rates, hygiene and increased risk of infections in austere operational environments, menstruation and impact on performance) and the deployability of women (pregnancy, restrictions on utilization of women in some missions) on unit readiness. Some survey respondents and focus group participants also expressed concern about the retention of experienced males in SOF and about the recruitment and retention of women.

Perceptions of SOF personnel about the magnitude of the potential challenges to the successful integration of women into SOF may reflect the poor quality of the prior experiences working with U.S. military women in combat environments that most survey respondents and focus group participants reported. If so, it will be important to "reset," and create a "new normal" in special operators' assessments to overcome the negative perceptions that currently prevail.

Despite the concerns most survey and focus group participants raised about potentially integrating women into SOF units, some participants also highlighted potential benefits integrating women into SOF units might provide. About four in ten survey respondents agreed that women might be helpful in conducting sensitive operations, and communicating with local populations. Accordingly, there is higher support, based upon mission requirements, for attaching women in other specialties to SOF units, and higher support for opening SOF *units* to women, than there is support for opening currently closed SOF *specialties* to women.

A minority of survey respondents and focus group participants believed that well-trained women in SOF could be highly capable enablers who could enhance effectiveness in some missions (surveillance, intelligence, reconnaissance, access to specific populations) and that allowing women to join SOF would provide USSOCOM access to a pool of highly capable and motivated individuals. However, one striking finding from the focus groups was that many participants were uncertain as to why USSOCOM ought to consider integrating women into SOF units. Many participants stated that was unclear what additional capabilities women could provide, and that they felt that integration was a political decision and that SOF was being used as a social experiment.

Before proceeding further, we note an overarching caveat to the data presented in the two chapters in this section of the report. Our effort was designed to elicit speculation as to the impact of the integration of women into SOF so as to gauge the extent of challenges and a deeper understanding of the concerns of SOF personnel. This speculation was not based on actual

experiences of SOF personnel, because women are not in those units. Thus, the response is based on SOF personnel believe might happen and those views are influenced by many factors, including the perceptions of their own elite status, views of women in society, limited observations of women under fire, and feelings toward organizational change, to name just a few. Moreover, as we discussed in the previous section, debates over military personnel policy take place in the political realm. Our data collection did not happen in a vacuum; instead, the intense level of feelings on the issue of the integration of women into SOF may be a symptom of the highly charged political environment on this issue and reflect the fact that SOF personnel were given an opportunity to weigh in on the issue. We caution the reader that similarly high level of negative responses and intense feelings were voiced by service members prior to the repeal of DADT and prior to the entry of excluded groups into the military. As we note in chapter 2, those opinions turned out to be misleading as a guide toward the actual impact of the policy changes and the military's adaptation. The opinions expressed in chapters 5 and 6 relate to the extent and depth of concerns but do not necessarily foreshadow the policy outcome if the policy on entry of women into SOF were to change.

# 5. The Women in SOF Survey

## Introduction

Based on the concerns for unit cohesion that may come with the integration of any previously excluded group and on the differences between male and female physiology, the different abilities of males and females to do physically demanding jobs, and potentially different stress responses among males and females, if the currently closed SOF specialties are opened to women, we need to understand the potential challenges that might accompany such integration so that USSOCOM can design a program of integration that is successful and retains a highly capable, if not a stronger, force. The first step to such an understanding is to gain an accurate assessment of the magnitude and scope of the potential barriers and challenges to successful integration of women into SOF within the force. The critical element here is to understand the extent to which the issues of physical and mental abilities and impact on dynamics within the small unit are perceived as problematic among currently serving SOF personnel in the specialties that have been closed to women, since – if the SOF positions are opened to women – then any women who self-select into these SOF specialties will encounter first hand these perceptions and attitudes. Success of any such integration then will depend on overcoming those perceptions and the challenges stemming from them.

Before proceeding, several cautions are in order. First, the survey dealt with a highly politicized issue, and respondents may have viewed the survey as a referendum on the policy change, rather than an opportunity to identify potential challenges, and options for smoothing implementation; although our analysis of "extreme responders" suggests that very few respondents responded in an overt, systematically oppositional, and strategic fashion, it is certainly possible that our results reflect more subtle strategic responses. Second, we note that many of our survey questions asked respondents about their expectations regarding very specific potential consequences of integrating women into closed SOF specialties. But as described in Chapter Two, many military personnel made quite dire predictions in earlier efforts to open the military to African-Americans, and gays and lesbians that proved to be quite wrong. Moreover, there is a substantial scholarly literature that suggests that individuals are not very good at making predictions, perhaps especially in cases where strong emotions are involved.[67] Accordingly, we caution that responses to these questions need to be interpreted very carefully.

[67] For example, Philip Tetlock's (2007) research has shown that experts are no better than dilettantes in their predictive accuracy, and some dilettantes ("foxes," in Tetlock's vernacular) may actually have the upper hand. RAND's 1993 report on gays in the military provides an analysis of research on why people's actual behavioral responses are sometimes very different than one might predict on the basis of their attitudes (Rostker et al, 1993). Nisbett and Wilson (1977) found individuals to be generally incapable of explaining the motivations for their

We are not aware of any recent systematic and comprehensive study that has assessed the perceptions and views of all USSOCOM personnel in positions currently closed to women regarding the topic of integration of women into SOF.[68] Consequently, in cooperation with USSOCOM, we designed and administered a survey to gauge the extent of potential challenges to the integration of women into SOF among the personnel in USSOCOM-controlled positions that have been closed to women. To complement the survey, add richness, and gain a more nuanced understanding of the potential challenges, we conducted a series of focus group discussions with SOF personnel. This chapter presents the results of our survey and the analyses we conducted using the survey data. The next chapter summarizes the findings from our focus groups.

Based on the survey, our main findings are:

- Opposition to opening SOF specialties to women is both deep and wide, with high levels of opposition across all SOF elements. Our analyses of responses to open-ended questions suggest that this opposition also is deep-seated, and intensely felt.
- The principal sources of this opposition are: the belief among SOF that women do not have the physical and other capabilities to meet the demands of their SOF specialties; the belief that the current, high levels of cohesion and trust in their units will suffer if women are allowed in; and the importance SOF personnel attach to maintaining high standards, coupled with deep concern that performance standards may nonetheless be lowered to enable women to qualify for their specialties.
- The lower level of opposition to women in SOF units than specialties, and the fact that about four in ten of our respondents agreed that women might be helpful in conducting sensitive operations, and communicating with local populations, may present additional opportunities for the participation of women in SOF.

The chapter is organized in six main sections:

1. Identification of the policy questions that guided development of the survey instrument;
2. Background on the survey design and implementation;
3. The analytic approach we took in addressing the policy questions;
4. Presentation of our main findings on each policy question;
5. The results of statistical analyses that helped us identify the key drivers of support or opposition for opening SOF specialties to women; and
6. Brief discussion of the implications of our analyses for the potential opening of previously closed SOF specialties to women.

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behavior. Research by Kahneman (1992), and Kermer et al (2006) on "affective reasoning" has shown that people are sometimes very bad at predicting future emotional states.

[68] We are aware of two studies in 2014, neither of which is available to the general public, that partially addressed SOF concerns about opening currently closed positions to women: a survey of AFSOC personnel in closed specialties, and a study of Army Special Forces that used focus groups..

## Policy Questions

We designed the survey to address nine key policy questions, as follows:

- Do special operators generally favor or oppose policies to open their specialties and units to women?
- How important to special operators is the issue of integrating women into SOF?
- What experience do special operators have working with military women?
- What pre-existing attitudes do special operators have regarding women who may be integrated into their specialties?
- What do special operators believe might be the greatest benefits that might result from opening closed SOF positions to women?
- What do special operators suggest might be the greatest challenges USSOCOM leaders will face in opening closed SOF positions to women?
- What *impacts* do special operators expect on the following: unit performance, unit cohesion, unit trust, and leadership and personnel management?
- What implementation actions do special operators believe USSOCOM leaders should take to foster more beneficial outcomes, and to address key challenges?
- How do responses to the above questions vary by key sub-group (e.g., service, unit, specialty, grade)?

Each of these questions is addressed in the section on our main findings.

## Survey Design & Implementation

### *Survey Design*[69]

We designed the survey to address these policy questions while also gathering information to touch upon a number of theoretically and practically important constructs that have been discussed in the scholarly literature on military performance, including:

- Task cohesion, the extent to which members of a team work well together to accomplish a task or mission;
- Social cohesion, the extent to which members of a team like one another and are connected by friendship, familial, or other social bonds;[70]
- Trust, the extent to which members of a team believe that they can rely on other members of the team;
- Leadership, especially the extent to which leaders are available to help resolve conflicts between team members; and
- Contact, which builds from the contact hypothesis that argues that the greater the number of interactions with an out-group, and the better the quality of the experience from those

[69] For additional detail on the survey design, see Appendix B (Szayna et al., 2015).

[70] For a detailed review of scholarly work on task and social cohesion, see the Chapter Four on cohesion.

interactions, the more favorably disposed an individual will be to members of the out-group.[71]

In addition, we designed the survey to pose questions that could help to illuminate the respondent's views on the expected consequences of opening his specialty or unit to women. Some questions, for example, asked the respondent to assess his current unit on some measure (i.e., task cohesion, social cohesion, trust, leadership) and also to indicate his expectations of how he might assess his unit on this measure if it included women. In other cases, we asked questions about the likelihood of specific consequences (e.g., that having women in the unit would improve the unit's ability to operate in other cultures).

To accommodate the policy questions, the underlying theoretical constructs, and the desirability of assessing the current unit and potential consequences of opening the unit to women, we organized the survey in 11 domains of inquiry, with several related questions in each domain. The domains comprised the following elements:

- Q1-Q3: Open-ended questions that asked respondents about the possible benefits of opening specialties to women, as well as their key concerns, and actions that might address these concerns;
- Q4-Q8: Questions asking respondents their views about the importance of various measures to successfully implementing the policy to open SOF positions to women;[72]
- Q9-Q10: Questions on the importance of the issue to respondents, as indicated by the amount of attention they had paid to news and information on the subject of opening SOF specialties, and how much they had thought about the issue;
- Q11-Q12: Questions that asked about the amount and quality of experience respondents had had working with U.S. military women in a combat environment;
- Q13-Q19: Questions asking for assessments of the task cohesion, social cohesion, level of trust, and leadership management of conflict in respondents' current unit;
- Q20-Q21: Questions on respondents' approval or disapproval for opening their specialties or units to women;
- Q22: A question on the respondent's level of concern that physical job standards for their specialty will be lowered;
- Q23-Q25: Questions asking about respondents' beliefs about women's physical, mental, and overall capabilities for their job specialties;
- Q26-38: Questions asking about the anticipated consequences of opening specialties on task cohesion, social cohesion, trust, and leadership management of conflict in the respondent's unit in the event that their specialties are opened to women;
- Q39: An open-ended question that asked the respondent if there were any other thoughts he wanted to share; and
- Q40-Q46: A series of demographic questions.

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[71] For a more thorough description of the intergroup contact hypothesis and conditions for optimal intergroup contact, see Pettigrew, 1998.

[72] See for example, Krosnick et al. (1993), who treats issue importance as one of a number of proxies for attitude strength.

To the maximum extent possible, we used (or adapted) questions that had been used in previous peer-reviewed RAND research, or in relevant academic research. Our initial collection effort yielded about 140 candidate questions for the survey, which, with our additional research into relevant scholarly work in the area, expanded the pool of items to about 300 candidate questions for the draft instrument. To ensure a balanced survey and the availability of multiple items for each construct we were measuring, we constructed a 24-cell survey design matrix defined by six key themes (cohesion, performance, readiness, morale, leadership/personnel management, and general women in SOF issues), and four substantive sections (experience, attitudes, expectations, and implementation advice). Our initial planning target was a survey of about 100 mostly closed-ended questions that would take respondents about 20 minutes to complete, and would, on average, entail about four questions in each cell of our survey design matrix. In consultation with SOCOM, the design target for the survey was subsequently reduced to a shorter instrument of about 50 questions that would take respondents about 10 minutes to complete, and would, on average, have about two questions in each cell of the survey design matrix. The survey instrument went through multiple reviews before finalization.

Supplemental information for those interested in the study methods is published in a series of appendices in Szayna et al, 2015. For details on the relationship between these policy questions and individual items in our survey instrument, see Appendix B. Also see Appendix C for sampling frame options for the survey, Appendix D on efforts to reduce respondent burden, and Appendix E for additional details on key variables and constructed indices in our analyses.

### *Survey Implementation*

The survey was conducted over eight weeks, from May 15, 2014 to July 15, 2014. Eligible respondents were personnel serving in SOCOM-controlled SOF specialties that have been closed to women. Invitations to participate in the online survey were emailed to more than 15 thousand servicemen in these specialties. All individuals were informed that their participation in the survey was completely voluntary, that their commanders would not know whether or not they completed the survey, and that there was no penalty for choosing not to respond. See Appendix F for the informed consent statement, Appendix G for the exact wording of all questions on the Women in SOF survey (the instrument in its entirety), Appendix H for the survey recruitment materials, and Appendix I for the memorandum certifying the scientific merit of the survey (Szayna et al, 2015).

The survey yielded a total of 7,618 completed surveys, for an overall response rate of 50.1 percent.[73] The survey achieved a high response rate (see Table 5.1), and evaluation of the composition of the sample revealed that the sample composition was reasonably representative

[73] The data were cleaned to remove respondents who were not members of the specialties of interest. We believe that the low response rate from AFSOC might have been due to "survey fatigue," as we understand that AFSOC Battlefield Airmen had been surveyed just prior to the fielding of our survey.

of the target population.[74] See Appendix J for detailed information on the implementation and response rate to the Women in SOF survey (Szayna et al, 2015). For inference, the survey results accordingly were reweighted to exactly match the population on SOF element and rank group to provide estimates of the larger population.[75]

**Table 5.1. Response Rates by SOF Element and Rank Group**

| Element | E1-E4 | E5-E6 | E7-E9 | Officers | Total |
|---|---|---|---|---|---|
| AFSOC | 11.0 | 14.7 | 28.7 | 23.0 | 17.3 |
| Ranger | 65.8 | 74.5 | 77.4 | 99.0 | 71.9 |
| Special Forces | na | 29.7 | 43.4 | 49.7 | 40.5 |
| MARSOC | na | 44.9 | 51.6 | 66.3 | 49.1 |
| SEAL | 56.8 | 54.1 | 61.9 | 57.8 | 56.9 |
| SWCC | 100.0 | 62.3 | 68.5 | 100.0 | 67.8 |
| TOTAL | 59.8 | 45.5 | 48.6 | 55.9 | 50.1 |

NOTE: Unweighted sample; NA = not applicable.

The strong correlation between the composition of the survey sample and the SOF population when comparing the matrix defined by SOF element and rank group—the correlation was .95—suggests that the sample looks very much like the population (see Appendix J).

## Analytic Approach

In this section, we summarize our approaches to analyzing the closed-ended and open-ended questions.

### *Approach to Closed-Ended Questions*

We analyzed the survey results from a number of different analytic perspectives.[76] For the closed-ended questions (see Appendix K for charts of survey results), the analytic approach included the following steps:

[74] The correlation between the sample and population percentages in a matrix defined by SOF element and rank group was 0.95. For additional details on how the population and raw sample compare, see Appendix J (Szayna et al, 2015). In addition, several characteristics of the average member of our sample appeared to be quite close to those said to describe the typical USSOCOM special operator: 68 percent of our sample was married; the average age was 30.6 years old for enlisted and 35.5 years old for officers, and 51 percent of the sample had an Associate or higher college degree. See "The Typical Special Operator…," in U.S. Special Operations Command *Factbook 2014*, p. 58.

[75] Because the response rate for AFSOC is much lower than that for the other SOF elements, the results for this SOF service component are least reliable, statistically speaking.

[76] Unless otherwise noted, we report weighted results.

- Calculating univariate descriptive statistics and graphing the results of each survey question to understand the basic distribution of responses (see Appendix L and Appendix M);[77]
- Constructing indexes of selected variables (see Appendix E);[78]
- Reviewing bivariate cross-tabulations, correlation, and regressions of various question combinations of questions to understand their basic relationship and level of association between the outcome of interest (Q20, support or opposition to opening SOF specialties to women), and other variables;[79]
- Conducting exploratory factor analyses to reveal the underlying structure of our independent variables, and Classification and Regression Tree (CART) analyses, an empirical technique that recursively partitions observations into progressively smaller groups, and presents results in terms of a classification tree, to identify which independent variables are the most important predictors of the dependent variable, support or opposition to opening specialties (Q20);
- Conducting multivariate statistical modeling to identify the key drivers of support or opposition to opening SOF specialties (Q20);[80] and
- Comparing various sub-groups, e.g., SOF elements, rank groups, specialties, extreme and non-extreme responders, and those who had a positive or negative experience in working with U.S. military women in a combat environment.[81]

Because the focus of our survey is on the potential policy change of opening SOF specialties (not units) to women, and because the results for the two questions that ask this directly are so highly correlated,[82] we focused most of our statistical analyses on Q20, which asked respondents whether they favored or opposed opening their specialties to women, but do review some additional survey evidence related to the difference in responses to Q21, which asked whether respondents favored or opposed opening their units to women.

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[77] Charts reporting the marginal percentages selecting each response on each question and constructed index are reported in Appendix L; univariate descriptive statistics for each are reported in Appendix M (Szayna et al, 2015).

[78] The construction of indexes is described very briefly later in this chapter, with more detail provided in Appendix E (Szayna et al, 2015).

[79] As the data from the survey were primarily ordinal rather than interval level, we used two non-parametric correlation statistics—Spearman's rho and Kendall's tau-b—for all correlations for unweighted sample data, but only Kendall's tau-b for the weighted sample, as Spearman's rho is unsuitable for use with weighted sample data.

[80] Most of our multivariate statistical modeling involved ordered logit models, which are the most suitable model form for ordinal level data.

[81] For example, to assess similarities and differences in the response patterns to our closed-ended questions, we computed correlation coefficients for all possible sub-group pairs (e.g., by Service, SOF element, specialty, and rank group) for all questions using the unweighted sample, and ran separate multivariate models for each SOF element.

[82] We computed the correlations between responses to Q20 and all other variables, and responses to Q21 on all other variables, for the unweighted sample, and then computed the correlation between the two results for a "correlation-of-correlations": the result was a correlation of 0.93 for the Spearman's rho scores, and 0.91 for the Kendall's tau-b scores, indicating a very high level of agreement between the two.

### Index Construction

For a number of survey items, we constructed indexes that represented composites of different survey items that assess a similar concept, or domain. The goal in constructing these composite indexes was to improve the reliability of measures for certain constructs. Our indexes included the following:[83]

- *Task Cohesion Difference Index.* We constructed an index that measured the expected change in task cohesion in a hypothesized future unit with women based upon separate estimates of current unit task cohesion and expected future task cohesion in a unit with women.[84]
- *Social Cohesion Difference Indexes.* We constructed two indexes that measured the expected change in social cohesion in an hypothesized future unit with women based upon separate estimates of current unit social cohesion and expected future social cohesion in a unit with women.[85]
- *Unit Trust Difference Index.* We constructed an index that measured the expected change in unit trust in an hypothesized future unit with women based upon separate estimates of current and expected future unit trust.[86]
- *Leadership Availability Difference Index.* We constructed an index that measured the expected change in the availability of leaders to resolve conflicts between unit members in an hypothesized future unit with women based upon separate estimates of current and expected future unit trust.[87]
- *Capabilities Index.* We constructed an index of respondents' expectations as to whether women had the physical strength and stamina, mental toughness, and overall ability to serve effectively in their specialties.[88]
- *An Index of Extreme Negative Responses.* We constructed an index of extreme negative responses by counting the number of times each respondent chose the most extreme negative response out of eight questions that asked them to assess an hypothesized future unit that included women.[89]

As we discuss later, along with other variables from our survey, we assessed the importance of these various difference indexes and other scores in our multivariate statistical modeling to identify the key drivers of support and opposition for opening SOF specialties to women (Q20).

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[83] Details on the construction of these indexes, and their associated Cronbach alpha scores, which measure the internal consistency of items combined into an index, are provided in Appendix E (Szayna et al, 2015).

[84] The index was constructed from Q13, Q17, Q28, and Q33.

[85] The index was constructed from Q14, Q18, Q29, and Q34.

[86] The index was constructed from Q15, Q16, Q31, and Q32.

[87] The index was constructed from Q19 and Q35.

[88] The index was constructed from Q23, Q24, and Q25.

[89] The index was constructed from Q28, Q29, Q30, Q31, Q32, Q33, Q34, and Q35.

## *Approach to Open-Ended Questions*

We also analyzed responses to the four open-ended questions from a number of different perspectives, including qualitative content analysis, automated linguistic analysis, and automated concordance analysis. Each of these approaches relied upon counting words, concepts, and themes in the open-ended responses.[90]

### Qualitative Content Analysis

Our first approach was to conduct a qualitative content analysis of the open-ended questions. This involved identifying an initial set of key themes of policy interest, reviewing a sample of responses to the open-ended questions to refine our understanding of themes present in the responses, development of a codebook and formal coding rules, and conduct of a detailed qualitative content analysis of a 10 percent random sample of responses to the open-ended questions by researchers who had been trained on the coding rules, and who had achieved sufficiently high inter-coder reliability scores (see Appendix M).

### Quantitative Analyses

We had a high response rate on the open-ended questions, and recognized that coding only a 10 percent sample might leave important gaps in our understanding of the responses to these questions. Accordingly, we supplemented the qualitative content analysis coding effort with two additional computationally-based quantitative analytic efforts that were less resource-intensive. These approaches were the following:

- *Automated Linguistic Analyses.* First, we conducted two parallel analyses of all of the open-ended responses using two different automated linguistic analysis tools (called Docuscope and Linguistic Inquiry and Word Count, or LIWC). These tools have been developed by scholars to assess authorship, sentiment, and other features of language, and can provide insights into a speaker's stance, intent, and tone by tabulating and aggregating words according to taxonomies that associate specific words with specific concepts, e.g., agreement, disagreement, sadness, anger, resignation (see Appendix N and Appendix O for more detail);
- *Automated Concordance Analyses.* Second, we used an automated concordance analysis tool to conduct a set of parallel analyses that focused on understanding the relative prevalence of specific words and phrases in responses to the open-ended questions.[91] The tool enabled both raw word counts, as well as Key Word In Context (KWIC) output that

[90] To provide an overview of the content included in the four open-ended questions, we also created a word-cloud visualization, which we present in Appendix M. The word cloud echoes many of the key findings of the automated linguistic and content analyses, and highlights the high frequency of the use of "standard(s)" in responses to the open-ended questions.

[91] The tool is called antconc, and is available as freeware at http://www.laurenceanthony.net/antconc_index.html, as of October 2014.

reported the language that preceded and followed specified terms.[92] We conducted computer-based concordance analyses of the open-ended responses to identify the frequency of usage of key words and terms such as "standards" and "no benefits."

As will be seen, these various lines of analytic effort generally pointed to convergent findings, while each highlighted some interesting nuances in the survey results.

## Main Findings

As described above, the survey addressed nine key policy questions. In this section, we present the main findings for each policy question.

### *1. Do special operators generally favor or oppose policies to open their specialties and units to women?*

The survey asked respondents two questions about opening their specialties and units to women: "Do you favor or oppose...opening your specialty to women?" (Q20), and "Do you favor or oppose...opening your unit to women?" (Q21). As Figure 5.1 shows, about 85 percent of respondents opposed opening their specialties to women, with three out of four strongly opposed, while about seven in ten opposed opening their units to women, with nearly six in ten strongly opposed.

As the cross-tabulation in Table 5.2 shows, responses to these two questions were strongly correlated: 71.3 percent of the cases in the weighted sample gave the same response on both questions. The Somer's D measure—which measures the association between two ordinal variables on a -1 to +1 scale, with +1 indicating a perfect positive relationship—was 0.645.[93]

As we discuss later, the lower levels of opposition to opening units to women is consistent with what appears to be a relatively common belief that women could make valuable contributions to SOF missions without being members of the respondent's specialty. This can be accomplished, for example, by attaching women in other specialties or units to existing SOF units to conduct specific missions.

---

[92] This approach revealed, for example, that the term "standards" was the most prominently mentioned term in open-ended responses after "SOF" and "women," and that when discussing "benefits," most respondents said that they saw "no benefits," "none," or similar formulations.

[93] The Spearman's rho measure of association for the unweighted sample was 0.579, and Kendall's tau-b was 0.540; neither statistic is suitable for use with weighted survey data, so we employ Somers' D. For more on Somers' D, see Newson, 2006.

**Figure 5.1. Support and Opposition to Opening Specialties and Units to Women**

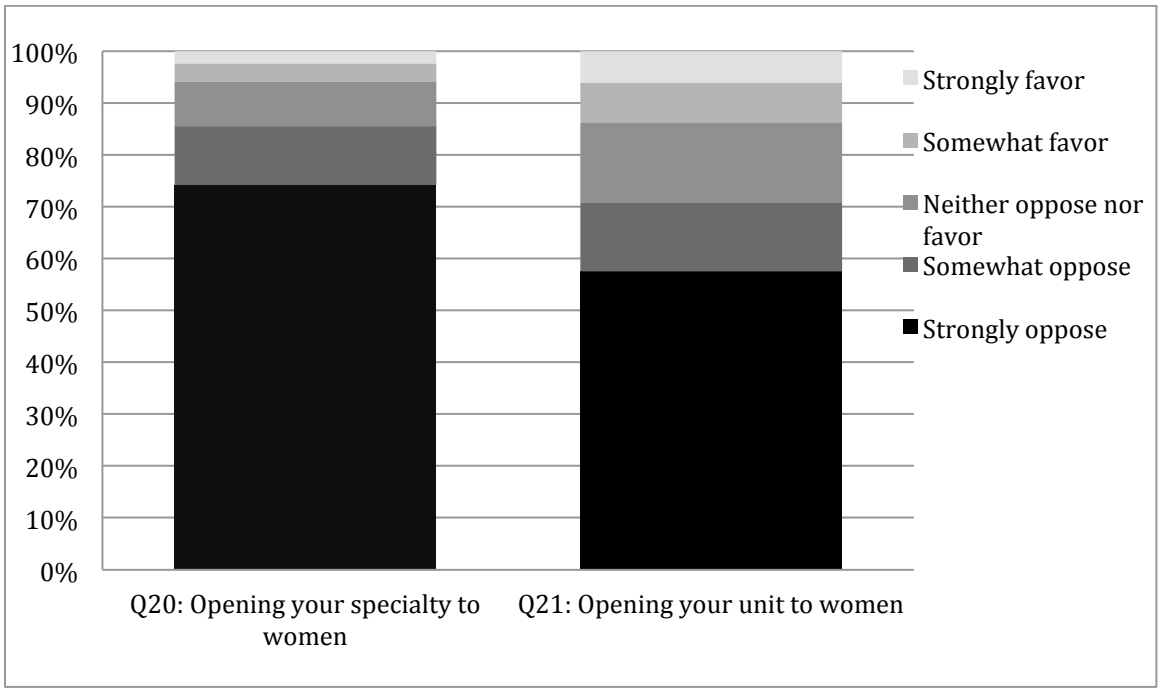


**Table 5.2. Cross-Tabulation of Q20 (Support for Opening Specialties) and Q21 (Opening Units) (Percent)**

| | ---Response to Q21 (Opening Units)--- | | | | | |
|---|---|---|---|---|---|---|
| **Response to Q20 (Opening Specialties)** | **Strongly Oppose** | **Somewhat Oppose** | **Neither Oppose nor Favor** | **Somewhat Favor** | **Strongly Favor** | **Total** |
| Strongly Oppose | 54.9 | 6.6 | 7.5 | 2.9 | 2.3 | 74.3 |
| Somewhat Oppose | 1.6 | 5.8 | 1.8 | 1.3 | 0.8 | 11.3 |
| Neither Oppose nor Favor | 0.7 | 0.7 | 5.8 | 0.9 | 0.3 | 8.5 |
| Somewhat Favor | 0.2 | 0.2 | 0.3 | 2.4 | 0.6 | 3.6 |
| Strongly Favor | 0.0 | 0.0 | 0.0 | 0.1 | 2.1 | 2.3 |
| Total | 57.6 | 13.3 | 15.5 | 7.7 | 6.0 | 100.0 |

NOTE: Reweighted sample. Percentages may not sum to total due to rounding.

Analysis of responses to the four open-ended questions using the Docuscope and LIWC automated linguistic analysis tools also revealed strongly negative views toward opening SOF specialties (see Figure 5.2).[94]

**Figure 5.2 Main Themes from Automated Linguistic Analyses of Open-Ended Responses**

| Docuscope Results | LIWC Results |
| --- | --- |
| • **Respondents express unhappiness through high levels of negative emotional language**<br>• **They object strongly, using high levels of oppositional language, and if/then reasoning to project negative outcomes of women in SOF**<br>• **They use high levels of intensifiers and insistent language to buttress opinions, arguments**<br>• **They emphasize the social values and goods they think are at risk, AND possible benefits**<br>• **They emphasize social connectedness in their responses, suggesting high levels of identification with their in-group** | • **Respondents emphasize achievement and professionalism in their responses**<br>• **They use language suggesting anger, negative emotions, anxiety, sadness**<br>• **High levels of negation words, low levels of agreement words**<br>• **They raise challenges to actions under consideration, and project future outcomes they expect to result**<br>• **High levels of prescriptive (could/ should/would) and future tense words** |

As described in the figure, the language used by respondents in these open-ended questions suggested strongly negative views toward and concerns about the policy change, while also emphasizing values such as achievement, professionalism, and team cohesion; this sort of language strongly suggests worries about the impact of the policy change on their units. The language used in responses to open-ended questions suggests that opposition to women serving in their specialties and units is deep-seated, intense, and somewhat emotional. The following are a few examples of comments from the survey.

[94] The Docuscope and Linguistic Inquiry Word Count (LIWC) systems are automated tools that enable analysts to compare a set of documents (or, in this case, open-ended survey responses) to a standard corpus of English-language documents to identify ways that these documents different systematically from the standard corpus. Q1 asked respondents to identify the greatest benefit of opening specialties to women; Q2 asked respondents about their greatest concern; Q3 asked what actions should be taken to address their greatest concern; and Q39 asked if they had any other thoughts on the issue of opening specialties to women. Appendixes O and P provide more detailed descriptions of these tools, as well as the details of our analyses of open-ended responses using Docuscope and LIWC (Szayna et al, 2015).

The following respondents' comments on the potential benefits of opening SOF specialties to women were selected to illustrate the typical sorts of comments that were offered:

> There will be no benefits.
>
> Absolutely nothing, it will detract from SOF effectiveness.
>
> Women should be SOF operators, but we need to recognize that women have unique skill sets that men do not. When we ask the question of whether or not SOF specialties should be open to women, we should look at the strengths of women & use those towards certain missions instead of opening all career fields to women. For instance, women would be amazing unconventional operators & would fill gaps where men are lacking. On the contrary, most women are not physiologically built to walk 30 miles w/ 80 lbs & then conduct target recon for 5 days. There are exceptions, but we should look at a more dynamic approach of identifying men & women' strengths, & then match those strengths to missions in order to grow our SOF portfolio in a manner that promotes the natural & learned strengths of operators to the missions that they are best suited. This is great in theory & implementation would be hard, but SOF would have a more dynamic operator force whose strengths are aligned with specific missions.
>
> American women are more widely accepted on the Global stage, where generally American males are categorized or associated with the general hatred for the US felt by most of the world. Therefore, the only real benefit gained, would be to covert or sensitive operations where having women attached to a team or unit would give deniability to the men there. American males are looked at hard when entering countries abroad, where women by themselves aren't or couples would not be looked at as such.

And the following are some of the typical concerns that were expressed about opening SOF specialties:

> Reduction in physical standards considered pre-requisites for entry into the career field, and the correlated changes to small unit dynamics that such changes might bring.
>
> Lowering or changing the standards for SOF leading to not being as effective on the battlefield and even costing lives.
>
> My greatest concern is that there will be a severe lack of truly qualified women. This could cause a marked decrease in the physical standards so that women are represented in more significant numbers. Doing this would degrade the cohesion and trust that makes special operations units as capable as they are, and compromise the elite *esprit de corps*.
>
> Our greatest concern is that the DoD &/or Congress will force SOCOM to implement policy that does not align w/ our SOF truths. We do not want SOF psychical, intellectual, & psychological standards to lower in order to appease public outcry for women in SOF. We want to fight besides women that meet the standard, & it must be one standard" for men & women. If there is a separate standard for women, they will never be accepted as operators. If we lower the standard to accommodate women, they will never be accepted as operators.

### *2. How important to special operators is the issue of integrating women into SOF?*

The high response rate to the survey (50.1 percent)[95], and the completeness of item responses for survey respondents suggest that both our target population and our respondents considered the issue of opening SOF specialties to women to be a very important one that was worthy of the time necessary to take the survey.[96]

In addition, research has shown that the amount of attention an individual pays to news and other information, and the amount of thinking an individual has given to an issue are associated with perceptions of issue importance.[97] Accordingly, we asked two questions to assess the importance to respondents of the issue of women in SOF: "How much have you...paid attention to news and other information about opening SOF specialties to women?" (Q9), and "How much have you...thought about the issue of opening SOF specialties to women?" (Q10).

As Figure 5.4 shows, a little over half of our respondents indicated that they had paid "quite a lot" or "a great deal" of attention to news and information on the issue, while nearly two out of three indicated that they had thought "quite a lot" or "a great deal" about the issue. As will be discussed later in this chapter, the amount of thought respondents have given the issue makes a small but statistically significant contribution to predicting support or opposition to opening SOF specialties to women.

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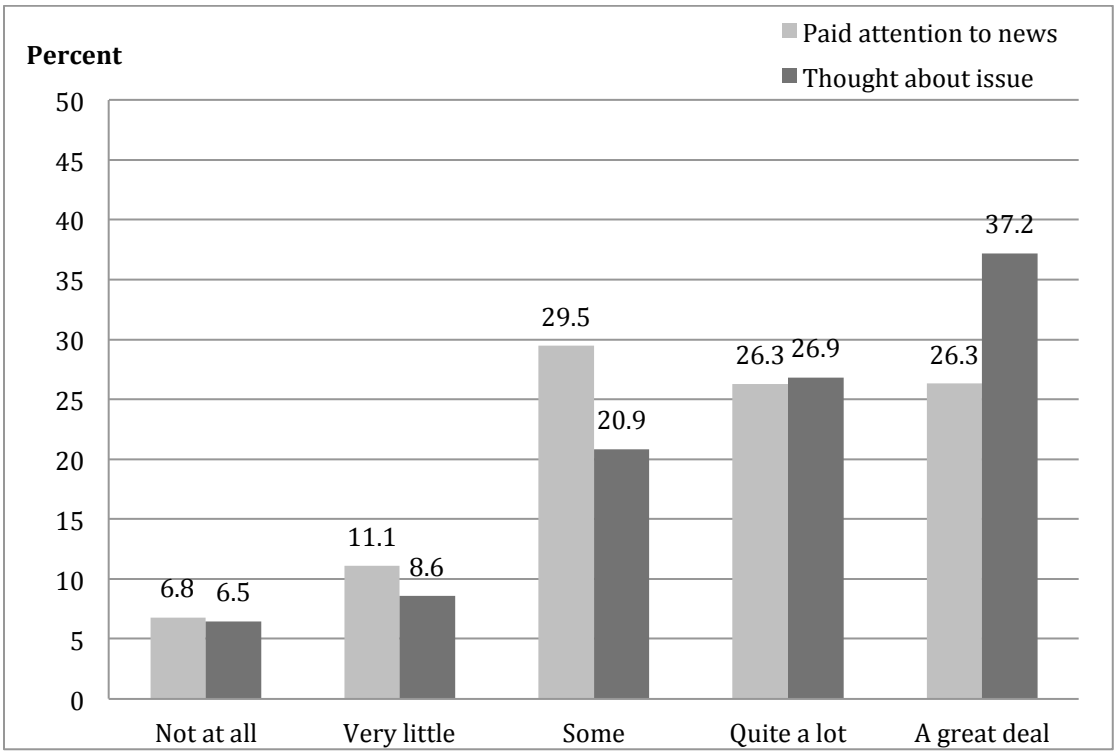
[95] DMDC reported that from 2008–2010, the response rates for their online surveys have ranged from 29 percent to 32 percent for active-duty personnel (DoD, 2010, p. 37).

[96] On average, 97 percent responded to the first three open-ended questions, nearly 93 percent completed the open-ended questions, and the average respondent answering the open-ended questions gave responses of more than 20 words. The last open-ended question (Q39) had the lowest response rate: only about 74 percent of our respondents responded to this question.

[97] On issue importance, see Krosnick et al., 1993; Fournier et al., 2003.

**Figure 5.3. Two Measures of the Importance of the Women In SOF Issue**



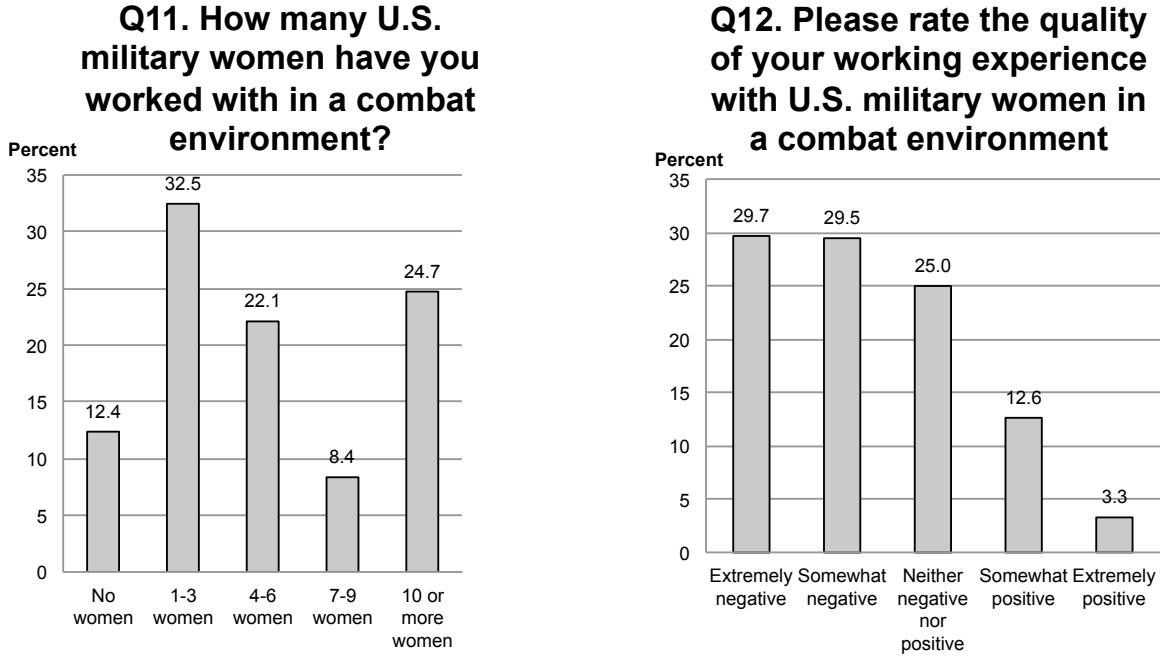

### *3. What experience do special operators have working with military women?*

We asked two questions about the quantity and quality of experience respondents had had working with U.S. military women in a combat environment: "With how many U.S. military women have you worked in a combat environment?" (Q11), and "Please rate the quality of your working experience with U.S. military women in a combat environment" (Q12).

As Figure 5.5 shows, nearly nine out of ten respondents indicated that they had worked with at least some U.S. military women in a combat environment and, of these, about six in ten indicated that the quality of their experience working with women in a combat environment had been somewhat or extremely negative.[98] As we describe later, our multivariate analyses revealed that respondents' quality of experience working with women is an important predictor of support or opposition for opening SOF specialties, and those who had a negative experience working with women in a combat environment are much more negative in a range of other views.

[98] The focus groups revealed that many SOF operators felt that U.S. military women they had worked with downrange had not had the same high levels of training they had had, and they lacked the same discipline. The survey did not, however, enable us to distinguish between those whose negative judgments were based solely upon unfavorable past experiences working with military women, and those for whom other potential factors (e.g., latent sexism) might have influenced their judgments.

**Figure 5.4. Experience Working With U.S. Military Women In A Combat Environment**

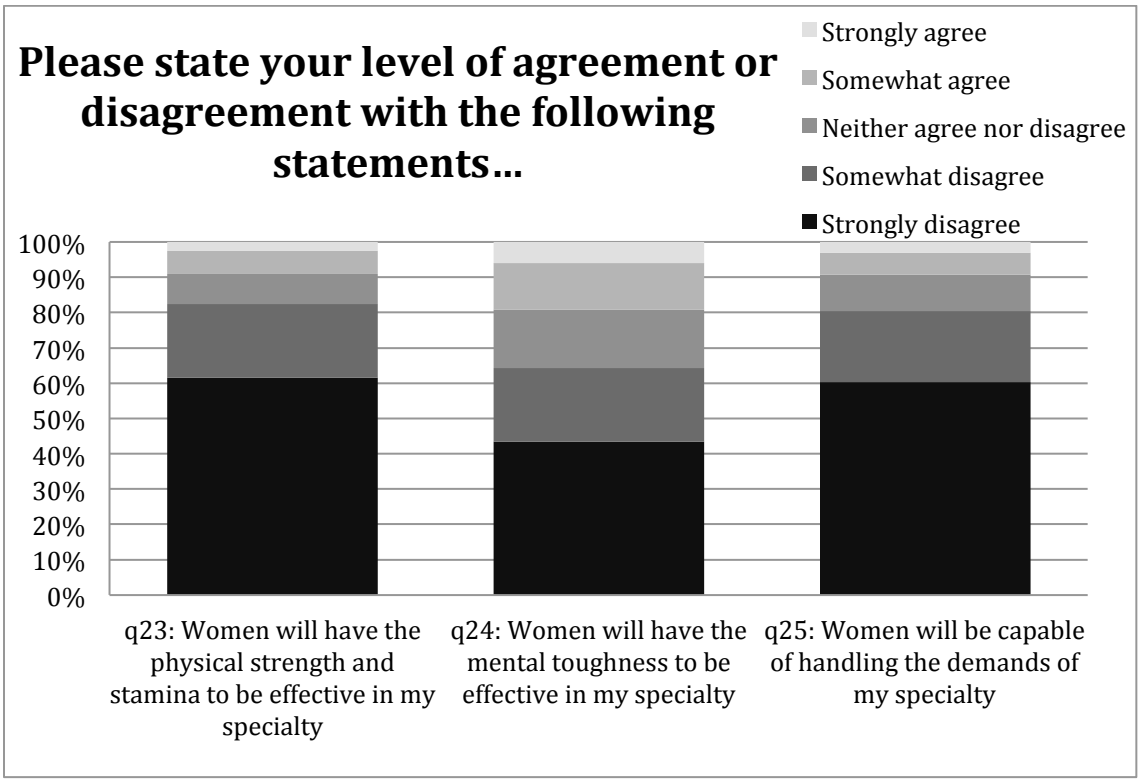



*4. What pre-existing attitudes do special operators have regarding women who may be integrated into their specialties?*

Following a preamble that read ""We would now like to ask you several questions about opening SOF specialties to women. By 'women,' we mean U.S. military women who will have passed the admission and qualification standards for your specialty," the survey asked respondents three questions about their estimates of women's capabilities, asking about their level of agreement or disagreement with the following statements: "Women will have the physical strength and stamina to be effective in my specialty" (Q23); "Women will have the mental strength toughness to be effective in my specialty" (Q24); and "Women will be capable of handling the demand of my specialty" (Q25) (see Figure 5.6).

As shown in the figure, about six in ten strongly disagreed that women would have the necessary physical strength and stamina or be capable of handling the demands of their specialty, while a little over four in ten strongly disagreed that women would have the necessary mental toughness for their specialty.

**Figure 5.5. Respondents' Assessments of Women's Capabilities For Their Specialties**




We computed the correlations between respondents' assessments of women's physical strength and stamina (Q23), their mental toughness (Q24), and their overall capabilities for handling the demands of SOF specialties (Q25). The results showed that Q23 (physical ability) was more highly correlated with Q25 (overall ability to do the job) than was Q24 (mental toughness).[99] These results suggested that both assessments were important, but that assessments of women's physical strength and stamina were somewhat more important in overall judgments about women's capabilities for handling the demands of SOF specialties than mental toughness.

As we describe later in the section on our multivariate analyses, respondents' beliefs about women's physical, mental, and overall capabilities were consistently the most important predictor of support or opposition to opening their specialties to women.[100]

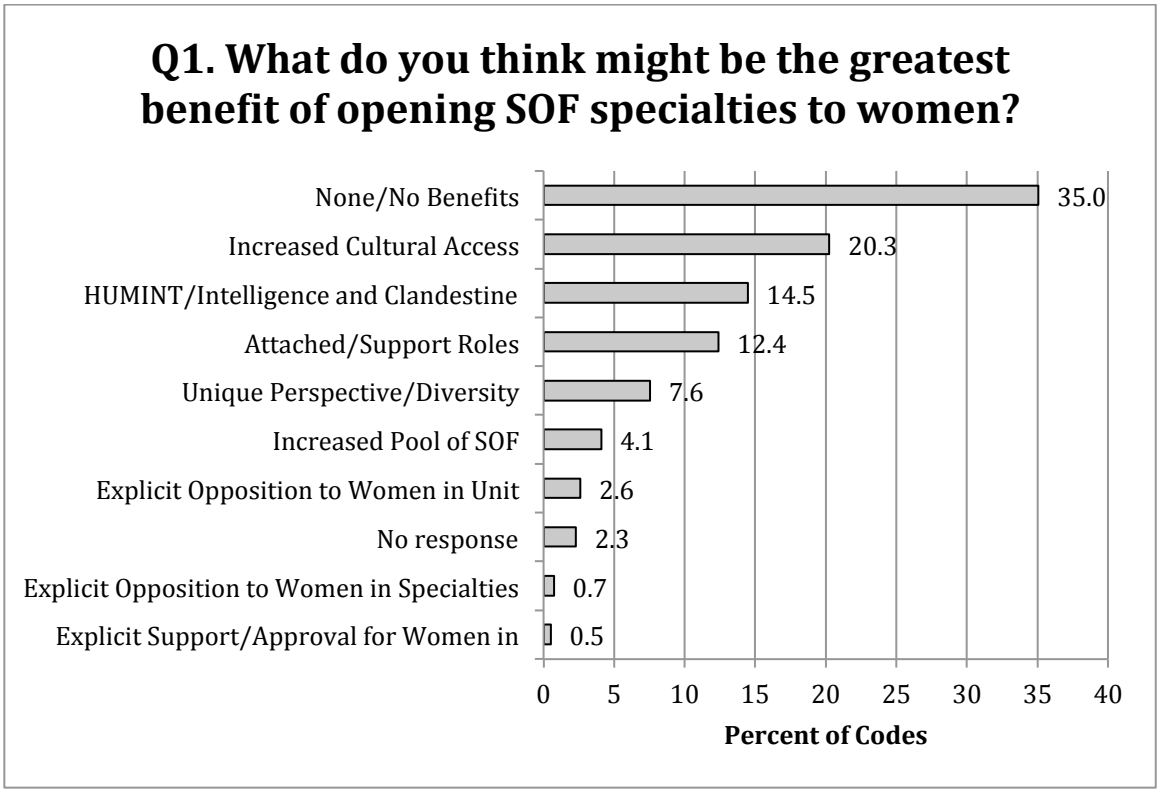
[99] The correlations between Q23 and Q25 for the unweighted sample were 0.7182 (Spearman's rho) and 0.6747 (Kendall's tau-b), whereas the correlations between Q24 and Q25 were 0.5490 and 0.4941, respectively.

[100] As was discussed above, Q23, Q24, and Q25 were combined into a single capabilities index for use in our multivariate modeling.

*5. What do special operators believe might be the greatest benefits that might result from opening USSOCOM positions to women?*

The first question in the survey was an open-ended question that asked respondents "What do you think might be the greatest benefit of opening SOF specialties to women?" Our content analyses of responses to this question are reported in Figure 5.7.[101]

**Figure 5.6. Themes Identified in Responses to Q1 (Greatest Benefit of Opening Specialties)**



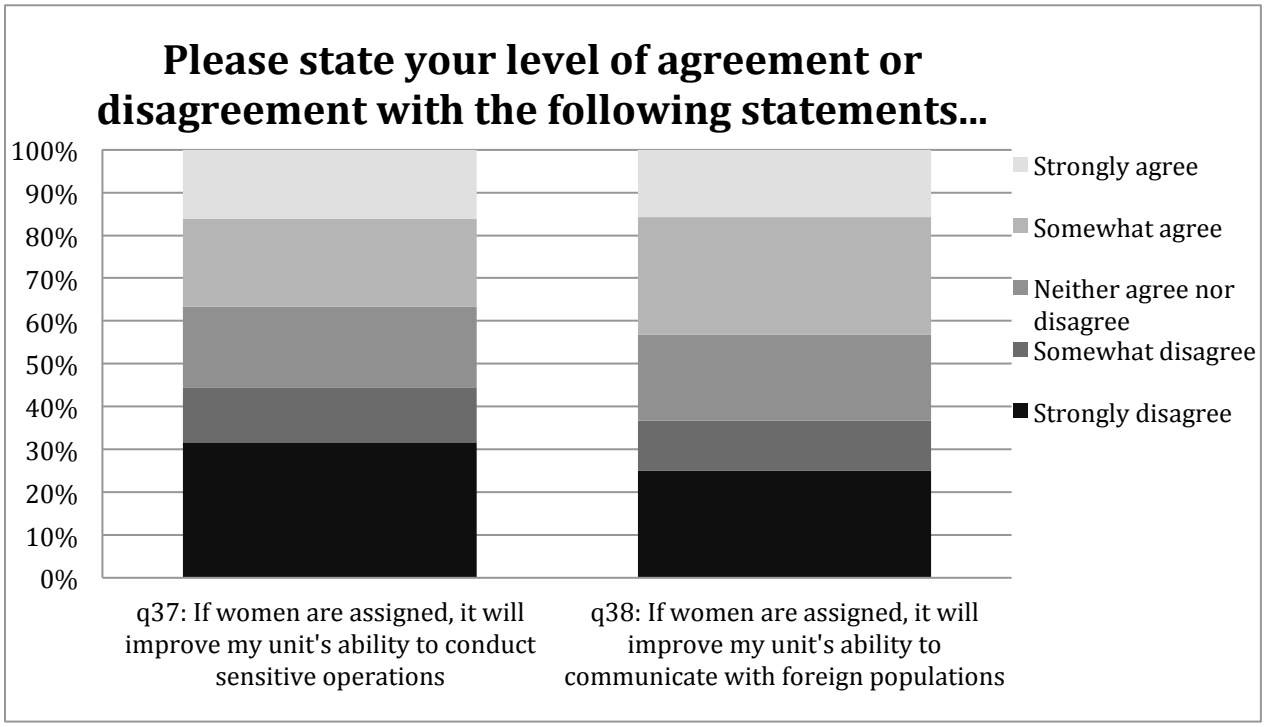

NOTE: Figure presents the percentages for the most frequently mentioned themes present in Q1 based upon a detailed content analysis. See Appendix N in Szayna et al, 2015 for details.

As shown in the figure, the most frequent theme in responses to this question, accounting for about a third of all coded responses, was that there were no benefits associated with opening SOF specialties to women. About one in five indicated that they thought having women in their specialties might increase cultural access, while smaller percentages identified as potential benefits intelligence collection and clandestine activities, potential benefits from attaching women in supporting roles to existing units, providing a unique or greater diversity of perspectives, or generally increasing the pool of available SOF.

[101] In developing the content analytic coding schemes for each of the open-ended questions, the study team coded a sample of responses using an initial set of key themes and issues that were of central interest to the study, and then modified the coding schemes to ensure that other, less well-anticipated themes that respondents mentioned would not be missed. For details on the codes in this figure see Appendix N (Szayna et al, 2015).

Two additional closed-ended questions asked respondents about their level of agreement or disagreement with the ideas that adding women to SOF units could improve their unit's ability to conduct sensitive operations or communicate with foreign populations (see Figure 5.8).

**Figure 5.7. Agreement/Disagreement on Potential Benefits of Women In SOF Units**

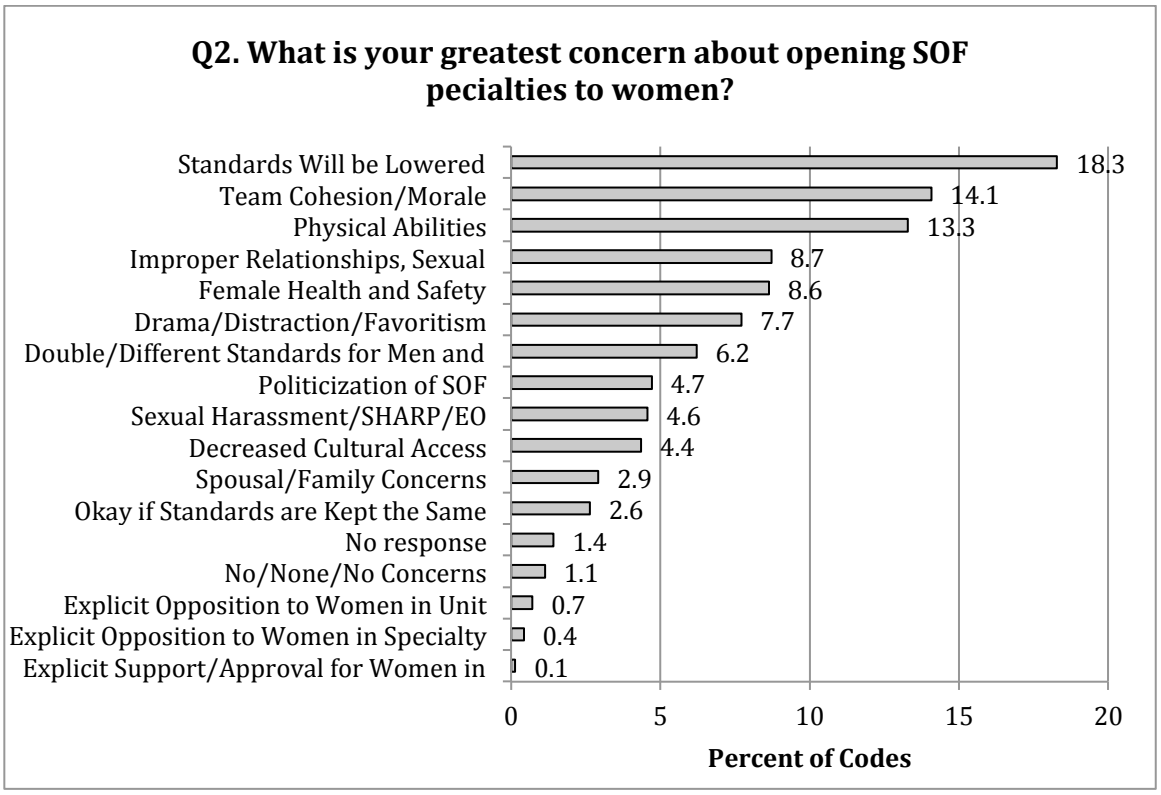



As shown in the figure, about a third of respondents agreed that having women in their units could improve its ability to conduct sensitive operations, and a little over four in ten thought it could improve their unit's ability to communicate with foreign populations.

### *6. What do special operators suggest might be the greatest challenges USSOCOM leaders will face in opening SOF positions to women?*

The survey asked respondents a number of questions on the potential challenges SOCOM leaders might face in opening SOF positions to women. Perhaps the most informative of these was the second question in the survey, an open-ended question that asked respondents: "What is your greatest concern about opening SOF specialties to women?" Figure 5.9 reports the results of our content analyses of the most prominent themes in responses to this question.

**Figure 5.8. Respondents' Greatest Concerns About Opening Specialties to Women**




NOTE: Figure presents the percentages for the most frequently mentioned themes present in Q2 based upon a detailed content analysis. See Appendix N for details.

The most prominent theme in responses to this question was the concern that performance standards would be lowered—essentially a statement reflecting lack of confidence in USSOCOM leadership's ability to successfully manage the issue of integrating women into closed SOF specialties—followed by concerns about SOF team cohesion and morale, and concerns that women who were assigned to respondents' specialties wouldn't possess the necessary physical abilities.[102] Fewer than 10 percent of respondents mentioned a variety of other concerns (e.g., fear of double standards for men and women, or politicization of SOF), or used the question to express some other sentiment (e.g., opposition to opening specialties to women).[103]

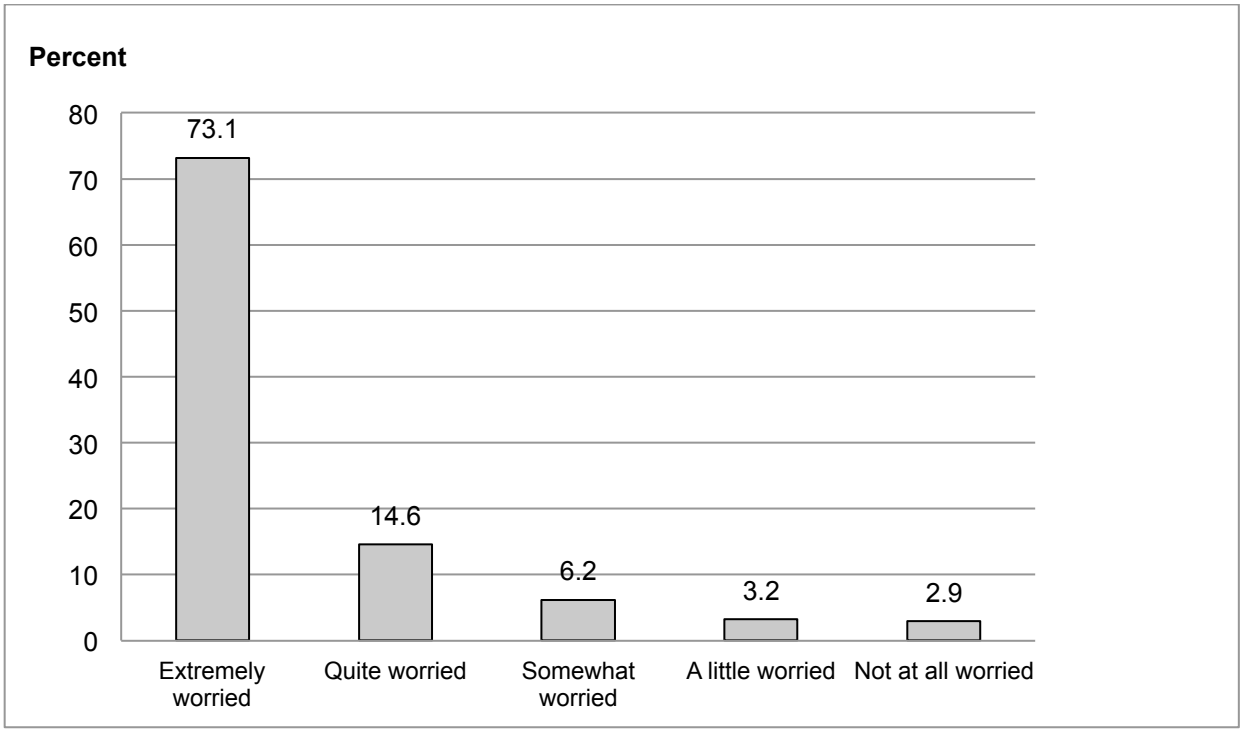
This concern about standards being lowered was echoed in responses to a question that directly asked about the subject: "How worried or not are you that the physical job standards of

[102] For more on these subjects, see the summary of results of our focus groups in Chapter Six.

[103] "Decreased cultural access" is a particularly interesting case. As described earlier, where some respondents thought that having women in their units might increase cultural access with local populations, some respondents, especially Special Forces, noted that the presence of women could create problems for training missions in societies that held women in lower standing than men.

your specialty will be reduced during the opening of SOF specialties to women?" (Q22). As shown in Figure 5.10, nearly three out of four respondents indicated that they were "extremely worried" about the prospect that physical job standards would be lowered, while only three percent said that they were not worried at all.

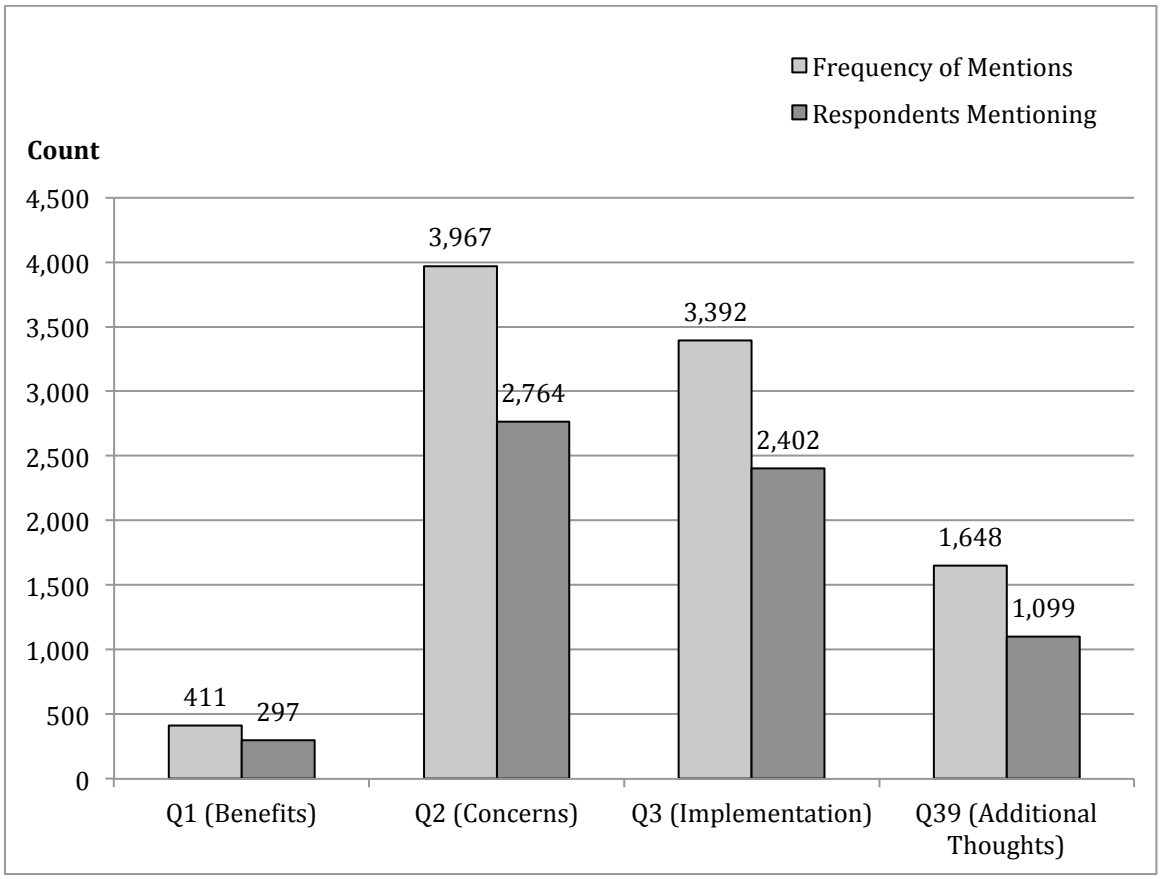
**Figure 5.9. Concern That Physical Job Standards Will Be Lowered**




Indeed, our automated concordance analysis revealed that the term "standards" was one of the most frequently mentioned terms in responses to the survey's four open-ended questions (see Figure 5.11).[104]

[104] Only the words "women" and "SOF" consistently exceeded references to "standards."

**Figure 5.10. Frequency of References to "Standards" in Responses to Open-Ended Questions**




NOTE: Figure presents the number of times the word "standards" was mentioned, and the number of respondents that mentioned "standards," in responses to four open-ended survey questions.

As shown in the figure, there were over 400 mentions of "standards" by nearly 300 respondents in responses to Q1 (on the main benefit of opening specialties), about 4,000 references by more than 2,750 respondents in response to Q2 (on concerns), nearly 3,400 mentions by 2,400 respondents in response to Q3 (on implementation), and about 1,650 mentions by about 1,100 respondents in Q39 (the last question, asking the respondents if they had any other thoughts they wanted to share).[105] Put another way, over one-third of our respondents mentioned the term "standards" in their responses to open-ended questions.

As we describe in greater detail later in this chapter, respondents generally supported high (or even increased) performance standards based upon mission requirements, and warned against lowering standards, or having different standards for men and women.

Several other questions that were asked in the survey point to additional concerns on the part of respondents that pose potential challenges SOCOM leaders may face:

[105] We note that the mentions in response to Q1 had little to do with benefits, and appears to have been an early attempt by these respondents to signal their concern about the possible lowering of performance standards.

- *Order and Discipline.* Four in ten respondents indicated that they expected order and discipline in their unit to "greatly decrease" (Q26).
- *Treatment of SOF Women.* One in three respondents said they expected that women would be treated unfairly "frequently," or "all of the time" (Q27).
- *Acceptance of SOF Women.* Only about four in ten respondents appear to believe that men will accept women as equals if they pull their share of the load, while an equal number thought that they would not be accepted as equals even if they were able to do so (Q36). Put another way, many respondents appear to believe that women's performance will not be the sole determining factor in whether they are accepted.

### *7. What impacts do special operators expect on the following: unit performance, unit cohesion, unit trust, and leadership and personnel management?*

#### Unit Performance

As we described above, the survey results detail a variety of concerns among respondents that suggest the belief that SOF unit performance would decline if women were allowed into specialties that are currently closed. For example, as we noted earlier, 60-80 percent of respondents appear to believe that women lack the capabilities to be effective in respondents' specialties (Q23/Q24/Q25), and nearly three out of four indicated that they were "very worried" that the physical job standards for their specialty would be lowered, presumably to make it possible for women to qualify (Q22). More than 90 percent of respondents indicated that having the same performance standards for men and women would be "extremely important" in successfully integrating women into SOF (Q4).

Although respondents were divided on whether they believed that having women assigned to their unit would improve their unit's ability to conduct sensitive, low-profile operations (Q37), or communicate with foreign populations (Q38), some respondents detailed possible benefits associated with attaching women to their units to conduct specialized intelligence, civil affairs, military information support operations (MISO), or other supporting operations.

Taken together, the overall mosaic of these results suggests concerns that performance standards would be lowered and unit performance would decline if women entered specialties that are currently closed, while making some allowances for the possibility that the participation of women might improve unit performance in other specialties and roles.

#### Unit Cohesion

Our indexes of task cohesion and social cohesion suggest that about four out of five respondents expect that unit cohesion would decline if women were assigned to their unit:[106] 80

[106] We computed difference scores by subtracting the current assessment of the respondent's unit on a dimension (e.g., task cohesion, social cohesion) from the respondent's assessment of the unit in a hypothesized future in which women were members of the unit.

percent appear to expect a decline in task cohesion (Q13/Q28 and Q17/Q33), and 83 percent appear to expect a decline in social cohesion (Q14/Q29 and Q18/Q34).

#### Unit Trust

Similarly, our indexes of trust suggested that about three out of four respondents appear to expect a decline in the level of trust among members of their unit (Q15/Q30 and Q16/Q31) if women are assigned to their specialties.

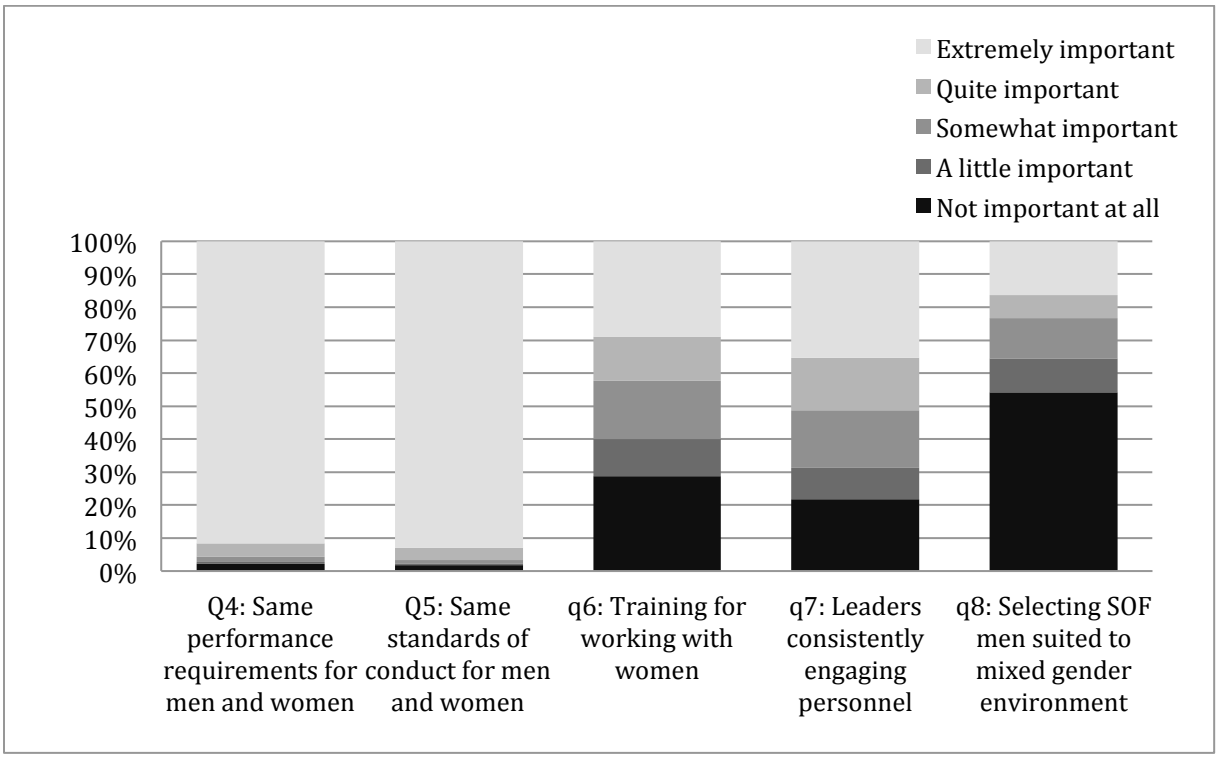
#### Unit Leadership & Personnel Management

In a similar vein, our index of leadership availability to manage personnel conflicts suggests that about two out of three respondents expect that it will be more difficult to go to unit leaders when they have problems or concerns regarding conflicts between members of unit who are women (Q19/Q35) than is the case in their current, all-male unit. In addition, nearly four in ten expect adverse impacts on unit order and discipline (Q26).

### *8. What implementation actions do special operators believe USSOCOM leaders should take to foster more beneficial outcomes, and to address key challenges?*

The survey posed a number of closed-ended questions that asked respondents to rate the importance of various options in successfully implementing the policy of potentially integrating women into SOF. The basic question asked was: “How important would each of the following be in successfully integrating women into SOF?” Figure 5.12 provides the results of these questions.

**Figure 5.11. Importance of Different Policy Actions to Successful Integration of Women Into SOF**

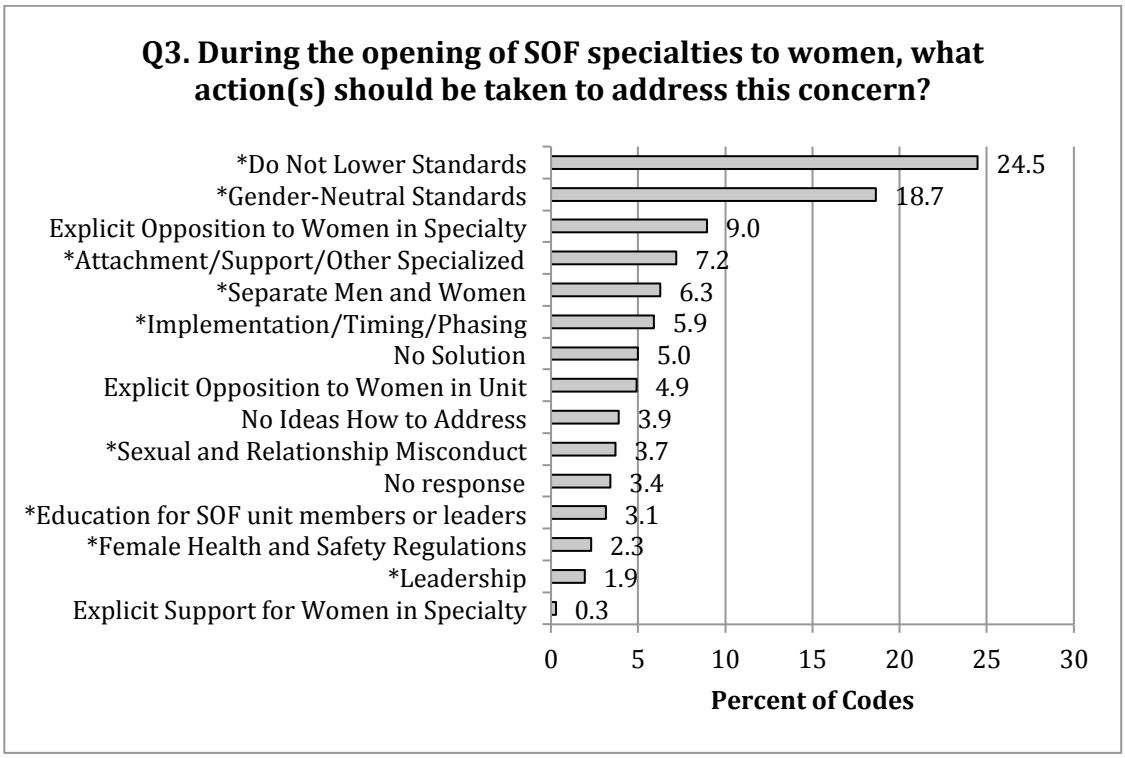



As shown in the figure, two options—maintaining the same performance requirements and standards of conduct for men and women—received the most support: more than 90 percent of respondents indicated that they thought that these policy options would be "extremely important" to the successful integration of women into SOF. Respondents viewed the other options, including "Leaders consistently engaging personnel," "Training for working with women," and "Selecting SOF men suited to a mixed gender environment" to be far less important to the successful integration of women into SOF.[107]

Suggested implementation actions also came up in our open-ended questions. For example, one of our open-ended questions (Q3) asked: "During the opening of SOF specialties to women, what action(s) should be taken to address [your] concern?" Figure 5.13 lists the most prominent themes from our content analyses of responses to this question.

[107] Our focus groups revealed strong opposition to the latter two options.

**Figure 5.12. Suggested Implementation Actions for SOF Opening Specialties to Women**

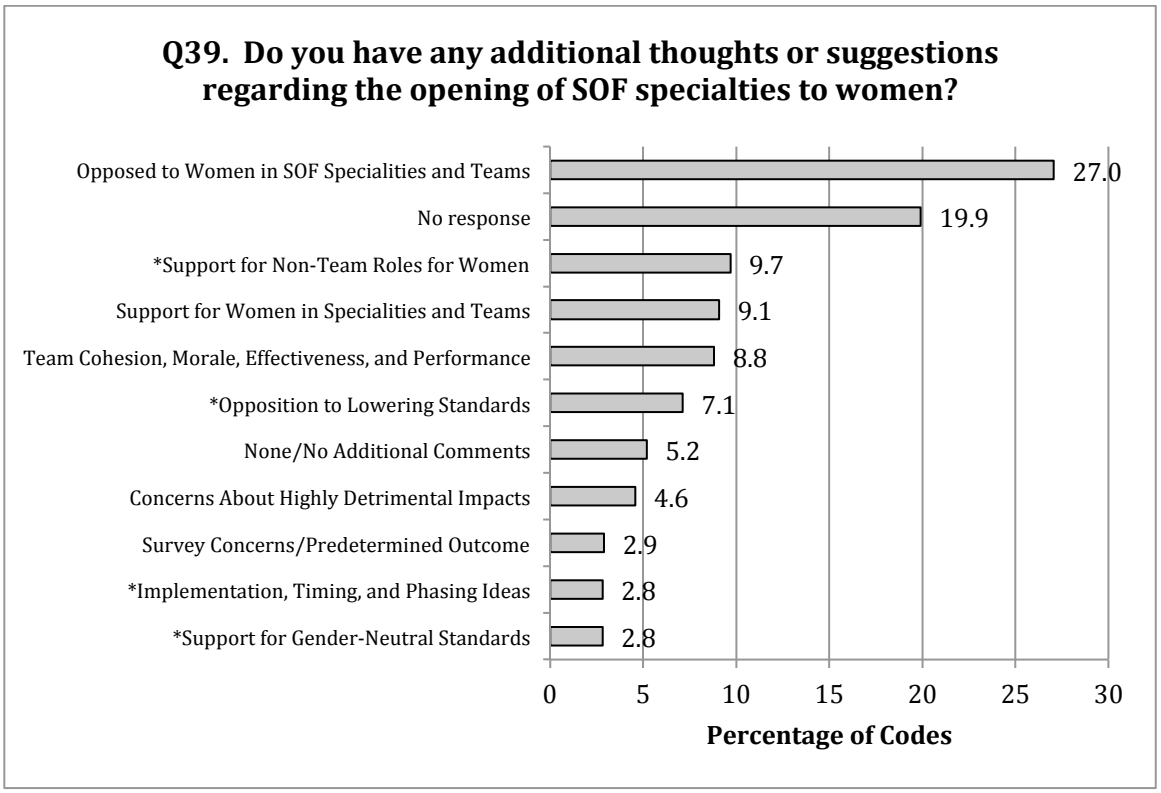



NOTE: Figure presents the percentages for the most frequently mentioned themes present in Q3 based upon a detailed content analysis. See Appendix N for details.

As the figure shows, the most frequently mentioned implementation actions that were suggested to address respondents' chief concerns about opening SOF specialties (denoted with an asterisk) were to refrain from lowering standards, followed by expressions of support for common performance standards that would apply to both men and women. A large number of other ideas (including attaching women in other specialties to respondents' units for specific missions, separating men and women, and taking a phased approach to implementing the opening of specialties to women), were suggested by smaller numbers of respondents. In addition, the question elicited a range of responses that had little to do with specific implementation ideas.

Respondents also suggested a number of implementation actions in their responses to the last question in the survey (Q39), which asked: "Do you have any additional thoughts or suggestions regarding the opening of SOF specialties to women?" Figure 5.14 presents the most frequently mentioned themes in this question, with actual implementation options denoted by an asterisk. Again, many respondents addressed issues that had little to do with implementation of the policy to open SOF specialties to women.

**Figure 5.13. Suggested Implementation Actions for SOF Opening Specialties to Women**




NOTE: Figure presents the percentages for the most frequently mentioned themes present in Q39 based upon a detailed content analysis. See Appendix N for details.

As shown, the most frequent responses to this question were expressions of opposition to opening specialties and units to women. Of the responses that can be considered implementation actions, attaching women in different specialties to teams was the most frequently mentioned option, followed by not lowering standards, thoughts on the timing and phasing of implementation, and common gender-neutral standards.

## Implementation Ideas: Respondents In Their Own Words

Beyond the broad themes just described, responses to the four open-ended questions provided interesting nuances and detail regarding potential implementation actions. We next report respondents' suggestions related to the main topics that were mentioned in connection with implementation: performance standards, attaching women to SOF units, complete separation of men and women, education and training, timing and phasing, and leadership.

### *Performance Standards*

The following are illustrative of the suggestions that were made on the subject of performance standards:

- "Do not lower standards: operators accepted under lower standards will not be seen as equals";
- "Don't change standards";
- "Maintain or increase standards";
- "Standards are set for a mission-based reason, and must be gender-neutral"; and
- "Make current male standard the standard for everyone, or improve the current standards and set those for everyone".

*Attaching Women to Existing SOF Units*

A recurring theme in responses was the idea that women in different specialties could be attached to existing units to perform specialized functions and roles; this option seemed to be preferred to opening specialties to women. The following are illustrative of this line of thinking:

- "Women have roles in SOF, just not as SEALs, SWCCs, Rangers, Special Forces, MARSOC, AFSOC Special Tactics Team";
- "Women would be useful in support roles, or attached to existing units";
- "Have female elements trained in certain specialties that can be attached to units for specific missions"; and
- "Use women in environmental preparation, CA, MISO, low visibility, and intelligence gathering operations".

*Separation of Men and Women*

Another option that was offered suggested segregating men and women, illustrated by the following sorts of statements:

- "Completely separate men and women";
- "Place women on woman-only teams";
- "Give women their own set of standards";
- "Give women their own training pipeline"; and
- "Place those that meet standards on their own teams".

*Education and Training*

Respondents also spoke of education and training—of both men and women—as playing an important part in the integration of women into SOF. Illustrative ideas in this area included:

- "Clearly delineate the benefits of allowing women into SOF specialties, and disseminate this information to units";
- "Women should be educated on what SOF culture is like (make women fit SOF as it is, don't change SOF for women)";
- "Open/honest/realistic sexual harassment training and classes"; and
- "Education on how women's roles in teams will affect unit".

*Timing and Phasing*

Some respondents offered thought on the timing and phasing of implementation, including:

- "Gradually integrate women into SOF specialties in order to slow the systemic shock and evaluate SOF response"; and
- "Implement a trial phase or experiment where the effects of allowing a few select women in a unit can be studied".

*Leadership*

Finally, respondents identified actions that could be taken by leaders to smooth the implementation of the policy change:

- "Ensure leadership is well-prepared to handle all of the concerns expressed";
- "Bring in women leaders first, so that there is some establishment of leadership by women in SOF and they can address female needs";
- "Do not force unit leadership to accept official or unofficial quotas: Women should have to meet the same standards, which are mission based; Treat men and women — with respect to physical, appearance, training, and all other standards — the same"; and
- "Allow leadership to act without political pressure".

### *9. How do responses to the above questions vary by key sub-group (e.g., service, unit, specialty, grade)?*

Although there are some differences in attitude toward opening specialties by SOF element and rank group (see Figure 5.15), the differences pale in significance to the similarities. We first discuss the similarities, and then the differences.

#### Similarities Among Key Sub-Groups

We were interested in the extent to which different sub-groups (e.g., service, SOF element, specialty, rank group) gave similar answers to the questions in our survey. We accordingly computed correlation coefficients for all possible sub-group pairs (e.g., by Service, SOF element, specialty, and rank group) for all questions using the unweighted sample, and compared the median correlation coefficients. The median correlations for each sub-group on the *closed-ended questions* were all high:

- By Service: 0.90;
- By Unit: 0.90;
- By Specialty: 0.79; and
- By Rank Group: 0.90.

We conducted a similar set of analyses to assess similarities in responses to our *open-ended questions*. For the human content analyses, the median correlations in the prevalence of the various themes across sub-groups were as follows:

- By Service: 0.88;
- By Unit: 0.86; and
- By Rank Group: 0.88.

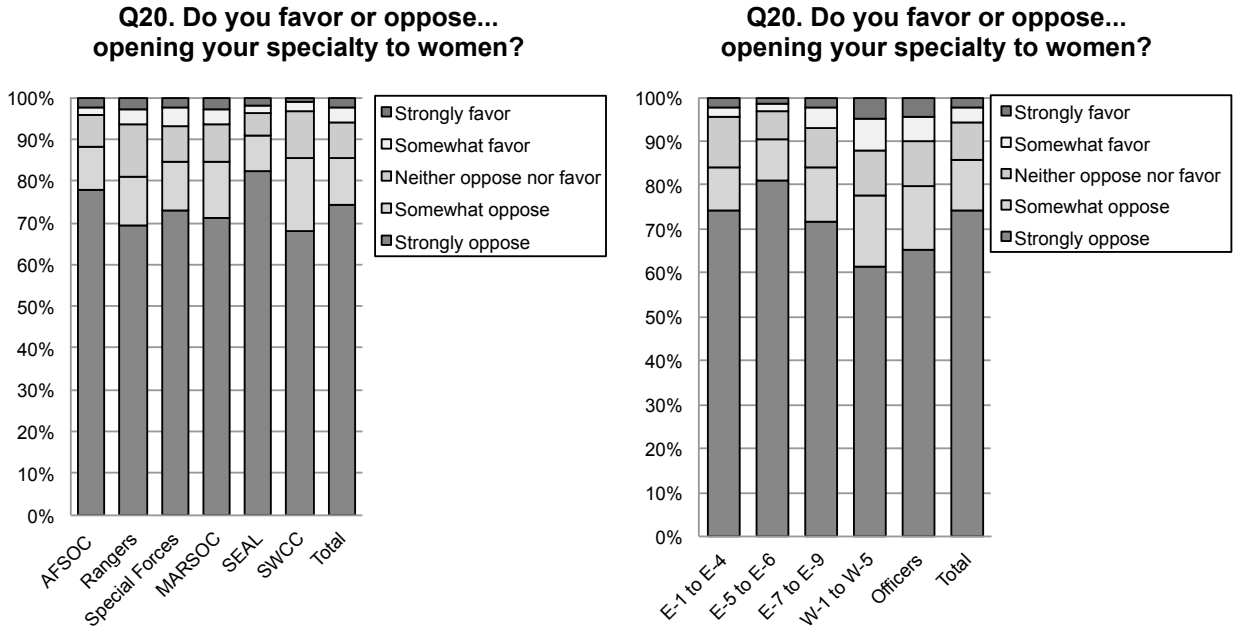
For our automated linguistic analyses, the median correlations by SOF element were 0.96 (LIWC) to 0.99 (Docuscope).

These high correlations across the closed- and open-ended questions are strong evidence that respondents in different sub-groups had very similar responses to the battery of questions in our survey: there appears to be more that binds respondents with different backgrounds than divides them.

### Differences Among Key Sub-Groups

As shown in Figure 5.15, across SOF elements and rank groups, opposition to opening specialties is consistently high. In all cases, about eight in ten or more oppose opening their SOF specialties to women, and about six in ten or more strongly oppose opening their specialties.[108]

**Figure 5.14. Support & Opposition to Opening SOF Specialties, by Element and Rank Group**




As shown in the figure on the left, however, the greatest opposition was among Navy SEALs, AFSOC Special Tactics Team members, and Army Special Forces. Moreover, the difference between SEALs (highest overall opposition to opening SOF specialties to women) and Rangers (lowest) is about 10 percent, while the difference in strong opposition (SEALs again highest,

[108] Moreover, our focus groups revealed strong opposition to opening SOF specialties to women across all specialties, and, although our survey results suggest lower levels of strong opposition, our Ranger and SWCC interlocutors were no less vocal in expressing their opposition than the SEALs, who registered the highest levels of strong opposition.

SWCCs lowest) is about 14 points.[109] And on the right, the difference between the highest (NCOs, E-5s and E-6s) and lowest rank group (Warrant Officers (WOs)) in terms of overall opposition is about 10 points, while the range of strong opposition is about 16 points (NCOs highest, WOs lowest).

As we discuss in the next section, membership in different SOF elements turned out to be the second most important set of predictors of support or opposition for opening specialties, after assessments of women's capabilities for SOF's demands.

## Identifying the Key Drivers of Support and Opposition

As we described earlier, our approach to identifying the key drivers of support and opposition for opening SOF specialties (Q20) to women began with a review of tables and figures reporting the marginal percentages associated with each response option for each question. The analyses also included bivariate cross-tabulations and correlation analyses, and multivariate statistical modeling. Having laid the groundwork for understanding how the individual survey items bear on our main findings, this section describes the results of our bivariate and multivariate analyses to identify the key drivers of support or opposition to opening SOF specialties.

To preview our findings, our multivariate statistical modeling suggests that the key drivers of support and opposition to opening SOF specialties to women are: respondents' beliefs about women's capabilities; SOF element; the quality of respondents' experience working with U.S. military women in a combat setting; the amount they say they have thought about the issue of women in SOF; and years of service. There also is some -- and somewhat mixed -- evidence that expectations regarding changes in task cohesion, social cohesion, unit trust, and the availability of leaders for conflict resolution in an hypothesized future unit that included women also may play a role in support or opposition to opening SOF specialties to women.

### *Bivariate Analyses*

We began our efforts to understand the key drivers of support and opposition for opening SOF specialties to women by exploring the simple relationship between Q20, which asked respondents to indicate their level of support or opposition for opening SOF specialties to women, and all of the other variables in our survey (see Table 5.3).

[109] We conducted paired comparisons between all SOF elements using the Kruskal-Wallis test, and found that the greatest number of statistically significant differences on the 35 ordinal questions in our survey were associated with the SEALs, on the one hand, and SWCCs, Special Forces, Rangers, and MARSOC operators, on the other. Put another way, SEALs were most unlike the other SOF elements in their responses to the full set of survey questions.

**Table 5.3. Bivariate Relationships Between Q20 (Support for Opening SOF Specialties) and Other Variables**

| Survey Question | Spearman's Rho | Kendall's Tau-b | Odds Ratio |
|---|---|---|---|
| Q4. Importance of same performance requirements | -0.142 | -0.135 | 0.815 |
| Q5. Importance of same standards of conduct | -0.070 | -0.066 | 0.967^ |
| Q6. Importance of providing education and training | 0.210 | 0.182 | 1.369 |
| Q7. Importance of leaders consistently engaging personnel | 0.166 | 0.145 | 1.328 |
| Q8. Importance of selecting men suited to mixed gender environment | 0.261 | 0.233 | 1.383 |
| Q9. How much paid attention to news and information | -0.138 | -0.121 | 0.799 |
| Q10. How much thought about issue | -0.167 | -0.146 | 0.792 |
| Q11. Number of military women worked with in combat environment | 0.028 | 0.024 | 1.052 |
| Q12. Quality of working experience working with military women | **0.322** | 0.280 | 1.879 |
| Q13. Current unit task cohesion: work together to accomplish mission | -0.126 | -0.120 | 0.582 |
| Q14. Current unit social cohesion: members are like a family | -0.175 | -0.165 | 0.581 |
| Q15. Current unit trust: level of trust among unit members | -0.159 | -0.151 | 0.552 |
| Q16. Current unit trust: respondent's level of trust for unit members | -0.154 | -0.146 | 0.565 |
| Q17. Current unit task cohesion: unit united in accomplishing mission | -0.104 | -0.099 | 0.579 |
| Q18. Current unit social cohesion: unit members socialize | -0.183 | -0.170 | 0.580 |
| Q19. Current unit leadership: can go to leaders for conflict resolution | -0.102 | -0.095 | 0.760 |
| Q21. Support/opposition to opening *unit* to women | **0.579** | **0.540** | **3.025** |
| Q22. How worried about reducing job standards | **-0.359** | **-0.333** | **0.500** |
| Q23. Women will have physical strength and stamina | **0.514** | **0.476** | **2.946** |
| Q24. Women will have mental toughness | **0.473** | **0.423** | **2.441** |
| Q25. Women will be capable of handling demands of specialty | **0.585** | **0.543** | **3.756** |
| Q26. Expected impact of women on unit order and discipline | **0.385** | **0.348** | **2.104** |
| Q27. Expected frequency women will be treated unfairly | -0.118 | -0.102 | 0.793 |
| Q28. Future unit task cohesion: work together to accomplish mission | 0.288 | 0.252 | 1.887 |
| Q29. Future unit social cohesion: members will be like a family | **0.344** | 0.299 | 1.950 |
| Q30. Future unit trust: expected trust among unit members | **0.339** | 0.294 | 1.929 |
| Q31. Future unit trust: expected trust for unit members | **0.317** | 0.276 | 1.922 |
| Q32. Future unit trust: expected trust for women unit members | **0.473** | **0.416** | **2.569** |
| Q33. Future unit task cohesion: men and women will be united | **0.372** | **0.322** | **2.101** |
| Q34. Future unit social cohesion: men and women will socialize | 0.237 | 0.205 | 1.529 |
| Q35. Future unit leadership: will be able to go to leaders | 0.286 | 0.247 | 1.640 |
| Q36. If they pull their share of the load, women will be accepted | **0.445** | **0.387** | **2.419** |
| Q37. Women in unit will improve ability for sensitive operations | **0.433** | **0.378** | **2.190** |
| Q38. Women in unit will improve ability to communicate | **0.412** | **0.359** | **2.248** |

NOTES: All correlations calculated using the unweighted sample data. * = Statistically significant at .05 level. All other correlation coefficients were statistically significant at the .001 level. Correlation coefficients **in bold** exceeded a nominal value of +0.3 or -0.3. Odds ratios are from ordered logit bivariate regressions with Q20 as the dependent variable. All log odds ratios calculated using the weighted sample data. ^ = Odds ratio not statistically significant. All other odds ratios statistically significant at the .001 level. Odds ratios **in bold** exceeded a nominal value of 2.0 (or less than 0.5), meaning that a one-unit change on the independent variable increased (or decreased) the odds ratio that the respondent would be in a higher category on the dependent variable by a factor of two or more.

As shown in the table, all of the correlations between Q20 and the other variables in our survey were statistically significant—all but one at the .001 level—although only a subset (**in bold** in the Table) exceeded a nominal value of +0.3 or -0.3.[110]

Q25, which asked respondents whether they agreed or disagreed with the statement that "Women will be capable of handling the demands of my specialty," had the highest correlations with Q20. The interpretation of the odds ratio is that a one-unit increase in Q25 increases the odds ratio of a corresponding increase in Q20 by a factor of 3.7.

The next highest correlations were with Q21, which asked about support for opening their units to women,[111] Q23, which asked whether respondents agreed with the statement that "Women will have the physical strength and stamina to be effective in my specialty", Q24, which asked respondents if they agreed with the statement "Women will have the mental toughness to be effective in my specialty," and Q32, which asked respondents to assess their expected level of trust for women in a future unit that included women.

Not surprisingly, support or opposition for opening SOF specialties is highly correlated with support or opposition for opening units, but as we noted earlier, there is much higher support for the latter option, which is reflected in the fact that the correlation is not substantially higher, e.g., on the order of 0.8 or 0.9.

Perhaps more interesting is the fact that the three questions asking respondents to assess U.S. military women's capabilities for SOF demands (Q23, Q24, Q25) are among the variables that are most highly correlated with support or opposition for opening specialties: the belief that U.S. military women will have the mix of physical strength and stamina, mental toughness, and overall capability for these positions is each closely associated with support, and the belief that they lack these capabilities is closely associated with opposition.[112] The high correlation between support or opposition for opening specialties, and respondents' expected level of trust for women in a hypothesized future unit that included women (Q32), further suggests that trust is at least in part built upon performance expectations.

### *Exploratory Factor Analysis*

To understand better the underlying structure of support or opposition to opening SOF specialties (Q20), we conducted exploratory factor analyses.[113] We included in our factor

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[110] In the social sciences, +/- 0.3 is a standard threshold for deciding whether a correlation coefficient is strong enough to be substantively meaningful. This is not the same thing as the statistical significance of a correlation coefficient, which indicates the probability that the correlation coefficient that large could have occurred by chance.

[111] As was noted earlier, the correlations between Q21 (support for opening SOF units to women) and the other variables in the survey were very similar to those for Q20.

[112] As described above, to improve the reliability of our measure, we combined these three items into an index that met standard levels for the alpha statistic.

[113] Factor analysis algorithms compute a correlation matrix and identify, based upon the correlations between included variables, the underlying dimensionality and latent structure of the data, and which variables are most

analyses all of the closed-ended questions in our survey, with the exception of our dependent variable (Q20), and Q21, which asked about support or opposition to opening units (as opposed to specialties) to women.[114]

These analyses revealed that the highest-loading variables in the first factor were related to assessments of women's capabilities, assessments of the potential impact of women on such factors as unit task cohesion and social cohesion, trust, and conflict management by leaders in a future SOF unit that included women, and the quality of experience respondents had had working with women in a combat environment.[115] The second factor was dominated by variables related to respondents' assessments of their current units. As will be seen, we accordingly included most of these variables in our multivariate statistical models.

### *Multivariate Statistical Analyses*

As noted at the beginning of this chapter, we also developed multivariate statistical models to further refine our understanding of which variables should be considered key drivers of support or opposition to opening SOF specialties to women (Q20).[116] Our multivariate analyses were guided both by theoretical considerations (e.g., about task cohesion, social cohesion, and trust), and practical considerations (e.g., the quality of respondents' working experiences with U.S. military women in a combat environment, the availability of leaders to resolve intra-unit conflict, and the desirability of comparisons between respondents' views of the current unit, and their expectations regarding what a future unit with women might be like).

All of our models had several features in common. First, the dependent variable across all models was Q20, the level of support or opposition to opening SOF specialties to women.[117] Second, all were ordered logit models that were designed to identify the contribution of each independent variable to a change in support or opposition to opening SOF specialties to women (Q20).[118] Third, all of our models relied upon weighted sample data, and used standardized

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closely associated with (or load most highly on) which underlying factors. We chose to use factor analysis because it controls for multicollinearity, i.e., correlations between variables.

[114] We also conducted factor analysis using our indexes, with generally similar results.

[115] The first factor in a factor analysis accounts for the largest proportion of variance, the second accounts for the next largest proportion, and so on.

[116] Multivariate models introduce statistical controls so that the marginal contributions to an outcome of individual variables can be understood.

[117] Put another way, we assumed that a respondent's position on the dependent variable, support or opposition to opening SOF specialties (Q20), was influenced or caused by his positions on the independent variables. We acknowledge, however, that it is entirely possible that respondents decided that they supported or opposed opening their specialties, and then aligned their other attitudes to be consistent with this position. This is commonly referred to as "attitude constraint." For classic papers on the subject, see Converse, 1964; Peffley and Hurwitz, 1985.

[118] Logit models estimate the probabilities that a change in an independent variable will result in a change in the dependent variable; the coefficients in ordered logit models are log odds ratios.

scales to improve comparability, wherever possible.[119] In all cases, we report both the Chi-square value and statistical significance from the Chi-square goodness-of-fit test that was used to test the overall fit of the models with the data, and the statistical significance of the regression coefficients, which was assessed on the basis of z-scores. We also report the Expected Percentage Correctly Predicted (EPCP), Expected Percentage Reduction in Error (EPRE), and Akaike Information Criterion (AIC) value.[120]

### Results

As described in Table 5.4, we explored a range of alternative specifications for our multivariate statistical models, and conducted sensitivity analyses, to better understand which variables are key drivers of a respondent's support or opposition for opening SOF specialties to women, and to ensure the robustness of our findings.[121]

As described in the table, our final models used various forms of our difference variables for task cohesion, social cohesion, unit trust, and availability of leaders for conflict resolution, as well as including years of service (computed from Q40); amount of thought given to the issue (Q10): currently married (from Q43); our capability index (computed from Q23/Q24/Q25); the quality of the respondent's past work experience with U.S. military women in a combat environment (Q12); and SOF element.[122]

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[119] All of the questions with multiple response options were standardized to a 5-point scale in which a value of one was at the negative end of the scale, and a value of five was at the positive end. The only variable that did not have a standardized 5-point scale was years of service.

[120] EPCP is a goodness-of-fit diagnostic that estimates the percentage of respondents whose responses on the dependent variable were correctly predicted, whereas EPRE estimates the percentage reduction in error compared to the modal response on the dependent variable. Finally, AIC is a diagnostic that relates to the efficiency or parsimony of the model. The larger the values for EPCP and EPRE, and the smaller the value for AIC, the better the model.

[121] We conducted a range of other multivariate analyses before focusing on the model forms in the table. We also conducted factor analyses, which revealed that the first two underlying factors were time-related, involving respondents' estimates of the current unit, and their estimates of a future unit that included women.

[122] We explored a range of alternative predictors before settling on these variables. One common feature of all of our models was that they were ordered logit models in which the dependent variable was the response on Q20, a ranked Likert item with a scale from 1 (strongly oppose) to 5 (strongly favor), and the independent variables were other ranked Likert items, scales and differences constructed from Likert items, or demographics, including controls for membership in different SOF elements. Coefficients are log-odds units that frequently are converted to marginal probabilities to facilitate understanding.

**Table 5.4. Comparison of Multivariate Models Predicting Support or Opposition to Opening Specialties (Q20)**

| Variable | Model 1 Difference Variables | Model 2 Separate Present & Future | Model 3 Difference Variables w/ Controls & Interactions |
|---|---|---|---|
| Capabilities Index (Q23/Q24/Q25) | 1.186** | 1.189** | 1.186** |
| Q12. Quality of working experience | 0.175** | 0.175** | 0.176** |
| Q10. How much thought about issue | -0.092** | -0.090** | -0.089** |
| Q40. Years of Service | 0.022** | 0.022** | 0.022** |
| Task Cohesion Difference Index | 0.282** | | 0.263 |
| Social Cohesion 1 Difference Index | 0.217** | | 0.752** |
| Social Cohesion 2 Difference Index | 0.117** | | -0.177 |
| Trust Difference Index | 0.180** | | 0.059 |
| Leadership Difference Index | 0.133** | | 0.156 |
| Task Cohesion Present Index | | -0.134 | 0.172 |
| Task Cohesion Future Index | | 0.313** | |
| Q14 – Social Cohesion 1 Present Index | | -0.184** | 0.040** |
| Q29 – Social Cohesion 1 Future Index | | 0.224** | |
| Q18 – Social Cohesion 2 Present Index | | -0.167** | -0.070 |
| Q34 – Social Cohesion 2 Future Index | | 0.096** | |
| Trust Present Index | | -0.336** | -0.183 |
| Trust Future Index | | 0.141** | |
| Leadership Present Index | | -0.116* | 0.023 |
| Leadership Future Index | | 0.137** | |
| Task Cohesion Index Interaction | | | 0.027 |
| Social Cohesion 1 Index Interaction | | | -0.113** |
| Social Cohesion 2 Index Interaction | | | 0.060 |
| Trust Index Interaction | | | 0.049 |
| Leadership Index Interaction | | | -0.005 |
| SOF Element (Compared to Army Rangers) | | | |
| AFSOC | -0.884** | -0.884** | -0.872** |
| SEAL | -0.858** | -0.851** | -0.850** |
| Special Forces | -0.522** | -0.526** | -0.526** |
| MARSOC | -0.273 | -0.256 | -0.259 |
| SWCC | -0.272* | -0.261 | -0.264 |
| Chi-square test of independence | 2058.5 | 2059.4 | 2076.6 |
| p-value for Chi-square test | 0.0000 | 0.0000 | 0.0000 |
| Expected Percent Correctly Predicted (EPCP) | 67.1 | 67.2 | 67.8 |
| Akaike Information Criterion (AIC) | 9164.1 | 9166.8 | 9167.6 |
| Expected Percent Reduction in Error (EPRE) | 25.1 | 25.1 | 25.2 |

NOTES: * = Statistically significant at .05 level; ** = Statistically significant at .01 level. To provide more reliable coefficients on the difference variables, Model 3 uses "Interaction" variables involving an interaction between the individual levels of the present estimate, and the individual levels of the difference variables, e.g., the individual levels of the Trust Present Index were interacted with the individual levels of the Trust Difference Index.

In all cases, the coefficients are log odds ratios, which are interpreted to mean the amount of change in the log of the odds of the dependent variable changing as a result of a one-unit change in the independent variable. In the present case, for example, a one-unit increase on the capabilities index is associated with an increase of nearly 1.19 in the log odds of a higher level on Q20, the level of support or opposition to opening SOF specialties to women), a result that is stable across all three of our multivariate statistical models.

The models were as follows:

- *Model 1: Difference Variables.* As was described earlier, we designed the survey to illuminate inter-temporal comparisons of task cohesion, social cohesion, trust, and the availability of leaders to resolve conflicts among members of the unit, asking respondents for assessments of their current unit on these dimensions, and of a future hypothesized unit that included SOF women. This first model used the differences between respondents' assessment of the future unit and those for the current unit (see Model 1, "Difference Variables," in Table 5.4).[123]
  - As shown in the table, most of the variables in this model achieved statistical significance at the .05 level or better; the exception was status as a MARSOC operator.
  - The variable with the largest coefficient was the capabilities index, the coefficient for which was 1.19: as described earlier, a one-point change in the capabilities index is associated with a 1.19 unit change in the log odds ratio of having a higher value on Q20.[124] Put another way, respondents' assessments of U.S. military women's capabilities appears to have been the dominant consideration in driving support or opposition for opening SOF specialties.
  - The next largest coefficients were generally for our SOF elements: AFSOC Special Tactics Teams (-.884) and Navy SEALs (-.858), and Army Special Forces (-.522) were more strongly disapproving of opening specialties than Army Rangers, MARSOC operators, or Navy SWCCs.
  - The diagnostics for the model also are good:
    - The p-value for the Chi-square goodness-of-fit test (0.0000) suggests that the probability of a model with this good a fit occurring by chance is less than one in 10 thousand.
    - The expected percent correctly predicted (EPCP) was 67 percent.
    - The expected percentage reduction in error (EPRE) for the model, which measures the reduction in prediction error relative to a naïve model that uses the modal value on the outcome variable, was nearly 25 percent, a fairly healthy reduction in error.
    - The Akaike Information Criterion (AIC) for the model, which is a diagnostic that can be used to compare alternative models that rewards parsimonious models that have a good fit to the truth, and punishes those that don't, was 9164.[125]

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[123] The current unit scores were subtracted from the future unit scores, such that a positive value indicated that the respondent seemed to be anticipating an improvement on that dimension, while a negative value indicated that the respondent expected deterioration.

[124] For a discussion of the interpretation of output from ordered logit models, see "Stata Annotated Output: Ordered Logistic Regression," at <http://www.ats.ucla.edu/stat/stata/output/stata_ologit_output.htm>, as of September 2014.

[125] According to Mazerolle (n.d.): "In itself, the value of the AIC for a given data set has no meaning. It becomes interesting when it is compared to the AIC of a series of models specified a priori, the model with the lowest AIC being the « best » model among all models specified for the data at hand."

Because difference scores can, in some cases, yield unreliable coefficients in multivariate statistical models, and to confirm the robustness of our findings, we also explored two additional alternative model specifications: (2) a model in which the difference indexes were dropped, and the present and future estimates entered simultaneously; and (3) a model that included the difference variables but also included controls and interaction terms to provide a more reliable basis for estimating the coefficients for the difference variables:

- *Model 2: Separate Present and Future.* In this model, our indexes for present and future task cohesion, social cohesion, unit trust, and leadership availability for conflict resolution entered simultaneously. This was not as satisfying a formulation as the earlier model, as the present and future estimates were not directly linked to one another.
  - As shown in the table, most of the variables that also were in Model 1 retained statistical significance in this model, and were of similar magnitude.
  - The coefficient for the capability index is again the largest of any in the model (1.19), and the value is very close to that in the first model; in other words, notwithstanding the difference in the model specification, the capability index was nearly identical to that in the previous model.
  - AFSOC, SEALs, and Special Forces again had the next largest coefficients of the SOF elements, which were similar in magnitude to those in Model 1.
  - All but one of the present and future indexes was statistically significant in this model: the task cohesion present index was the sole exception. In addition, and as expected, the present indexes all had a negative coefficient, and the future indexes all had a positive coefficient.[126]
  - The p-value for Chi-square remained at 0.0000, EPCP remained at 67 percent, the EPRE remained at 25 percent, and the AIC was 9167.
- *Model 3: Difference Variables With Controls & Interactions.* This model includes the difference variables, but also includes the respondent's estimates for the current unit on task cohesion and the other dimensions of assessment. It also includes interactions between the individual levels of the present estimates, and the individual levels of the difference variables, which was designed to provide more reliable coefficients on the difference variables:
  - The coefficient for the capability index is again the largest (1.19), and the value remains very close to that in the first two models.
  - The coefficients on the SOF elements remained negative, of similar magnitude, and statistically significant.
  - Of the difference indexes, present indexes, and interactive terms, only those for social cohesion 1 (the unit being "like a family") attained statistical significance.
  - The p-values for Chi-squared remained at 0.0000, EPRE was 68 percent, the EPRE remained at nearly 25 percent, and the AIC was 9168.

[126] The interpretation is that the higher the rating for the current unit, and the lower the expected rating for an hypothesized future unit that included women, the weaker the support for opening SOF specialties to women.

### Discussion of Results

Seven variables—the capabilities index, three of the SOF element variables, the quality of experience working with U.S. military women, how much the respondent had thought about the issue of women in SOF, and years of service—appear to be robust explanatory variables: each consistently achieved statistical significance across all model forms, and was consistent in valence and magnitude. While nearly all of the variables relating to task cohesion, social cohesion, trust, and leadership achieved statistical significance in the first two models, only the three variables associated with social cohesion 1 (the unit "being like a family") were statistically significant in Model 3. Because we consider Model 3 (the model containing difference variables with controls and interaction terms) to be the most reliable of our models,[127] we view social cohesion 1 as having a stronger claim to be a key driver of support or opposition for opening SOF specialties to women than these other variables. Interestingly, this result echoes RAND's 1993 and 2010 studies on gays in the military—as well as the DoD's *Comprehensive Review of the Issues Associated with a Repeal of "Don't Ask, Don't Tell"*—which also reported that social cohesion, but not task cohesion, was most likely to be affected by a contested change in military group composition, and to be associated with opposition to opening the military to out groups.[128] In any event, using this model as the focal point, we now summarize the key drivers of support or opposition for opening SOF specialties to women in terms of their marginal effects (see Table 5.5).

The table translates the coefficients, which are in log-odds terms, into marginal changes in the probability of strongly opposing the opening of SOF specialties to women. As shown in the table, a one-unit increase in the capabilities index reduces the probability of supporting the opening of SOF specialties to women by 13.2 percent, and AFSOC or SEAL membership reduces the probability of support by nearly 10 percent, relative to the reference group of Army Rangers. The other variables have smaller impacts on support for opening SOF specialties to women.

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[127] Nonetheless, we note that social cohesion, trust, and leadership variables attained statistical significance and were roughly of comparable magnitude in Models 1 and 2, which we adduce as evidence of their robustness. Thus, although these variables are not statistically significant in Model 3, there is some reason to believe that they also may influence support or opposition for opening SOF specialties.

[128] See Rostker, et al (1993), Asch et al (2010), and DoD, 2010.

**Table 5.5. Model 3 Results and Marginal Effects of Significant Variables**

| Variable | Model 3 Coefficient | Marginal Change in Probability[a] |
|---|---|---|
| Capabilities Index (Q23/Q24/Q25) | 1.186** | -13.2% |
| Q12. Quality of Experience | 0.176** | -2.0 |
| Q10. How much thought about issue | -0.089** | 1.0 |
| Q40. Years of Service | 0.022** | -0.2 |
| Social Cohesion 1 Difference Index | 0.752** | -2.6 |
| SOF Element (Compared to Army Rangers)[b] [2] | | |
| AFSOC | -0.872** | 9.9% |
| SEAL | -0.850** | 9.6 |
| Special Forces | -0.526** | 6.2 |
| MARSOC | -0.259 | N/A |
| SWCC | -0.264 | N/A |

NOTES: * p<0.05; ** p<0.01
[a] Marginal change in probability of strongly opposing opening unit to women for one unit increase in variable, while holding all other variables at their mean value;
[b] Marginal change for the SOF Elements is the discrete change from the base level using Army Rangers as reference group.

To summarize, then, in declining order of importance, our analyses suggest that the key drivers of support and opposition for opening SOF specialties to women are:

- *Capabilities (Index based on Q23/Q24/Q25).* The most important driver of support or opposition was a respondent's beliefs about U.S. military women's physical, mental, and overall capabilities for meeting the demands of their specialties: those who doubted women's capabilities to meet the demands of their specialty were far more likely to oppose opening SOF specialties than those who believed that women have the necessary capabilities—
  - *The fact that most respondents doubt that women possess the necessary physical and other capabilities best explains the high levels of overall opposition to opening SOF specialties to women.*

- *SOF Element.* Although majorities of all SOF elements in our sample were strongly opposed to opening SOF specialties to women, respondents who were AFSOC Special Tactics Team members or Navy SEALs evidence the strongest opposition to opening specialties, followed by Army Special Forces—
  - *As described earlier, however, there are more commonalities among SOF elements than differences, so these are differences in strength of opposition, not differences in kind. Nonetheless, these specialties are likely to represent the greatest challenges to SOCOM leaders in opening SOF specialties to women.*[129]

[129] We also ran Model 3 separately for every SOF element except AFSOC, which had two few respondents. These analyses revealed that the capabilities index remained the most important variable for each element, and that, as judged by the size of the coefficient, this variable was most important for SEALs (a coefficient of 1.355), and Special Forces (1.211).

Four additional variables consistently had somewhat weaker but still statistically significant impacts on support or opposition for opening SOF specialties to women—

- *Social Cohesion Index 1.* The more the respondent believed that there would be an increase in social cohesion in terms of unit members being "like a family," the lower his level of opposition to opening his specialty to women.
- *Years of Service (Index computed from Q40).* The best single measure of seniority, the more years of service a respondent had, the more likely he was to support opening his specialty to women.[130] *This suggests good potential for top-down support from more senior officers and enlisted personnel, but also suggests increasing challenges in building support for opening specialties as the policy is pushed down to more junior personnel.*
- *Quality of Working Experience With U.S. Military Women (Q12).* The next most important variable in support or opposition to opening SOF specialties to women was the quality of the respondent's past working experience with U.S. military women in a combat environment. *Those who had had good experiences working with U.S. military women were more likely to support opening their specialties to women than those who had not.*[131]
- *Amount Thought About the Issue (Q10).* The more the respondent said that he had thought about the issue, the higher the level of opposition to opening their specialties to women. *We cannot tell from the survey data the extent to which this reflects actual deliberation about the merits of the policy change, the level of concern about the policy change, or some combination of the two.*

It is important to note as well that a number of other variables were statistically significant in two out of three of our models; indeed, the coefficients for many of these variables exceeded those for the last three variables. Accordingly, there is somewhat mixed evidence for considering the following variables to be additional key drivers of support or opposition to opening SOF specialties to women:

- *Task Cohesion.* The extent to which members of a team work well together to accomplish a task or mission;
- *Social Cohesion 2.* The extent to which members of a unit socialize with one another;
- *Trust.* The extent to which members of a team believe that they can rely on other members of the team; and
- *Leadership.* The extent to which leaders are available to resolve intra-unit conflict.

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[130] The coefficient is based upon the raw variable; if we re-scaled the variable to a five-point scale such as that used for the other variables, the coefficient would be 13 times larger; hence, years of service actually is the next most important driver of support or opposition to opening SOF specialties to women after the capabilities index and SOF element.

[131] The reader will recall that the quality of experience working with U.S. military women in a combat environment was the only one of two variables that were included to test the contact hypothesis that turned out to be statistically significant in our models. The other variable was the *amount* of experience a respondent had working with U.S. military women in a combat environment.

## The Quality of Experience

We wondered whether expectations about a hypothesized future unit that included women might differ for those who judged their past experience as negative, and those who viewed it as positive. Our idea was both that the quality of past experience might condition expectations, and that the differences in expectations might illuminate potential reasons that respondents reported negative experiences working with U.S. military women in a combat environment. Table 5.6 reports the median response categories for those who said that they had a positive, negative, or neither positive nor negative working experience with women.

**Table 5.6. Selected Survey Results by Quality of Experience Working With U.S. Military Women**

| | Q12. Quality of Experience | | |
|---|---|---|---|
| **Question** | **Positive** | **Neither** | **Negative** |
| Q4. Importance: same performance requirements | 5 | 5 | 5 |
| Q5. Importance: same standards of conduct | 5 | 5 | 5 |
| Q11. Quantity of working experience w/ U.S. military women | 3 | 2 | 3 |
| Q20. Favor/oppose opening specialty to women | 2 | 1 | **1** |
| Q21. Favor/oppose opening unit to women | 3 | 2 | **1** |
| Q22. Worry performance standards will be lowered | 5 | 5 | 5 |
| Q23. Women will have physical strength/stamina | 2 | 1 | **1** |
| Q24. Women will have mental toughness | 3 | 2 | **1** |
| Q25. Women will be capable of job demands | 2 | 1 | **1** |
| Q26. Expectation: order and discipline | 2 | 2 | **1** |
| Q27. Expectation: how often women will be treated unfairly | 3 | 3 | 3 |
| Q28. Expectation: extent unit members will work together | 4 | 4 | **3** |
| Q29. Expectation: extent unit members will be like a family | 4 | 3 | **3** |
| Q30. Expectation: level of trust among unit members | 4 | 3 | **3** |
| Q31. Expectation: level of trust for unit members | 4 | 4 | **3** |
| Q32. Expectation: level of trust for women in unit | 3 | 3 | **2** |
| Q33. Expectation: men and women will be united | 4 | 4 | **3** |
| Q34. Expectation: men and women will socialize | 4 | 3 | **3** |
| Q35. Expectation: will be able to go to unit leaders to resolve conflicts | 4 | 4 | **2** |
| Q36. Expectation: if they pull their share of load, women will be accepted | 4 | 4 | **2** |
| Q37. Expectation: will improve sensitive, low-profile ops | 4 | 3 | **2** |
| Q38. Expectation: will improve communication w/ foreign populations | 4 | 3 | **3** |
| Q40. Service Years | 15 | 10 | **10** |
| Q42. Age | 36 | 31 | **30** |
| Q44. Education | 5 | 5 | **4** |

NOTE: All estimates are based upon weighted sample data. Median values except as otherwise noted. "Expectation" questions asked respondents about their expectations for a hypothesized future unit that included women. For Q4-Q38, a lower score connotes a more negative judgment, while a higher score connotes a more positive judgment.

The table reveals that those who reported a negative working experience with women had lower median scores on 20 out of 25 of the questions in the table than those who reported a positive working experience (the lower scores are **in bold** in the Table).[132] In addition to having more negative expectations, respondents with negative views on the quality of their past

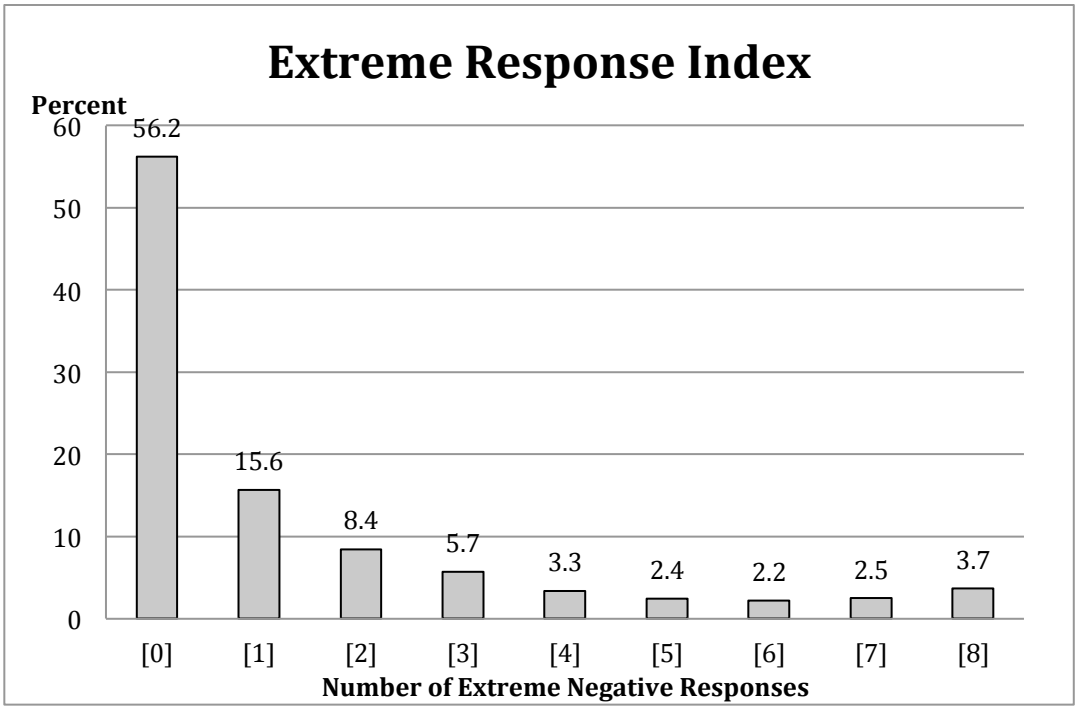
[132] There were 12 cases in which those reporting negative working experiences with women had lower scores than those who said that their experience had been neither negative nor positive.

experience working with U.S. military women tend to be younger, and have fewer years of service and slightly lower education levels than those who had positive views of their working experience.

### Sensitivity Analyses for "Extreme Responders" and Others

As was described earlier, we first coded as "extreme responders" respondents who had two or more extreme negative responses out of a total of eight possible items that asked about a hypothesized future unit that included women, and coded everyone else as "non-extreme responders." A total of 2,017 respondents (28.4 percent) in our sample were coded as "extreme responders," and the remaining 5,075 respondents (71.6 percent) were coded as "non-extreme responders." Figure 5.16 presents data on the percentage of respondents associated with different counts of extreme responses.[133] The figure shows that 56.2 percent of our respondents had no extreme negative responses, 15.6 percent had one extreme negative response, and so on.

**Figure 5.15. Percentage of Respondents by Number of Extreme Negative Responses**




We wondered whether "extreme responders" might differ from those who were not so extreme in their responses on the factors that drive support and opposition for opening SOF

[133] The most extreme negative response was the modal response for only one variable (Q32), one of three questions that asked about trust in a hypothesized future unit that included women. The issue of "extreme responders" is not unlike that of "problem-oriented reporting" in the health policy field. See Elliott et al., 2007.

specialties to women. To address this question, we ran the Model 3 specification for each group separately. Results are reported in Table 5.7.

As shown in the table, the coefficients for the "non-extreme responders" look very much like those for the total sample, which is not all that surprising given that they comprise about 80 percent of the sample. While the "extreme responders" also exhibit some similarities—for example, the coefficient on the capabilities index, while somewhat smaller, is roughly of the same magnitude—the "extreme responders" also exhibit a number of important differences, both with the "non-extreme responders," and the total sample.

For example, support from "extreme responders" appears to hinge more on expected changes to unit task cohesion than expected changes to social cohesion, which is the opposite of the case for "non-extreme responders" and the sample as a whole:

- The coefficient on the task cohesion difference index for the "extreme responders" (1.67) is the largest, statistically significant coefficient in the model for "extreme responders," whereas that index is not statistically significant either for the "non-extreme responders," or for the total sample:
  - *Support for opening SOF specialties from our "extreme responders" appears to depend much more heavily on their expectations of how unit task cohesion will be affected if women are allowed into their specialties than it does for "non-extreme responders," or the sample as a whole. Put another way, high unit performance appears to be a more important driver of support or opposition for the "extreme responders."*
- In a similar vein, the coefficient on the social cohesion 1 difference index does not achieve statistical significance for the "extreme responders," whereas it is both large and statistically significant for the "non-extreme responders" and the total sample:
  - *Support from "extreme responders" appears to rely less on expected changes to social cohesion than it does for "non-extreme responders," or the sample as a whole. Put another way, personal bonds with other members of their unit appear to be somewhat less important to "extreme responders" than to others.*

Two other differences between the "extreme responders" and the other groupings are notable:

- First, whereas the quality of experience working with U.S. military women in a combat environment was statistically significant for all three groupings, the coefficient on that variable for the "extreme responders" (.391) is more than twice that for the other groups (0.153 for the "non-extreme responders" and 0.176 for the total sample).
  - *This suggests that the quality of the experience working with U.S. military women in a combat environment is a much more important determinant of support or opposition for "extreme responders" than for other groupings. Moreover, if the quality of their experience can be improved in the future, "extreme responders" may be more inclined to support opening SOF specialties to women.*

**Table 5.7. Model 3 Results for Total Sample, "Extreme Responders" and "Non-Extreme Responders"**

| | Total Sample | Extreme Responders | Non-Extreme Responders |
|---|---|---|---|
| Capabilities Index (Q23/Q24/Q25) | 1.186** | 0.942** | 1.238** |
| Q12. Quality of experience | 0.176** | 0.391** | 0.153** |
| Q10. How much thought about issue | -0.089** | -0.160 | -0.074* |
| Q40. Years of Service | 0.022** | -0.043 | 0.024** |
| Task Cohesion Difference Index | 0.263 | 1.67** | -0.063 |
| Social Cohesion 1 Difference Index | 0.752** | 0.385 | 0.899** |
| Social Cohesion 2 Difference Index | -0.177 | 0.047 | -0.214 |
| Trust Difference Index | 0.059 | -0.116 | 0.023 |
| Leadership Difference Index | 0.156 | 0.095 | 0.189 |
| Task Cohesion Present Index | 0.172 | 0.786* | 0.034 |
| Social Cohesion 1 Present Index | 0.040 | -0.133 | 0.049 |
| Social Cohesion 2 Present Index | -0.070 | -0.167 | -0.074 |
| Trust Present Index | -0.183 | -0.148 | -0.152 |
| Leadership Present Index | 0.023 | -0.706** | 0.061 |
| Task Cohesion Index Interaction | 0.027 | -0.514* | 0.124 |
| Social Cohesion 1 Index Interaction | -0.113** | -0.074 | -0.143** |
| Social Cohesion 2 Index Interaction | 0.060 | -0.020 | 0.067 |
| Trust Index Interaction | 0.049 | 0.110 | 0.064 |
| Leadership Index Interaction | -0.005 | -0.071 | -0.009 |
| SOF Element (Compared to Army Rangers) | | | |
| SEAL | -0.850** | -0.383 | -0.873** |
| AFSOC | -0.872** | -0.640 | -0.723* |
| Special Forces | -0.526** | -0.431 | -0.525** |
| MARSOC | -0.259 | -0.063 | -0.281 |
| SWCC | -0.264 | -0.631 | -0.263 |
| Chi-square value | 2076.6 | 166.5 | 1574.3 |
| p-value for Chi-square test | 0.0000 | 0.0000 | 0.0000 |
| Expected Percentage Correctly Predicted (EPCP) (Percent) | 67.8 | 93.9 | 56.8 |
| Expected Percentage Reduction in Error (EPRE) | 25.2 | 13.3 | 21.1 |
| Akaike Information Criterion (AIC) | 9167.6 | | |

NOTES: * $p<0.05$; ** $p<0.01$

- Second, it is worth noting that in the "extreme responders" model some other variables that were statistically significant for the other groupings failed to attain statistical significance: perhaps the most notable of these are the dummy variables for SOF element, none of which attained statistical significance for "extreme responders."

As a consequence of these differences between "extreme responders" and others, we decided to take a comparative look at the three groupings, focusing on the variables that attained statistical significance in our models, to better understand the characteristics of "extreme responders" in comparison to other groups (see Table 5.8).

**Table 5.8. Comparisons of Total Sample, "Extreme Responders" and "Non-Extreme Responders"**

| | Population | Extreme Responders | Non-Extreme Responders |
|---|---|---|---|
| Capabilities Index (Q23/Q24/Q25) (-2 to +2 range) | -1.33 | -2 | -1 |
| Q12. Quality of experience (-2 to +2 range) | -1 | -2 | -1 |
| Q43. Currently married (percent) | 68.1 | 65.3 | 69.3 |
| Q10. How much thought about issue (1 to 5 range) | 4 | 5 | 4 |
| Q40. Years of Service | 10 | 9 | 10 |
| SOF Element (Percentages) | | | |
| Rangers | 16.7 | 15.3 | 17.4 |
| SEAL | 21.4 | 26.6 | 19.2 |
| AFSOC | 4.6 | 5.6 | 4.2 |
| Special Forces | 46.7 | 44.6 | 47.5 |
| MARSOC | 5.4 | 4.7 | 5.7 |
| SWCC | 5.2 | 3.1 | 6.1 |
| Total | 100% | 100% | 100% |

NOTE: All estimates are based upon weighted sample data. Median values except as otherwise noted.

The table provides a basic comparative portrait of the total sample, the "extreme responders," and the "non-extreme responders" on the key variables identified in Model 3.

As shown, the median "extreme responder" had more negative views about U.S. military women's capabilities, the quality of experience they had had working with U.S. military women, and the likely changes in task and social cohesion if women are allowed into their unit, than either the sample as a whole, or the "non-extremes." They also are slightly less likely to be married, have slightly fewer years of service, and say they have given more thought to the policy change than others. Finally, our SEAL and AFSOC respondents are more likely to be "extreme responders" than their presence in the total sample would imply: 26.6 percent of our "extreme responders" are SEALs, whereas SEALs comprise only 21.4 percent of the overall population; for AFSOC, the percentages are 5.6 percent and 4.6 percent, respectively.

The principal conclusion that we draw from this set of analyses is that the "extreme responders" may present unique challenges that will require careful consideration in implementing any policy to open SOF specialties to women: it will be important to both understand the sources of their extremely negative views on the potential consequences of opening their specialties to women to prevent or mitigate the more dire impacts that concern them most, and to fashion an implementation plan that successfully addresses their concerns. Prominent among these concerns—which are perhaps most acute among "extreme responders," but prevalent within the force as a whole—are the following:

- Concern that women lack the physical strength and stamina, mental toughness, and basic ability to perform the duties associated with their specialty;
- Concern that performance standards will be lowered, or that SOF women will be allowed in only as a result of meeting lower performance standards than the men;

- Concern that the poor experiences that they say they have had working with less well-trained U.S. military women downrange will continue if women are allowed into their specialties;
- Concerns about the prospects for disruptions to unit order and discipline, including sexual misconduct;
- Concerns that unit leaders will be less available to help resolve intra-unit conflicts involving women; and
- Concerns about the impact that women would have on unit task cohesion, trust, and performance, as well as the social bonds that exist within current SOF units.

### *Classification and Regression Tree (CART) Analyses*

CART analysis is a technique that recursively identifies the variables that best partition observations into progressively smaller groups, and presents results in terms of a classification tree that identifies which independent variables are the most important predictors of the dependent variable: the variables at the top of the tree are the best initial discriminators of outcomes on the dependent variable, variables in the next level down are the next best discriminators, and so on.

Unlike our multivariate statistical modeling (just described), which involved specifying which variables would serve as explanatory variables or predictors of support or opposition to opening specialties (Q20), CART analysis, like factor analysis, is an empirical approach that analyzes the underlying covariance matrix. Accordingly, as a cross-check on our multivariate models, we ran a set of CART analyses to assess the robustness of our findings on key drivers, and to see what if any other variables might also be important in influencing support or opposition for opening SOF specialties (see Figure 5.17).

The figure orders the questions from top to bottom in terms of their importance as predictors of Q20, support or opposition for opening SOF specialties, based upon the amount of variance they explain; the length of the vertical lines connotes the amount of variance each question or variable explains in predicting responses on Q20. As shown in the figure, our CART analysis generally confirmed that a respondent's assessment of women's overall capabilities for SOF (Q25) was the most important predictor of support or opposition to opening SOF specialties (Q20).[134] More specifically, a cut point of 2.5 on Q25 explains the most variance in Q20, while the other variables in the tree, with shorter vertical lines, explain smaller amounts of variance.

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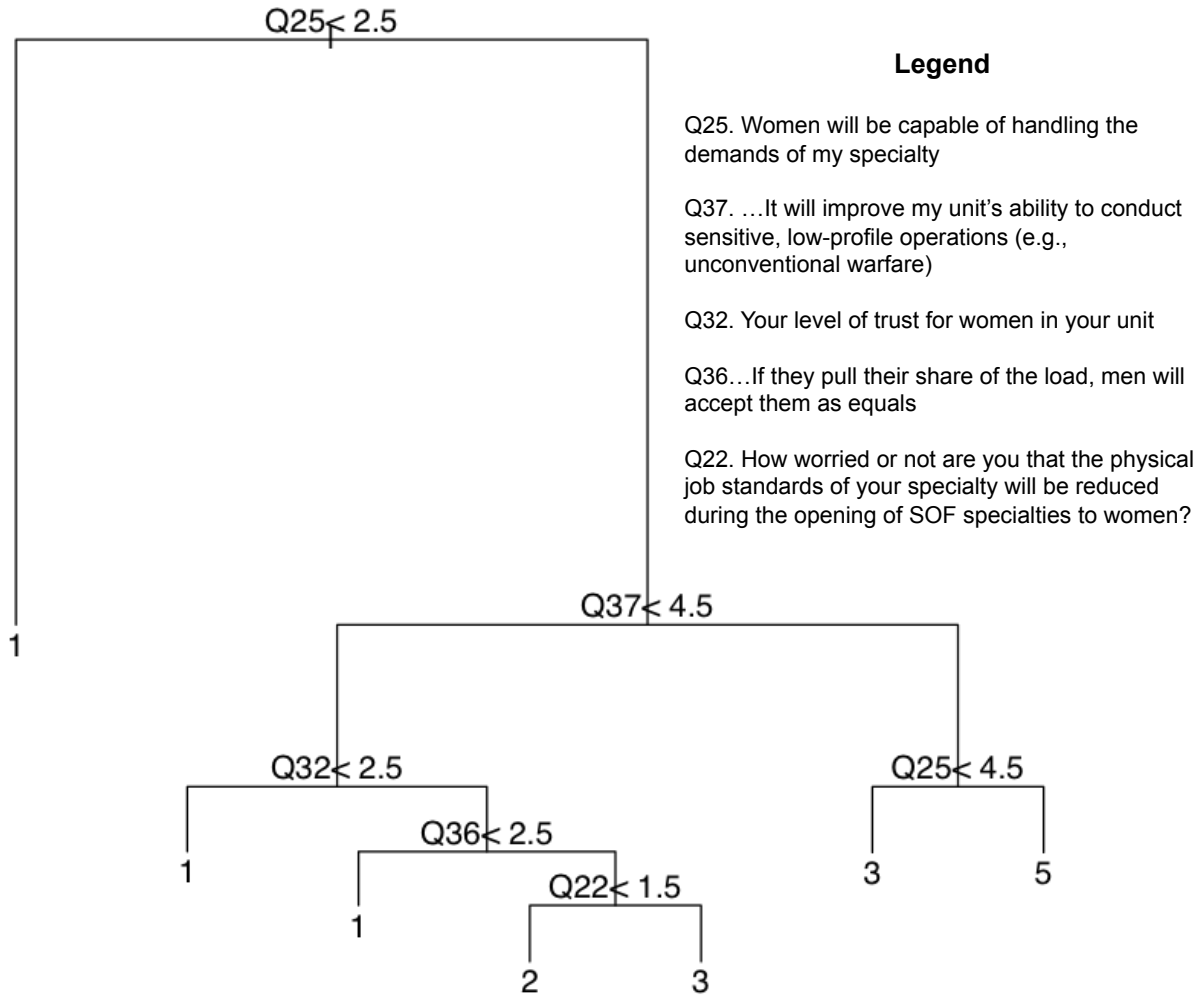
[134] For example, a value of one or two on Q25 (strongly or somewhat disagreeing that women would be capable of handling the demands of the respondent's specialty) was the most important discriminator of support or opposition to opening SOF specialties to women, and a value of one to four on Q37 (i.e., not agreeing strongly that assigning women to the respondent's unit would improve the unit's ability to conduct sensitive, low-profile operations) was the second-most important discriminator of support or opposition.

We also ran a CART analysis that used a five-item index for capabilities based on Q23, Q24, Q25, Q36, and Q37, with a similar result: that model revealed capabilities and the belief that if women pulled their share of the load that men would accept them as equals (Q36).

The next most important predictors also were related, directly or indirectly, to capabilities and future assessments: the belief that assigning women to the respondent's SOF unit would improve their unit's ability to conduct sensitive, low-profile operations such as unconventional warfare (Q37); a respondent's anticipated level of trust for women in a future unit with women (Q32); the belief that if women pulled their share of the load that men would accept them as equals (Q36); and respondents' level of concern that the physical job standards for their specialty would be lowered (Q22).

**Figure 5.16. Classification Analysis Regression Tree Results**




Altogether, these five variables were able to correctly predict 75.5 percent of our respondents' positions on Q20, somewhat better than the multivariate statistical models reported

in Table 5.4, which correctly predicted about 67 percent of our respondents' positions on Q20.[135] On the other hand, unlike our multivariate statistical models, the CART analyses, being empirical, are not theory-informed or theory-driven: as with factor analysis, CART simply reports the result of its analysis of the underlying covariance structure

We view as a quite favorable outcome the fact that the CART analysis generally echoes the basic findings of our factor analyses and our theory-driven multivariate statistical modeling, while also adding some interesting nuances that were not revealed by the multivariate models. On the latter point, perhaps of greatest interest is the reappearance of Q22, respondents' level of concern that the physical job standards for their specialty would be lowered, as a predictor of support for opening SOF specialties to women, which was a factor that our other analyses suggested was very important, but was not statistically significant in our multivariate statistical models. The CART result reinforces the importance of this belief as well.

## Conclusions & Policy Implications

Our analyses of the results of the Women in SOF Survey suggest a number of conclusions and implications:

- There is strong opposition to opening SOF specialties that have been closed to women: overall, 85 percent opposed letting women into their specialty, and 71 percent opposed women in their unit. Although opposition exists across all services, elements, specialties, and rank groups, the data suggest that SEALs, AFSOC Special Tactics Team members, and NCOs are most strongly opposed.
- Maintaining high performance standards appears to be the most important criterion for successfully implementing the directive to open SOF specialties to women. There are significant doubts among special operators that women can meet the physical, mental, and overall job demands of closed SOF specialties, however, and pervasive concerns that performance standards will be lowered so that women can qualify; this concern appears to reflect a lack of confidence in USSOCOM leadership's ability to successfully manage the issue of integrating women into SOF.[136]
- Only about four in ten respondents agreed with the proposition that women would be accepted if they carried their share of the load, with an equal number disagreeing; this suggests that respondents view performance standards as a necessary but not sufficient condition for accepting women into SOF.
- In a similar vein, given the poor quality of experiences working with U.S. military women in a combat environment that most respondents report, it will be important to "reset," and create a "new normal" in special operators' assessments of to overcome the negative perceptions that currently prevail.

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[135] The CART analysis also correctly predicted 92 percent of those who strongly opposed opening their specialty to women,

[136] See Chapter Three for a discussion of requirements for establishing gender-neutral performance standards.

- Concern about negative impacts on social cohesion, task cohesion, trust within the unit, and the availability of leaders to resolve conflict between unit members, also fuel opposition.
- Nonetheless, about four in ten of our respondents agreed that women might be helpful in conducting sensitive operations, and communicating with local populations. Accordingly, there is higher support, based upon mission requirements, for attaching women in other specialties to SOF units, and higher support for opening SOF *units* to women, than there is support for opening currently closed SOF specialties to women.[137] If the positions are indeed opened, then this may present USSOCOM with additional opportunities to integrate women into SOF beyond simply responding to the directive to open previously closed SOF specialties to women.

Thus, although the survey illuminates a wide range of challenges that USSOCOM is likely to face in opening SOF specialties to women, it also points to a range of potential solution paths that can help to manage these challenges, and mitigate their impacts, all of which will require top-down support from USSOCOM senior leaders. We say more on this topic in the concluding chapter of this report.

The next chapter details the results of our focus group sessions with personnel in the same positions as those of survey respondents, which was designed to provide additional depth and richness to the survey results.

[137] Although many of our respondents reported an unfavorable experience working with U.S. military women in a combat environment, there may be higher support for attaching women in other specialties to SOF units due to the fact that it already is quite common to attach other specialties to SOF elements on a mission basis.

# 6. Insights from Focus Groups

## Introduction

A standardized survey has many advantages but it also has limitations in that it does not allow for the full range of nuances in views to register. Our survey included both closed- and open-ended questions and allowed us to use statistical analytical techniques to understand the concerns to potential integration of women into SOF specialties. But we know that word limitations constrained some responses. In order to gain a richer understanding of the survey responses, we conducted a series of focus group discussions with SOF personnel in the positions closed to women.

We conducted a total of 49 focus groups (each lasting about an hour). The focus groups occurred from July 2014 through September 2014 and they involved every SOF service component and personnel from all seven SOF specialties closed to women. The focus groups took place at Camp LeJeune, NC; Coronado, CA; Ft. Bragg, NC; Ft. Benning, SC; Hurlburt Field, FL; Norfolk, VA, and; Virginia Beach, VA. In total, 440 SOF personnel participated in the focus groups. Table 6.1 lists the breakdown of the focus group participants by grade. In total, the following SOF personnel participated: 91 junior enlisted (E-1 to E-5); 240 senior enlisted (E-6 to E-9); 29 warrant officers; 47 junior officers (O-1 to O-3); and 33 senior officers (O-4 to O-6).

**Table 6.1: Breakdown of Focus Group Participants By Grade**

| Grade | Total Personnel |
|---|---|
| E-3 | 3 |
| E-4 | 28 |
| E-5 | 60 |
| E-6 | 82 |
| E-7 | 83 |
| E-8 | 50 |
| E-9 | 25 |
| W-1 | 1 |
| W-2 | 11 |
| W-3 | 11 |
| W-4 | 5 |
| W-5 | 1 |
| O-2 | 6 |
| O-3 | 41 |
| O-4 | 22 |
| O-5 | 11 |
| **Total** | **440** |

Table 6.2 lists the breakdown of the focus group participants by SOCOM component.

**Table 6.2: Breakdown of Focus Group Participants By SOCOM Component**

| SOCOM Component | Number of Participants | Number of Focus Groups |
|---|---|---|
| AFSOC | 17 | 3 |
| MARSOC | 47 | 7 |
| USASOC | | |
| Army Ranger | 47 | 5 |
| Army SF | 113 | 14 |
| WARCOM | | |
| SEAL | 139 | 14 |
| SWCC | 77 | 6 |
| **Total** | **440** | **49** |

The focus group questions included the following:

- Expectations Regarding the Potential Impacts of Integration
  - What will be the positive and negative impacts of integrating women into your SOF specialty?
  - How do you think the integration of women into your unit/team will impact:
    - Unit cohesion or trust among unit/team members?
    - Your individual morale and unit/team morale?
    - Your individual ability and your unit/team's ability to perform the mission?
    - Your unit/team's readiness?
  - Do you have any concerns about the impact of integrating women into your unit/team?
  - If women are allowed to serve in SOF, do you think the military will find it easier or more difficult to recruit good personnel than they do now? Why?
  - If women are allowed to serve in SOF, do you think the military will find it easier or more difficult to retain good personnel than they do now? Please explain.
- Advice Regarding Implementation
  - During integration of women into your specialty, what action(s) should be taken to address the concerns you have?
  - What other advice would you give to leaders if the decision is made to integrate women into SOF units/teams?
  - Are there specific actions that commanders can take to minimize any potential adverse impacts that integration might have on their units/teams?

During each focus group, at least two RAND research staff were present—one leading the session and the other taking comprehensive notes (see Appendix P for the focus group oral consent form, and Appendix Q for the Focus Group session questions). The substance of the comments did not vary depending on the gendered composition of the RAND team conducting

the focus group sessions, although on occasion, a few of the participants appeared to tone down their comments, using less profanity when a woman was present. To ensure inter-coder reliability, two RAND researchers then coded the notes from across the 49 focus groups in order to document systematically participants' responses, as well as identify any patterns across grade and SOF Service component.

The dominant perspective across the focus groups was that women should not be integrated into SOF units and specialties, and some focus group participants were highly emotional about the topic of integration. For example, in one focus group, in order to demonstrate that women are not suitable for SOF positions, one participant gave the RAND team a set of images of male and female animal species to demonstrate his point that men and women are biologically different and that they have different roles. For other participants, their views on gender integration were very personal:

> I have a 10 year old daughter, I tell her, you can do whatever you want…except [this: pointing at his SEAL insignia]. [laughter] (E-9, SEAL).
>
> If my daughter wanted to do it, if that was her dream, I'd want her to get it—but do not drop the standards to cheapen her dream (E-6, MARSOC).
>
> I have two daughters who are very good at SWCC stuff, and I tell them not to let standards dictate what they can or can't do. I tell them that they have to get what they want out of life and never let anyone tell them no. I don't see women demanding that they be able to enter the special forces, but if they really wanted to, this is what they would do (W-3, SWCC).
>
> But the standards must remain the same [emphatic]. We can't coddle them. I wouldn't want my daughter to join and go for SF, but wouldn't coddle her if she did (E-7, Special Forces).

This chapter summarizes our findings from the 49 focus group sessions and is organized into the following sections:

- Expectations Regarding Potential Impacts of Integration
- Concerns Regarding Integration of Women Into SOF Specialties and Units
- Analysis of Concerns Across Rank and Grade
- Analysis of Unique Concerns Across SOF Components
- Analysis of Concerns Across Mission Types
- Dissenting Views
- Potential Impacts on Recruitment and Retention
- Advice to Policymakers Regarding Implementation
- Advice Regarding Potential Roles for Women in SOF
- Conclusions

While there were SOF-Service component specific comments, there was a great deal of unanimity of views and similarities in issues and concerns across SOF. We have organized thematically the comments from focus group participants and added specific quotes to illustrate the themes and sub-themes, identifying the participant by grade and SOF component.

*We stress that some of the comments reported in this chapter may not be factually true*; they may be based on hearsay or on one-sided interpretations and biases. However, the comments represent perceptions of SOF personnel as they chose to share with us, and they illustrate the depth and emotion attached to the views.

## Expectations Regarding Potential Impact of Integration of Women in SOF

The focus group discussions centered on the impact of gender integration on individuals, units, and the SOF community as a whole. Most of the participants had conducted operations with Cultural Support Teams (CSTs) and Female Engagement Teams (FETs) and used their experiences with these units--both positive and negative--as reference points for considering integration.

### *Positive Impact*

Discussions in all of the focus groups tended to revolve around the potential negative impacts of integration, with only a small minority of comments referring to potential positive impacts. The comments on positive impacts were usually followed with the caveat that the positive impacts applied only under a very narrow set of circumstances. However, potential positive impacts were noted across a wide range of grades and SOF Service components and they centered on: 1) how women could enhance a limited set of niche missions, and 2) that women could access a different demographic and a different set of skills.

#### Women Could Enhance a Limited Set of Niche Missions

In each focus group, there were some observations made that women had enhanced some unit functions in specific situations. The most common potential positive impact of integration that was identified across focus groups is that women could enhance some missions including intelligence, surveillance, reconnaissance, as well as provide access to populations denied to male SOF members.

> There are positives. We do have female enablers. There are soft skill areas where this could work (O-2, Rangers).
>
> The intel role (18F) might be viable. I've had both good and bad experiences with the CSTs. But when they were good, they were very good (E-7, Special Forces).[138]
>
> There could be positives for positions not in the line. Maybe for intel or S5 [operations]. Right now, we're missing out on intelligent, hard-working, high performing females (E-6, Rangers).
>
> I think we are selling ourselves short by not opening it up to the best individuals. There are some positives. In some countries, two gorilla, tattooed men would look suspicious.

[138] The caution in this statement about bad experiences pertained to issues such as fraternization and lack of experience in combat situations, and there was broad consensus on these caveats among those in the focus groups who saw the potential of increased capabilities.

> But me and [a woman] walking down the street holding hands would not. It opens up new possibilities (E-6, MARSOC).

However, participants were quick to caveat that women should not be integrated organically into SOF teams as operators, but instead should be used as niche enablers.

> It's better off having them [women] as attachments rather than focusing on their having the same MOS. They're there for a specific job, like engaging with females in other countries (E-6, MARSOC).

> Fill specific roles that would bring capacity to missions. But I think that would be a better way to incorporate them into SOF—focusing in on their strengths, as opposed to broad brush stroke of opening up everything to women (E-9, SEAL).

> There are lots of benefits in the intel world in niche roles, we've all seen this. But the broad stroke is bad (E-6, AFSOC).

> I had a female intelligence officer, to get intel. She was pulled from the company because there were concerns about her being with SOF, which was a shame, because she was a good intel officer. She wasn't going to pull heavy loads, but she was good at her job. They have access we don't in most cases. That's the way to go. But to put them in the team, to put them through the exact same training as shooters, five day patrols - that's when we'll run into the physical differences between men and women (E-7, MARSOC).

> I don't think there would be any benefits not already provided by FETs. I don't think there's anything a trident-wearing female could provide that a non-trident wearing woman could not (O-3, SEAL).

The performance of the CSTs and FETs had influenced some of the focus group participants to conclude that females could provide an additional capability that would be useful.

> The CSTs are successes. Build them up as a tool. But not in the team room unless it is necessary. Then it is a completely different dynamic. Shape capabilities better in support MOSs rather than organic. Right now, CSTs are without a career path, used late, underutilized, no MOS. But we can use them. But in an ODA—it's a terrible idea (W-2, Special Forces).

> In certain aspects, I defaulted to FET because they have the medical, intel piece. If you had something similar to those units, once again appeasing both sides, not jeopardizing standards of SEAL teams, we call them the enablers…I think if we utilized nurses, intel, linguists, maybe come up with a pool of certain enablers, I think that could help out SOCOM (E-9, SEAL).

### Access to a Different Demographic and Set of Skills

Some focus group participants also emphasized that a potential positive impact of opening SOF specialties and units is that it would allow them to tap into a different demographic and set of skills that are now unavailable to them, or fill personnel shortages. Some said that ultimately, they want the best skill sets available for the task—regardless of whether that person is male or female.

> Most would agree we're selling ourselves short on not having females in certain roles. I want the best people at their job in every position in the Regiment (E-6, Rangers).

> Diversity. Other perspectives, outlook. Different approaches to problem solving (E-5, AFSOC).
>
> I believe there is a place for women in our unit, for certain aspects of what we do. Some are better suited than we are as men, in some aspects (E-8, MARSOC).
>
> One positive is that it gives us an additional demographic for recruitment. We're undermanned. They [females] could fill roles less attractive to some of us like supply (E-4, Ranger).
>
> Another positive is that it might help to push other needed changes. We are inefficient in many ways. They might bring a different perspective (E-4, Rangers).
>
> Studies show that females are more detail oriented. They have good organizational skills. We could improve the infrastructure in the battalions—that's a positive (E-4, Rangers).

A more senior member of the Ranger Regiment echoed this sentiment, but approached it more from a standpoint of employment of optimizing the skillset of the unit:

> We could have an ops/support split like others (Delta). Standards should be appropriate for the job. On one deployment I made a USAF female the J2 over a Ranger. You just need to use the best people for each job. We could modify selection and assessment to make this happen…Same unit, same mission. As it is, we bleed talent to other units, and they police it up (O-4 Ranger).

### *Negative Impact*

There was overwhelming consensus that the integration of women into SOF units would have major negative impact. Three broad categories of impact were identified from the comments of participants: 1) impact on mission effectiveness, 2) impact on future missions, and 3) impact on cohesion and morale. There was also general agreement across the focus groups that there were too many drawbacks to integration, and that women did not add any capabilities that do not already exist.

#### Impacts on Mission Effectiveness

One of the most dominant themes in the focus groups was that integration could have negative impacts on mission effectiveness. Participants cited concerns related to the physical and mental ability of women to conduct SOF missions, impacts on cohesion and on unit readiness. The specific concerns of participants are discussed later in this chapter.

#### Impact on Future Missions

There was widespread concern expressed that as the issue of potential integration of women into all SOF specialties is being considered, the nature of current and anticipated SOF missions is not understood or is not being correctly evaluated. Despite the numerous comments on the performance of CSTs and FETs in Iraq and Afghanistan, some participants cautioned that this was not an appropriate and forward-looking way of considering future operations. In particular, some participants emphasized that integration needs to be considered in light of potential future conflicts with near-peer adversaries.

> If your point of view is focused on opportunities in the last ten years of combat for females, these are self-evident. But for ten years we've been fighting people 800 years behind the rest of the world. If we're fighting near-peers, the focus should be on finding the extreme of endurance for the hardest missions. Why would you voluntarily reduce capability (O-4, SEAL)?
>
> The combat we face right now is not the same as others—the U.S. is the best trained, best equipped and up against the dumbest enemies. Not even close to fights in the past. Today, the U.S. couldn't mentally accept 3,000 deaths at beachhead infiltration. Someday, the U.S. will find itself fighting a real enemy (O-4, Special Forces).
>
> Avoid wars with any very valid enemies out there. Do not let Russia or China cause a fight (E-8, MARSOC).

This concern was repeated in different services and pay grades. Junior enlisted personnel indicated that they have seen evidence of new mission planning in their training regimens, and several of them emphasized that the future operational environment may not have the mature infrastructure that was in place during the later years of operations in Iraq and Afghanistan.

> Our training cycle has already changed for the next war. We're looking at patrols lasting for weeks, not operating on FOBs. More like 2003-2004 Iraq. Not FOBs and helos (E-5, Rangers).
>
> The issue isn't if we're in nice big bases in Iraq or Afghanistan [e.g., based in a mature theater, with developed infrastructure] with latrines and nice facilities. What about when we go to different areas (E-5, MARSOC).

### Impact on Cohesion and Morale

Many participants also expressed misgivings that this policy was being forced on the SOF community in a top-down approach and that the imposition of gender equality would have an adverse effects on the cohesion of small SOF teams, as well as on the outlooks of many of the special operators. There were numerous opinions that the accomplishment of being screened and selected for SOF units would be diminished if there was pressure to select females and graduate them from training programs.

> It's a slap in the face telling us that chicks can do our job. It's not the physical aspect that bothers me. My issues are morale and retention. This wouldn't be special to anyone anymore (E-4, Rangers).
>
> Special Forces will stop being looked at as elite (E-8, Special Forces).

Participants listed several effects of what they considered to be an imposed equality, including low retention and breakdowns in trust and unit cohesion. These effects are discussed in greater detail in subsequent sections of this chapter.

### Drawbacks without Additional Capability

There was also widespread concern throughout the various Service components and pay grades that there was no benefit to be gained for the effort and cost required to integrate effectively. During the focus groups, several participants asked "is the juice worth the squeeze?"—wondering whether integration was worth the numerous costs they foresee in manpower, mission effectiveness, and budget.

> We can train our way out of these issues. I'm sure enough PowerPoint briefs can train Marines not to do it, but then we're back to: is the juice worth the squeeze? Is it worth it to retool everything to get one or two females into it, to change all the teams, is it worth it (O-3, MARSOC)?
>
> Is the juice worth the squeeze? If we're talking about 0.5% of the population for females who even want to join, to be a SWCC or SEAL, is it worth trying to implement, fight through all the struggles: manning, facilities, cohesion, spousal issues (E-8, SWCC)?
>
> How does it help us? Is the juice worth the squeeze (E-7, Rangers)?
>
> At the end of the day…for that one psychotic woman -- exactly just as psychotic as we are -- is it worth all of this (E-6, SEAL)?

Many others indicated their belief that the SOF community was already integrated. CSTs, FETs, and female "enablers" were frequently referenced as examples of females already contributing to the mission. Most of those participants were quick to point out that insertion of women with redundant skill sets into small units would upset cohesion and morale.

> We already have CST. It's a good capability, but it already exists. Don't force me to take something I don't need. Don't evolve CST to ODA (E-6, Special Forces).
>
> Why are we changing from women on attachment to women in our MOS? Attachments work and will cause few issues at home with my wife. Attachments have worked well. I don't understand the need. There are more negatives than positives (E-6, Special Forces).
>
> What is the benefit of adding a female to the team? What am I gaining by opening things to females that we don't already have (E-5, MARSOC).
>
> What does a female provide, that if the need should arise, couldn't already be filled by some sort of support role (E-5, MARSOC)?

The following section discusses the specific concerns that were raised regarding the integration of women into SOF specialties and units.

## Concerns Regarding Integration of Women into SOF Specialties and Units

The main concerns expressed by focus group participants included:

- Potential impact on standards,
- Integration is a political decision and SOF is being used as a social experiment,
- It is unclear what additional capabilities women would provide,
- Ability of women to do the job,
- Favoritism,
- Potential impact on cohesion,
- Women may be a distraction,
- Potential impact on families,
- Female medical issues,
- Issues related to deployability of women,
- Potential impact on working with some foreign partners,
- Potential impact on the image of SOF teams,
- Changes to facilities,
- Additional screening/training,

- Impact of female fatalities,
- Concerns for women who may integrate into SOF.

This section summarizes these concerns. As one Marine noted:

> None of this is coming from us just because we're bigots. These are well-thought out points. It's not just that we don't want women (E-5, MARSOC).

### *Impact on Physical Fitness Standards*

The most dominant set of concerns centered on the potential impact of integration on physical fitness standards. Participants expressed concern that standards may be lowered or changed because woman cannot physically meet them, and there may be pressure to push women through training in order to achieve quotas or demonstrate success. In addition, some participants claimed that standards had already been lowered for other minorities and were concerned that the same would happen for women.

#### Physical Fitness Standards May Be Lowered

The overwhelming view among participants across focus groups was that women could not meet current standards and that as a result, standards would inevitably be lowered.

> I know there are women who can do this, but they are few and far between compared to men. I'm not being an a--hole about it; just a realist. The average male in here could pick one another up, but my wife couldn't do that. Will the standards change, is my biggest concern (E-6, MARSOC).

> If the standards are the same and they get through, I wouldn't have a problem. But if they maintain the standards, I don't see how women could get through (O-3, SEAL).

The single most common point raised by the participants was that physical fitness standards should not be lowered.

> The standards can't be dropped. People will end up dying if the standards are lower, because the standards are very relevant to our jobs (O-3, SEAL).

> [Standards can't change]—it makes or breaks the introduction of women (O-5, SEAL).

> They can't lower the standards. SOF can't be mass-produced. If they change the standards—it's not who we are (E-6, MARSOC).

> If a female can't perform to current standards it doesn't change the job. Now, you give a person who is weak, someone who should've been removed but [was not] because of standards not being upheld…what do we do (E-6, MARSOC)?

> In order for women to be truly—well, somewhat—accepted, they must go through the same training pipeline we all did, without changing the standards (E-8, SEAL).

#### Pressure to Push Women through Training

Many participants also expressed concerns that there will be pressure to push women through training, and as a result, standards will be lowered. In particular, many participants said that they thought that standards would be lowered in an attempt to demonstrate "success" or to achieve quotas. There was a concern that the intent to maintain standards is simply lip service. For many

of these respondents, the crux of their concerns revolved around letting women apply for these positions because that would mark the beginning of a slippery slope, which some respondents believe will lead to an erosion of standards.

> My biggest fear is that when implemented, the program must be successful. Females will need to train up. We'll all look bad if it fails, therefore the standards will be lowered (E-7, Special Forces).
>
> One of the biggest concerns: is it just saying open spots to women, or are they going to be forced through (E-5, SEAL).
>
> At some point, they'll say: you have to allow this person to graduate, regardless of whether they're able to (E-6, MARSOC).
>
> I have nothing against letting them in, but the standards can't change. And I think we would need to lower them. If people really want to see a female graduate it will be a problem (E-6, Special Forces).
>
> Even if you say standards didn't change, people will be skeptical that they made it through on their own. When they (leaders) don't get the product they want, we'll change the standards. It will lower the bar for all students (E-6, Rangers).
>
> This seems like a desire to make the exception the rule. Everyone knows a female could make it through physically. Once they're here, if only a few make it through, then there will be complaints of unfairness. Standards will diminish (O-3, Rangers).
>
> If they keep the standards, there will be no problems. But if they open it up, there will be women who don't make it through Infantry Training Battalion (ITB). And when a politician says 'hey, I voted for this, why are there no results?' Then they'll lower the standards (E-6, MARSOC).
>
> There will be pressure from the top. Once we figure out how the standards will work with women, we will still need to figure out where the "hotspots" are. Hotspots are those portions of training that might be unsuitable for women, but when every single one of those hotspots is removed, the training will become inferior to what came before (O-4, SEAL).

Some respondents expressed concerns that standards would be lowered because trainers and commanders would face pressure to push women through training.

> Trainers may be unwilling to push the most vulnerable button for women because they are women. The trainers would be afraid of sexual harassment or discrimination and so the training would not be at the same level (E-4, SEAL).
>
> Standards absolutely will change due to Equal Opportunity complaints. The biggest fear for a Commanding Officer is an Equal Opportunity charge (O-3, Special Forces).
>
> Standards will change. An O-6 is not going to want to answer questions about why a female was kicked out of the SEALs. The standards will change (E-7, SEAL).

### Comparison to Integration of Other Minorities

Some respondents expressed concerns that standards for women would be lowered because in their view, standards have already been lowered for other minorities.[139] The implication from

[139] In the late 1990s, there was a debate regarding the causes of underrepresentation of minorities, especially African-Americans in SOF. See Harrell, Nataraj, et.al., 1999.

these comments is that other minority groups have received preferential treatment (including lowering standards) to achieve particular quotas, and that the same would be done for women.

> If one makes it, people will ask why the other two didn't. There will be scrutiny, standards will lower. Just like when we were told we need more minorities (E-9, SEALs).
>
> I was at the schoolhouse for three years and I have been told to suck the egg before. There is extra attention given in sensitive areas like this. In order to keep the numbers up, flags pop up when minorities fail and higher-ups want them to get through the training. This leads to some compromises in training standards (W-3, SWCC).
>
> This has been done for minorities as well. Graduate rates were down so we removed the swim requirement. PT scores were modified (E-9, Special Forces).
>
> This already happens. You hear people say, 'we have to promote this many minorities.' What's going to happen if not enough females fit the requirements? She's going to get promoted when she's substandard, over 10 other guys that meet the standards (E-6, MARSOC).
>
> I saw the same thing with Blacks back in the day, standards changed to accommodate Blacks (E-9, SEAL).

Related to this, some respondents also claimed that, like other minorities, women would be stereotyped because of the perception that they passed lower standards.

> Currently, there are already negative stereotypes associated with non-whites who made it through on the basis of the perception that they had easier training. This will be even worse with women (O-3, SEAL).
>
> This [pressure to lower standards] hurts them [minorities] and others because the people who could pass the higher standards end up only passing the lowered standard and have an asterisk with their reputation (E-6, SWCC).

### *Integration is a Political Decision and a Social Experiment*

A dominant perception across all of the SOF components and across all ranks and grades was that the decision to open SOF specialties and units to women is a politically motivated decision, not one driven by operational needs. Many participants expressed frustration that the decision was due to politicians pursuing political agendas.

> This is a political thing. This is people in Congress. Because there is no grassroots movement of women saying we want to. It's some Congressmen trying to make equal rights for women. Whether anyone in this room wants to say it or not, that's what I think we all think (E-6, MARSOC).
>
> Bringing in women would lead to a loss of many men, and we don't want to be socially engineered by politicians (E-4, SEAL).
>
> It's good that society pursues equality but SF shouldn't be a petri dish (E-7, Special Forces).
>
> There was a political decision of: it's equal rights. But if they would tell us, 'we need 15 women in special operations for this specific reason, I think you'd get a better response (E-6, MARSOC).
>
> No one is willing to say that the guy to the right of me is less valuable than a social experiment. What are we doing right now that requires a female in that position? Are you prepared to tell her there are things she can't do (W-5, SEAL)?

### *What Capability Gap Do Women Fill?*

One of the most dominant concerns that we heard was that no one has explained what the operational requirements are for introducing women into SOF specialties and unit. Many participants expressed frustration that this was a decision that was being imposed on them, but they did not ultimately understand how and why the integration of women would improve their mission effectiveness.

> What are we doing or not doing, right now, that would require this change (E-7, Special Forces)?
>
> We almost feel owed for someone in Washington to tell us why, what we're spending, why are you doing this, what will women add to the teams? Because I've never heard someone say, 'if you bring women into the teams, we'll have this' (E-5, SEAL).
>
> It's being force-fed something people don't understand. It's not that's something we do or don't want—it's something we don't understand (E-6, MARSOC).
>
> Show me how they [women] improve the Regiment. It has been a failure integrating females in other units before. I know they can't do the real world mission. I need to count on people to perform when asked (E-8, Special Forces).

In particular, many participants wanted to know what capability women would bring to the fight.

> I want to know the reason behind it. That drives the process. If it is a capability gap, what is it: If equality, then it's nonsense. Women are not created equal. I know bad-ass women, but even they can't do it (E-6, Special Forces).
>
> If you can show me how putting women in there is going to make that mission easier to accomplish, then I'll support it all day long. But if you tell me it's about making people feel better about themselves, or as a social experiment, I'll never support it (E-6, MARSOC).
>
> This isn't driven by an operational need. We haven't seen a deficiency where a female with a trident would've helped (O-4, SEAL).
>
> What is the point to all this? To fill a perceived gap within our battalion, or is it just promoting a political agenda? Because if it's a gap, there is no gap. If we need a female presence, we get that [through a FET] (E-6, MARSOC).
>
> Why won't someone tell us why women will strengthen us (E-5, SEAL)?

Some participants suggested the need first to identify the capability gap and then think about if/how women might fill those gaps.

> Just like any other acquisition of gear or new program, the first question we must ask is, 'what is the benefit of doing it'? What are we getting out of it, other than to appease this public opinion that there is a strong feminist movement in America today, that 'I can do whatever a man can do' (E-5, MARSOC)?
>
> I think the first step is: we have to clearly define what it is we want; what is the end product. Otherwise, we're just spinning our wheels trying to get a mythical creature we haven't defined (E-7, MARSOC).
>
> Changes like this should come from the bottom up. If there is a need, we should identify it (E-6, AFSOC).

> We really have to ask, 'is there a gap to be filled'? Are we lacking something? If it's in the name of political correctness or progress, I don't think that's a valid enough argument (E-6, SEAL).

### *Ability of Women to Do the Job*

The majority of participants across the focus groups expressed concerns that women would not be able to carry out all of the tasks that are required in their MOS.

> I have nothing against women. If they can put up a woman now that can beat the numbers and do my job, I'd be thrilled to work with her. But the statistics—these women can't even do 8 pull-ups (E-6, MARSOC).

> I think for me, it's always going to be in the back of my mind: can this woman do the job? I don't care what she's shown me, what she's done. There's always going to be that trust factor in the back of my mind (E-8, SWCC).

> We talk about how SOF is supposed to provide a level of economy that general purpose forces can't. That's based off physical abilities of a very small set of guys. We may all have individual skill sets we contribute, but we are expected to be on the same level physically. If we start opening up slots and there are special quotas for females, what are we compromising in terms of our ground capabilities (E-5, MARSOC)?

Some participants indicated that their concerns stemmed from their personal experiences with women in combat and training situations.

> Teaching women tactics is like training a 12 year old…During the event, when the firing began, the women put down their weapons and yelled, 'Stop! It's too loud'—even with ear protection (E-6, Special Forces).

> Women are very protective. They nurture kids. Will a woman return fire and kill a child insurgent fighter? In Iraq, we were 10-15 kilometers ahead of the element. The female coalition soldiers would not return fire because there were kids in the crowd. It will happen in the ODA because women are protective creatures (E-5, Special Forces).

Some participants also expressed concerns that if women cannot meet the standards, it will cause downstream manning implications.

> If women were to come in, we would have to drop plug and play and give everyone their own specialties because there are some specialties that women could not do. This will lead to bottlenecks (E-5, SWCC).

#### Physical Requirements of the Job

Many participants discussed their skepticism that women could perform the physical requirements of the job and that additional manpower requirements would be needed to compensate for women. Concerns specific to each SOF component are discussed later in this chapter.

> A 50 caliber [machine gun] is not a light weapon. Our guys now throw it on the boat by themselves. If you need two people to do those things, it increases workload, manpower requirements (W-2, SWCC).

> Physical ability is the biggest concern. Lifting a 40 caliber [gun] onto a truck is a two man job, frequently done by one man in theater (E-7, Special Forces).

> If I'm shot—I'm 220 pounds without gear, what female is going to carry me out in a timely manner? That's a showstopper because any of the guys in this room right now could do it (E-7, SEAL).

Some participants also expressed concern that they would need to provide additional force protection for women—thus requiring more manpower.

> In our operational environment, where we work, a woman is a liability. Women are a side show. We need additional security to protect her (E-6, Special Forces).

> A lot of time, we have smaller teams—2 or 4 people. If 3 are male and 1 is female, now you've got to put her in a separate location. You have completely separate force protection concern that you have to take into account downrange (W-2, SWCC).

#### Missions Are Harder Than Training Standards

A common theme across the SOF components was that combat missions are far more demanding than training. Therefore, training standards should only be viewed as the minimum requirements necessary for the job.

> You have to have trust in the team member to do the job, keep it together on a mission. The schoolhouse doesn't take you there. Combat is the only way to get you there (O-4, Rangers).

> The PT test is a horrible measure of the ability to do the job (E-6, Rangers).

> Training is just the baseline. After that, there is even more intense training and I doubt that women can actually handle that (E-7, SWCC).

> I know females who could make it through the training, but I don't know one who could do the combat operations (E-8, Special Forces).

> It is important to remember that training is only an indicator of how well someone could perform in combat. It does not actually simulate combat (O-4, SEAL).

> Most look at BUD/S as the 'end all, be all.' It's not. The training here and operations are much worse. BUD/S is a sliver of what we do (E-7, SEAL).

> Ask any of us when we were the coldest, the most challenged, the most tired…it wasn't at BUD/S. You still have to prove yourself after BUD/S (O-3, SEAL).

### *Favoritism*

A general concern voice by many participants was that women would be treated with favoritism on a number of fronts that are discussed in more detail below, including training, promotion, and allegations of sexual harassment.

> I'm concerned about favoritism for promotion, forced standards. Say I get dropped to a new team. If there's a female master sergeant who in my opinion doesn't rate to be there, because I knew other master sergeants that have combat experience. But they wanted a female team chief, so they can write in a paper that they have one (E-6, MARSOC).

> Favoritism is a problem as well. Females may use their position to their advantage (E-7, Special Forces).

> And it happens now. They go cry wolf, claim 'I'm being treated unfairly… and now you're adding the 'I'm a woman'card. I don't feel any policies can be effective for integration (E-5, MARSOC).

### *Impact on Cohesion*

The potential impact on cohesion weighed heavily on the minds of many focus group participants. In particular, many participants had concerns about the impact that the integration of women may have on small team dynamics.

> There are still issues of cohesion. The way we talk and relate to each other are going to change. It's a scientific fact, when you put a woman in the room, the way men act changes (O-3, MARSOC).
>
> I'm concerned about the social dynamics. Females are used against males in SERE to break that dynamic and bond (E-6, AFSOC).
>
> At the Tactical Operations Center, the dynamic changes immediately as soon as a woman is introduced among the men. The men start acting like idiots (O-4, SWCC).
>
> This is a recipe for disaster. The team dynamics will change. It happened all seven times I had CSTs downrange (E-9, Special Forces).
>
> In our MOS, our specialty, there's a brotherhood-type bond amongst guys. A standard of respect, an understanding of what we went through to get here. If you add a female into the mix, we'd have issues with—there's a closeness, an understanding of how we treat, talk, relate to each other (E-6, MARSOC).
>
> I don't care how manly or aggressive this chick may be. If you add her into a small unit of guys going out to look for a firefight, to look to kill somebody, it will change things. From the dynamics of how the unit works, to – just the attitude will be different. And I firmly believe we will not be as effective, and it will result in the loss of future lives (E-5, SEAL).
>
> Men act different around females. When a female is brought into a room of alpha males—for a female to get along with a group of males—it's not just being able to do the job, but be part of the group, the brotherhood. I don't think it can work (E-5, SEAL).
>
> Women increase drama among men…drama will eventually be detrimental to unit cohesion (E-8, SEAL).

Some participants emphasized the unique bonds associated with small teams and that those bonds could be broken if a women were inserted into their teams.

> I think it would completely unravel the fabric of that small unit. The cohesive nature of a small unit is going to unravel (E-6, MARSOC).
>
> We verbally berate each other without reason sometimes, just because it's funny. ..With a female, if a comment came across, and she doesn't take it as she's supposed to, as a team person, it won't go well for her. It just won't (E-4, SEAL).
>
> It's not about the [vulgar] language, it's about the environment that creates. Now [with women present] we can't just sit around and be men. It's not about the language itself—that'd be easy (O-3, MARSOC).
>
> There's what you go through in training and your official time, and then you have the locker room bonding, the team space bonding, the guys messing around. As strange as it sounds, someone slapping someone with a towel in the shower—that's an element of the male cohesive unit (O-3, SEAL).

### Walking on Eggshells

One of the main concerns among participants is that if women are introduced to SOF units and specialties, they will need to censor their language or their behavior—or as many of them put it, "walk on eggshells."

> This is a brotherhood. There are places for them, but this isn't one of them. They cause drama, especially on deployment. I worked with CSTs while on deployment. It made a big difference as to how people acted (E-4, Rangers).
>
> War is really ugly—it takes a certain type of person. And it takes a certain psychology for coping with that. The brutality of war will not change. Infantry operations require outlets for coping without Equal Opportunity problems (O-2, Rangers).
>
> You can't be as hard on girls as you are on guys. The atmosphere is highly competitive, which then leads to sexual harassment claims…then leadership has to deal with the claims. The troops say 'screw this' (E-8, SWCC).
>
> If I was to say to X, stop being a pussy, that would be classified as a sexist comment, and then I'd have to worry about political correctness. Just like if I were to say, 'stop being gay.' I don't mean it in a degrading way, but now I have to worry about offending someone (O-3, MARSOC).

Some participants also discussed the potential operational consequences of having to "walk on eggshells."

> We will always be walking on eggshells and second-guessing everything. This cannot happen in combat, or else capabilities will be degraded (E-5, SWCC).
>
> Guys would be afraid to say thing they say on a daily basis, just joking around. That might translate operationally (O-3, SEAL).

### Concerns Regarding Sexual Harassment and Sexual Assault Allegations

On a related theme, many participants expressed concerns that they would need to change their language or their behavior due to fears of sexual harassment and sexual assault allegations.

> We don't have the time or patience to deal with thinking about how we walk, or talk around females. It's not part of our nature. It will definitely impact the timeliness of our jobs, our state of mind, and the complete surrounding in the teams. We are expected to be misogynistic. That is our job (E-7, SEAL).
>
> We become combat effective because we are politically incorrect. Sexual assault training is already taking away strength. There is no need to fix something that isn't broken (E-6, SWCC).
>
> If you have a problem with other men in your platoon, you can just fight it out, or beat him up. But with women, they will pull the sexual assault card and that will no longer be possible. This will change the way business is done (E-6, SWCC).
>
> 'Women in the kitchen'—they are more sensitive for hazing. There will be more claims of sexual harassment—even if it's not sexual harassment. 'Quit bitching' is not gendered, but might be seen as such. This will lower trust because we'll have to step lightly (E-5, Special Forces).
>
> Small teams absolutely must bond. But sexual harassment and assault are very public issues right now. Guys would be walking on eggshells (E-8, Special Forces).

Some participants also expressed concerns about how physical contact during training and operations may lead to allegations of sexual harassment or sexual assault.

> A lot of the training we do is very close physically. One of the standards is the buddy tow. You have to swim over, grab around the chest, and swim to the other side. Quite literally right across the chest, so is that going to be an issue? Another example is SERE school. Commonly, people spoon each other to stay warm (E-7, SWCC).
>
> I've been intimately, very close to men trying to stay warm. Nothing sexual about it. We were freezing. What about when a woman gets here? Are we supposed to say no because she's a woman, or yes, because she's part of the team (E-4, SEAL).
>
> Stripped down and buddy spooning…can't imagine girls would be comfortable with that…in mud and puke (E-5, SEAL).

One participant recounted a story about how the fear of sexual harassment affected behavior in a combat situation.

> We've done medical training and the first step is, take all the person's clothing off so you can check he's not bleeding out anymore. I've seen an Army girl bleed out after an airstrike because no one did that. Everyone was afraid to touch her, to take her pants off, afraid of sexual harassment suits, and she died (E-7, SEAL).

Other participants were concerned that integration may lead to more sexual assault cases and they expressed puzzlement about, on the one hand, the DoD emphasis on reducing sexual harassment in units and yet seemingly moving forward with integrating women into combat units in a way that would likely increase sexual harassment.

> We're trying to get rid of rape and sexual assault, but now we are going to put Melissa right in the front lines [in the Marine infantry units]? You have knuckle dragging dudes there, and have them get back from combat, and then she takes a shower. You can't say, 'let's go forward with this, we'll bring down sexual assault by doing this' [E-6, MARSOC).

### Potential Impact on Image of SOF

A major concern across all of the SOF components was the potential negative impact that the integration of women might have on SOF image. Specific concerns across the SOF components are discussed later in this chapter.

> You'd have to rewrite everything SEALs have worked for, the ethos: men have fought and died building the proud tradition and feared reputation that I am bound to uphold. Honestly, I feel like a female portrays weakness (E-5, SEAL).
>
> Men are attracted to the idea of joining a brotherhood, a special all-male fighting force. Diminish the reputation of the team, then it's mission failure because we're not prepared to answer national-level missions because we don't have the right manpower and training to complete tasks (O-3, SEAL).
>
> The first SOF component to let women in is going to be labeled 'weak' (E-6, MARSOC).

Some participants were also concerned about how adversaries may view SOF after integration.

> This is an alpha male specially selected environment. They believe they are the best of the best. Perception is reality—people won't believe they are as bad-ass as they were.

> And adversaries will know that. It [integration] will degrade how we look at each other, but also how bad guys look at us (E-4, Rangers).
>
> When people think of SOF, we are the alpha males of the warfighting community. The apex predator on the battlefield. If you are on the other side of the fence, what are you scared of? Guys like us coming in at night with guns. Females are seen as second-class. Integrating females will be seen as a sign of weakness. They are going to lose their fear of us (E-6, MARSOC).
>
> If any of your sons or daughters are captured and held captive by evil people, do you want a bunch of girls to go get them or a bunch of pipe beating SEALs to rescue them (W-4, SEAL)?

### *Women May Be a Distraction*

Participants also expressed concern that woman may be a distraction from the mission. In particular, participants emphasized that fraternization would be inevitable and that men may behave different toward women in order to protect them from harm.

> When I'm on a team and deployed, I want these guys…to be aggressive alpha males at all times. I don't want them to shy away from that. Adding a female to the mix is going to be a distraction. They're just going to try to impress the female, to compete for her attention. It will cause issues (O-3, MARSOC).
>
> Introducing women will affect good order and discipline, and any distraction will take away from the mission (E-9, SWCC).
>
> I deal with 21-30 year old guys in my unit. Half of them are single, getting in trouble and chasing women on weekends. It is hard enough to keep them focused. Now I would have to deal with this within the unit and we haven't even gotten to mission preps and execution yet (E-6, AFSOC).
>
> SOF is dealing with suicides and domestic violence. We're trying to heal after 12 years of combat. Now we'll have additional pressures (E-7, Rangers).
>
> I'm sure there are females out there who can do it, but I would definitely worry about the culture. It changes the interactions between people, even between males. It's a distraction that is not useful (O-4, Special Forces).

Some participants emphasized that they are already busy and that the integration of women may take up even more of their time.

> We've got enough s- -t to do. It's going to absorb thousands upon thousands of man hours to get people within SOF to accept women in SOF. That's the reality. We got enough s- -t to do. We don't have enough time to deal with this (E-7, SWCC).
>
> It's going to take the focus off the mission. And of the million things you've got on your to-do list, now it's problem number one (O-3, SEAL).
>
> All of these consequences require time. We are at 100% effort as it is. The effort to deal with this would need to come from other areas (e.g., training, etc.). There would be significant impact on what a leader would have time to do (O-2, Rangers).
>
> This will be a large drain on time. When something happens, we'll get the Army answer: seven hours of EO training. We'll lose time on actual training (E-7, Rangers).
>
> The 90+ hour work week is normal around here. Having females around would be a distraction. It would be a constant leadership challenge to deal with romantic relationships, etc. (O-2, Rangers).

### Fraternization

Participants across rank and SOF component expressed concerns about inevitable fraternization and the consequences.

> We can't train the romantic or sexual relationships out of people. Guys will have less trust, and this will lead to a drop in proficiency (O-3, Rangers).
>
> CSTs are always used as the example in these discussions. I have not been on one deployment where CSTs were not sleeping with someone or got caught up in something like that. Marriages have ended over having CSTs out there (O-3, Rangers).
>
> The guidance seems to just be "make sure you're professional." But in my opinion the CSTs were terrible. There is a primal quality to life on deployment, it just doesn't work (O-3, Special Forces).
>
> If you put a female in that environment, the natural attraction is for men to be attracted to women. You can talk about professionalism, but 'Keep your d--k in your pants' won't be enough when the attraction goes both ways (E-5, MARSOC).

### Men May Protect Women

Some participants also expressed concern that women would be a distraction because men may act differently towards women because they may want to protect them from harm. For instance, some participants indicated that the mission might be compromised because some men may prioritize the lives of women on their teams above mission accomplishment.

> They're sisters, not colleagues—always something to watch out for (E-8, SEAL).
>
> It's in men's nature. Women will get more attention. In combat, if a woman gets hurt, men may drop what they are doing to help her (E-6, Special Forces).
>
> It's genetically instilled in men to protect women. Having that situation in a combat situation would prove deadly to the unit (O-3, SEAL).

Some participants cited specific examples of how men had protected women in training or combat situations.

> On one deployment, we had a female intel specialist working with us. [One of the men] completely lost effectiveness. He was more concerned about protecting the female (E-7, Special Forces).
>
> In survival training, people helped the females. If they were stuck at certain parts, you just give them a hand. If it had been a guy, we probably would've watched them struggle and laugh (E-8, AFSOC).
>
> I was raised to take care of a female, open doors for a female, to nurture and provide. When I look at this other O-4, I don't worry about him. But if there's a female in a support role, my mind changes. I want to make sure I know where she's at (O-4, SEAL).
>
> No matter what, when I get a tasker for 2 raids, and I have 3 squad leaders and one is a woman, sorry, I'm not sending her (E-6, MARSOC).

## *Potential Impact on Families*

Another dominant theme in most of the focus groups was the potential detrimental impact of integration on the families of SOF personnel—especially their wives. Participants were most concerned that this would be a distraction from the mission.

> It is going to affect our operational effectiveness because we're fighting with our wives…now it's a self-inflicted gunshot wound. Troubles on the home front affect your readiness (W-2, SWCC).
>
> I think a lot of guys' wives probably sleep soundly at night knowing there aren't women around (O-3, MARSOC).
>
> The men who join the SEALs are physical by nature and not so cerebral, so some may break down on deployments and cheat. There's already enough drama amongst the wives (O-3, SEAL).

The specific concerns across SOF components about the potential impact on families are discussed later in this chapter.

### *Female Medical Issues*

Female medical issues were also a major concern among focus group participants. In particular, participants were concerned about: 1) higher injury rates among women, 2) issues related to hygiene, and 3) issues related to premenstrual syndrome and menstruation.

#### Higher Injury Rates

Apart from mission specifics, the long-term implications of SOF operations were discussed frequently. This included physically demanding training evolutions, injuries that cannot be properly attended due to operational tempo, and mission-specific challenges such as small boat operations. Respondents across Service-components were especially concerned about long-term injuries over time.

> There will be physiological problems with the training program. Their injuries will be prohibitive to completing the pipeline. It might take 12, 24, 36 months to get a female through with the time she'll need to recover (E-7, SEAL).
>
> Females will certainly exert themselves to keep up, maybe too much so. The Medical Review Board process will be difficult. There is a lot more potential for long-term and career-ending injuries (W-2, Special Forces).
>
> Physically, women are not built the same way men are. Bone structure, bone density is different. I'm talking about problems that military men have been experiencing over the years. I think it would be only compounded with women, because they're women. They're just not built for it. Even if they can stand the standards, the long-term effects on them will be greater than on men (E-8, SWCC).
>
> I just don't believe that the female body is designed for 10+ years of this type of activity. There will be big physiological changes and significant medical implications (E-7, Rangers).
>
> Effects and abuse on the body over time. Can the female frame stand up to that abuse? The costs are significant if they can't. If we find out years down the road that it's a problem, how do we solve that? We either remove them or we alter the job. Weight, physical impacts, and stress all affect the body (E-5, AFSOC).

#### Hygiene

Many participants talked about some of the challenging environments in which they operate, and the impact that austere environments may have on female hygiene.

> Take hygiene: we shower once a week—this will lead to medical issues (E-6, Special Forces).
>
> When women first were in combat arms in Iraq and Afghanistan, there were women who were not able to properly take care of their hygiene for a set amount of time. They got sick. A woman's job, or purpose in life, isn't to go do what we do—kill and all. It's to nurture. We sleep in the mud. A woman goes through that, it's going to create so many problems on her body (E-6, MARSOC).

Several participants also cited personal experiences in which they witnessed women who developed medical issues related to hygiene.

> I deployed with a female combat cameraman and we had to medevac her out for a yeast infection, which takes away from the mission (E-6, SEAL).
>
> We had a FET, a Cultural Support Team, attached to us in a crappy village. We had to get a helicopter flown in to extract just one woman because she was having issues with feminine hygiene. That helicopter wasted gas, could have been shot down. It's not an isolated incident. It happens all the time (E-6, MARSOC).

#### Premenstrual Syndrome and Menstruation

While in the minority, some participants discussed concerns about premenstrual syndrome and menstruation. Most of the concerns centered on perceptions that women may be more irritable or emotional during these times, or that women may be more limited in the activities during their menstrual cycle.

> Acting on emotions may be a problem. Judgment may be altered. The effects of combat may have a different impact during those times, I'm not sure (E-8, AFSOC).
>
> And what about PMS and that time of the month? Do we just stock Midol and carry that around with us? There's nothing good about that (E-8, Special Forces).
>
> I think PMS is terrible, possibly the worst. I cannot stand my wife for about a week out of the month for every month. I like that I can come to work and not have to deal with that (E-6, SWCC).
>
> I have a wife. She's very independent. But when that time of her month comes, she's weaker (E-5, SEAL).

### *Issues Related to Deployability*

A major concern across SOF components focused on issues related to deployability—particularly the impact of losing a team member on a small, self-reliant team. Participants emphasized that every single team member plays a critical role and that if women may not be deployable under certain circumstances (e.g., pregnancy, injuries or other medical issues, being a single parent), unit readiness would be compromised.

> Readiness is a compelling argument against this [integration]. It will impact the "op alert" phase for rapid response. Will she be able to leave in the middle of the night? I'm not sure how to manage this (E-7, Rangers).
>
> In a small unit, where you have 7 to 10 guys, the loss of one person is catastrophic (E-9, SWCC).
>
> Everyone has a small specific role, so we can't lose people. This makes us different from a big ship (W-2, SWCC).

Specific concerns related to deployability included pregnancy and restrictions on the utilization of women for some missions.

### Pregnancy

The major concern raised regarding deployability was pregnancy. Participants emphasized that losing a member of a small team, especially at a critical time, could be devastating and will cause unique manning issues. As discussed later in this chapter, these manning issues can be especially challenging in some of the SOF components.

> Deployability issues are big. This is a small career field with high OPTEMPO. I have concerns about pregnancy issues and other medical concerns as well. It's very hard for us to absorb losses in personnel as it is (O-4, AFSOC).

> The issue is readiness. Females would need to be ready to deploy constantly, just like we are. We would have issues with pregnancies, whether they were accidents or intentional. We would lose leaders at the wrong time (O-2, Rangers).

> If she gets pregnant, she'll leave the team. Men don't leave the team. What if the Team Sergeant is a woman? Or the medic? Whatever cohesiveness is gained in training is lost, especially if the woman is in a key leadership position (E-7, Special Forces).

> We have 4 people on a boat. It's a lot of time and money to prepare them. If a woman gets pregnant and can't go out on a mission, you have to find someone else to fill that role (E-5, SWCC).

> PMS and pregnancy issues are a concern. Especially anything that keeps them from deploying. It is bad if we spend months training for deployment, and then they don't go (E-8, AFSOC).

> Now you're taking someone we rely on. She decides to go out and get pregnant…If she even comes back after that—because now she has a child to take care of—I have lost an asset to the team who is not a one-to-one replacement. There is no one-to-one replacement (E-6, MARSOC).

> When we take a leadership position, we commit to some amount of time of my best effort. Will we change the policy so that she needs to commit to that? If she's in the squad for seven months, then pregnant right before deployments, what are we going to do about that (E-7, Rangers)?

### Restrictions on Utilization

Some participants also raised concerns that woman may not be able to be utilized for the full set of SOF mission sets. In particular, participants were concerned that women could not be utilized to work with some foreign partners, and that woman may not be able to be used for some missions because they are not physically able to carry out the mission.

> Some countries—especially parts of Africa, the Middle East—look at it as disrespectful for women to talk to men of certain stature. I think it has an impact on manning when you look at what detachment she's in; where she can get sent (E-8, SWCC).

> We'll focus less on the mission and more on her. And we won't be able to employ her everywhere (E-7, SWCC).

### *Potential Impact on Working with Some Foreign Partners*

A major area of concern across the SOF components focused on the potential inability of women to work with some foreign partners—especially those that view women as inferior to men. Training foreign partners is a key mission for several SOF components and good rapport with their foreign counterparts is essential. In some of the countries where SOF trains partners, gender norms are very different from the United States. There was a widespread perception among participants that women in SOF would not be treated seriously in such countries.

> We work with foreign partners. It doesn't matter what I think. Many of these people have absolutely no respect for females (E-6, AFSCOC).
>
> How do you convince people following Sharia law that this is acceptable? Exporting social values is not generally well received (W-4, Special Forces).
>
> The initial impression of a foreign partner is important. Being seen as intimidating, competent, builds rapport from the first good impression. It will be very different if there is a woman on the team. There will be a perception that she can't fight (E-7, Special Forces).
>
> [Some countries] are basically still savages. They have no respect for women at all. I was doing FID training and was the only white guy/American there. This type of mission wouldn't work with women (E-6, Special Forces).
>
> We can assimilate, but we can't force our partners to accept them (E-7, Special Forces).

Many societies are quite hierarchical and treat women as not only not equal, but as little more than property. There was a widespread view among participants that the presence of women in leadership or instructor positions would be seen as insulting and detrimental to the whole mission.

> If a woman were team leader, there would be less rapport with the host nation. There would be less team building if there were no respect for women on SF teams (E-7, Special Forces).
>
> As a guy, if I don't have a beard but my subordinate does, my subordinate with the beard gets talked to. They automatically divert to him for any questions of authority. What if the team sergeant is female, but we can't go over and make plans because they don't want to talk to a female? That's a major part of what we do, so it's a problem (E-5, MARSOC).

Some respondents also expressed concerns that this limitation would cause challenges in manning missions. Since the utilization of women for some missions would be restricted, some participants argued that the pool of people who could conduct these types of missions would be smaller and they would have to spend more time shuffling people to accommodate this limitation.

> Depending on the area we are operating in, we will need credibility and won't be able to get it if women are a part of our team. It can be hard enough to get them to listen to the enlisted troops. Women will make it even more difficult. If the pipelines and units are separate, then commanders can choose when to implement women and when to not (W-3, SWCC).
>
> Foreign partners are another issue. They won't deal with females in many cases. It depletes the number of capable forces by having to mix and match (O-4, AFSOC).

> Many of those partners just don't respect females. We will have a smaller pool of people suitable for engagements (O-4, AFSOC).

### *Changes to Facilities*

There was a widespread perception among participants that women and men would need to be separated in berthing and bathroom facilities and that this would lead to perceptions of unfairness because fewer women would have the same facilities as a larger number of men. The main concern though was: how do you build a cohesive team when you separate and treat some of the team members differently? Some participants recounted previous experiences in which they needed to accommodate women and doing so caused discontent among team members.

> Once I had females in my command in a building built for all-male teams. Now I had to cordon off half of the room to accommodate females, and now males are doubling up lockers, saying 'what the hell, I'm an operator and she has her own suite.' There are going to be significant facility issues (E-9, SWCC).

> At Ft. Bliss, three women shared their own barracks. Men were stacked. Women had time in the shower, in the bathroom. Guys had to wait 20 minutes for a shower. It breeds dissension (E-7, Special Forces).

> On the last deployment, the presence of females definitely hampered our team. We had very little living space to begin with. We had to clean out our tents. Some guys had to sleep outside in Afghanistan just to accommodate three women (E-7, Special Forces).

> One time, I was in a super severe environment and we had 3 females with us. We had bathrooms in a bag. We had run out because the commander had told us only females could use them. So then, all the guys got pissed off at the girls, just because they're here, we're burdened. It wasn't good for morale (E-5, MARSOC).

### *Additional Screening/Training*

A concern that came up during discussions was the need for additional screening and training will also need to be implemented, including psychological screening, and sensitivity training.

> We screen for a particular type of person. We would need to determine the traits that make a person more likely to be able to work with females (E-5, AFSOC).

> Men will still be the majority in SOF. Will this require additional training to desensitize men to seeing females killed or placed in danger (E-5, AFSOC)?

> I know what they will do—implement annual classes, annual training. That'll just make us madder (E-5, MARSOC).

> Don't make me do even one more week of additional training or classes (E-5, MARSOC).

### *Impact of Female Fatalities*

While in the minority, some participants discussed the potential impacts that female fatalities may have on men in SOF units.

> No doubt some can pass. Give me 400 females, I'll assess them the same. The problem is the second and third order effects. For example, what happens when a woman is killed in front of a man (E-7, Special Forces).

> It's inherent also, that seeing a woman die has a greater effect on a man's psyche than seeing a man die (O-3, MARSOC).

One participant recounted the trauma that he has experienced since witnessing a woman killed in combat:

> I've zipped up body bags on men and women. And with men, I could eat Cheerios after. But with women? The smell of burned hair - I can't smell it anymore, I can't stand it. I can't even fire up Pop Tarts because it reminds me of the smell of burned hair. (E-6, MARSOC).

Several SEAL participants across multiple focus groups also discussed the difference between male and female POWs.

> If a woman is captured, this would be worse than a man being captured and would take away the focus from warfighting (E-4, SEAL).

> If I was a POW, he just got beat up by five guys, I'm like [shrug]. If a female SEAL comes in and says, 'I just got raped by five guys, it totally changes the mentality of guys about what he's going to do next. I'm just saying, that's something to think about (E-5, SEAL).

> Some time ago, there was a part of Navy SERE where females were taken to the 'torture chamber' and guys folded almost immediately to prevent that from happening. It puts the rest of the unit at risk (E-9, SEAL).

#### Public Reaction to Female Fatalities

Some participants also expressed reservations that the U.S. public is ready to see women killed in combat.

> The U.S. public won't be willing to see women raped, skinned and shown on Al-Jazeera. I think it will backfire (W-2, Special Forces).

> We see men killed in a certain way. Females being killed will have a different political impact. There will be constant media imaging (E-5, AFSOC).

> I'm not sure that Americans are ready to see females being captured, made a spectacle of, hung from bridges or poles. What will the U.S. say when this happens (E-7, Special Forces)?

> I don't think the average American is ready to see women slaughtered. I'm not ready to see that (E-6, MARSOC).

### *Concerns for Women Who May Integrate Into SOF*

Although in the minority, some participants also expressed concerns for the women who may integrate into SOF. These concerns center around two areas: 1) career progression issues, and 2) support and morale.

#### Career Progression Issues

While in the minority, some participants discussed the career progression challenges that women will face during the initial phases of integration, as well as when they move up the ranks.

> There's a question of development. One or two females in a 1,000 man unit? There would be no support structure. One or two females doesn't work. We would need a larger number (O-2, Rangers).
>
> Every SEAL command must be led by a SEAL. There could not immediately be female SEALs at higher levels. They would need to rise through the ranks just like the men. They would need to have the exact same training as the men, with no training tailored to female needs (O-5, SEAL).
>
> I agree. This has to grow from the bottom. There can't be any lateraling (O-5, SEAL).

Some participants also expressed concerns about how women will be able to move up the ranks and the sort of challenges they might face when they enter leadership positions.

> There is a career progression issue here. The CSM's credibility comes from all of his experience on the teams. My credibility comes from rank and the three years I had on them a long time ago. That short window of experience might be a problem with pregnancy and other issues. You can't pause an officer's career. We might end up with some females who have very little time with the teams (O-5, Special Forces).
>
> If you told them their new Commanding Officer is a female, many guys would try to get a new unit (O-3, Special Forces).
>
> And some men can't take orders from women. If you all of the sudden you have a female chief, some men don't like to take orders from women (E-7, SWCC).
>
> We are alpha males. A female would be pushed up in rank, or maybe she would even make it on her own. How do guys follow her? We don't recognize rank--we recognize experience and abilities (E-7, SEAL).

Several senior personnel expressed a concern that females involved with the SOF community have not been given a viable program and career path, and that the development of such a program would not only benefit SOCOM but provide a constructive means of integration.

> Right now, CSTs are without a career path, used late, underutilized, no MOS. But we can use them (W-2, SF).
>
> You do see great, aggressive females. The key is finding the right program for them. Codify that program and they will step forward, so they won't be guessing at this whole spectrum of programs. Right now there too many programs for females that have been tried and failed, they are dead ends. Advertising is important. Get the right program, then get the word out effectively. How do females know the path to this type of service now? How do you articulate that (O-4, SF)?

### Support and Morale

Some participants also voiced concerns about the lack of female support structures and low morale among women entering these positions.

> The female will have no support system. She will be isolated (O-5, Special Forces).
>
> I think it will affect the female's morale. It would be bad for her. If we're perceiving this inequality, we're going to segregate and cast her aside. Same as if there's a dude who can't hack it, he's going to get segregated (E-5, MARSOC).
>
> I don't see the female's more being that high. If she changes by herself, stays in a hotel room by herself. I don't see a lot of morale if she has to do everything separately (O-3, SEAL).

The following section discusses our analysis of the concerns raised across SOF components.

## Analysis of Concerns across Rank and Grade

Across SOF components, junior enlisted personnel cited the following concerns the most:

- Cohesion may be negatively impacted,
- Sexual assault and sexual harassment allegations may arise,
- Standards may be lowered,
- The decision to lift the ground combat exclusion was politically motivated, not driven by operational needs.

Senior enlisted personnel cited the following concerns the most:

- Standards may be lowered,
- The decision to lift the ground combat exclusion was politically motivated, not driven by operational needs,
- Cohesion may be negatively impacted,
- Families may be negatively impacted.

Warrant officers in the focus groups cited the following concerns the most:

- Women may not be able to conduct the mission,
- Standards may be lowered.

Finally, officers cited the following concerns the most:

- Standards may be lowered,
- The decision to lift the ground combat exclusion was politically motivated, not driven by operational needs,
- Women would not increase capability in SOF teams.

The following section discusses our analysis of the concerns cited across SOF components.

## Analysis of Unique Concerns across SOF Components

The participants' comments showed a great deal of similarity across all the SOF components. That said, specialty-specific concerns also came up during the discussions.

### *AFSOC*

Our focus groups with AFSOC personnel comprised of: 12 enlisted personnel, and 5 officers. In addition to concerns about lowering standards and that women may not be able to participate in missions with partner nations, AFSOC focus groups expressed four sets of concerns that were either phrased more strongly or appeared to be unique to AFSOC:

- Pregnancy and other deployability issues may impact unit readiness—especially since AFSOC personnel often occupy unique positions in a unit,
- Synchronization of integration across SOF components,
- Challenges with deploying as individuals, rather than as a unit,
- Challenges associated with the physical aspects of their jobs.

### Deployability Issues Impact AFSOC Differently

A dominant concern expressed in our AFSOC focus groups was that pregnancy would impact deployability and unit readiness—especially since AFSOC personnel often occupy unique positions in a unit and deploy as individuals. Participants discussed the long timeline associated with mission planning, as well as the manning implications of trying to find a replacement if a woman were not able to deploy.

> Right now, we're dealing with deployment scheduling months out. I can't factor in exclusions such as pregnancy or the type of mission not being appropriate for females that far out. It will cause bias. It should be totally equal or nothing (E-6, AFSOC).

> PMS and pregnancy are a concern. Especially anything that keeps them from deploying. It is bad if we spend months training for deployment and then they don't go (E-8, AFSOC).

> Manning is already very low. Losing an operator would hurt (E-5, AFSOC).

### Synchronization of Integration across SOF Components

AFSOC participants acknowledged their unique position as operators who normally deploy as individuals to support other SOF units. Several participants expressed the concern that if AFSOC was integrated and other SOF components are not, the deployment of female operators to support male SOF teams would be problematic.

> If waivers were granted to other SOF entities but not to us, there is a divide. Some of us can then only do certain missions and this would limit career opportunities for women (E-5, AFSOC).

Some AFSOC participants also noted that each of the SOF components has selection and training pipelines of different lengths. Therefore, if the integration was not coordinated across the SOF components, there may be a policy mismatch between the personnel that AFSOC can supply and those units that require their support.

> On linking up with other SOFs, we've had males that didn't work out well. If we send a female to a unit with none, that would be a big problem. This needs to be done in all the services or none (O-3, AFSOC).

### Challenges Associated with Deploying as Individuals, Not Units

Many AFSOC participants also expressed concerns about the challenges that a woman might face deploying as an individual, rather than a unit. These concerns include being perceived as an outsider and the need to bond quickly with a team, as well as the ground commander. While men also face these challenges, most AFSOC participants said that they thought these challenges would be even more difficult for women.

> AFSOC is different because we're attached to other teams. You're already the outsider. It's hard to imagine pulling off bonding with the team through another layer of separation…We're like the guy who joins the football team the night before the game. This would just exaggerate those barriers (E-8, AFSOC).

> When we join a team, we're already disadvantaged. We're USAF, the new guy that no one knows. We need the ground commander's trust. We need to bond with the team. It will be that much more difficult with a female (E-5, AFSOC).

#### Challenges Associated with the Physical Aspects of Their Unique Jobs

Many of the AFSOC participants also expressed concerns about whether women could handle the physical demands of their jobs. In particular, participants wondered whether women could carry the amount of gear that is required, and whether they could carry out the various other physical tasks that are required when attaching to other SOF components—all while performing their specific mission.

> I was [to carry a load that was] 110 pounds over body weight on my last deployment. If weight needs to be shifted from a team member, that will be a major loss of credibility with the ground force commander (E-5, AFSOC).
>
> At the end of that walk with all that gear, we actually need to perform the mission. We need to control and speak coherently (E-8, AFSOC).

Since AFSOC personnel work with teams from across the SOF components, they must be ready to carry out a wide range of physical tasks. As a result, many participants were adamant that physical standards could not be lowered.

> There should be no bias in physical standards. They are requirements—you meet them or you don't. No judgment calls (O-4, AFSOC).
>
> I don't see a lot of females trying to get in. Females that could do it are few and far between. But lowering standards is not possible (E-8, AFSOC).
>
> PT standards are also an issue. We already water down PT plans when we include non-operators and other support personnel (E-8, AFSOC).

### *MARSOC*

Our focus groups with MARSOC personnel comprised of: 42 enlisted personnel, and 5 officers. In addition to expressing many concerns about lowering standards and that cohesion might be negatively affected, focus group participants also expressed three sets of concerns that were phrased more strongly or appeared to be unique to MARSOC:

- Women may not be able to perform the physical aspects of their mission,
- Standards are already being lowered in the Marine Corps infantry to accommodate women,
- Since many MARSOC personnel come through the ranks in the Marine Corps infantry, it is difficult to create a MARSOC culture that may be amenable to the integration of women.

#### Challenges Associated with the Physical Aspects of Their Jobs

Many MARSOC participants mentioned that they need to do a wide variety of physical tasks and that everyone on the team is expected to carry out all of those tasks. Some participants also referred to instances in which they had women attached to their unit and the women could not keep up in varying ways.

> I think it will affect effectiveness of teams, their ability to carry out the mission. I'm not opposed to women in the military. But in this specific MOS, I don't think they'll be able to accomplish tasks the way we do not (E-6, MARSOC).
>
> Put a woman operator in team, then I'm up at the breach with the door, he gets hit, I carry him out. That's a special core duty we have and I just don't think women would excel at it (E-8, MARSOC).
>
> Working in 14, 8, 9-man teams, everyone must do many things at once. No one gets to focus on just one slice of the pie (E-5, MARSOC).
>
> Women slowed us down. There were security considerations. An inability to patrol at the pace we would typically move at--carrying 45 pounds for each kit, all the technology—at a sustained pace (O-3, MARSOC).

### Women Already Have Difficulty Meeting Marine Corps Standards

Some participants also expressed concern that standards in the Marine Corps are already being lowered to accommodate women. In particular, some participants cited that women have to do a flex arm hang for the Marine Corps Physical Fitness Test (PFT) instead of having to do pull-ups like the men because women had difficulty meeting the pull-up standard.

> They've changed that, because if they make them do pull-ups, they have to kick them out (E-6, MARSOC).

Participants also pointed to the fact that no women have passed the Marine Corps Infantry Officer Course (IOC) and that few women have passed the Marine Corps School of Infantry (SOI) course in a recent experiment.

> We just sent 10 females to SOI. So you have a 30% success rate at SOI. I've seen some guys go thru SOI who I wouldn't trust with my damn life to a live round (E-6, MARSOC).

### Difficulty in Creating an Organizational Culture Amenable to Integration

The structure of MARSOC differs from that of the other SOF components in that it has a large number of personnel that are assigned for a tour, but not necessarily permanently part of the community. Several MARSOC participants noted that this creates an organizational culture that is not as uniform as those in the other components. Though the feedback from MARSOC personnel was generally against integration, some of those who addressed the subject of implementation believed that it if was to be done successfully, it would need to be left to the core members of the community.

> If SOCOM isn't specific about how it's done, MARSOC will pick up the ball and run over to the Marine Corps, and try to mimic what they're doing, instead of going bottom-up and asking our advice. They'll just use Big Marines (E-7, MARSOC).
>
> As long as we keep getting conventional Marines into these senior leadership positions, we will never have the type of mentality that it would take to set up a female program directly. Or I should say - until you get a SOF operational mindset up at the higher levels—the decision-maker levels—you'll never understand how they can fully tactically and operationally be utilized to the best of their ability (E-8 MARSOC).
>
> I'd want to see female operators. I'd love to see SOCOM come down here and say, 'General X, you're going to do this and this. Here are your constraints. Define what roles

> you want females to play in an operational scope….We can go back to the Marine Corps and say, 'hey, we're implementing females into combat operations. Slowly, but successfully (E-8, MARSOC).
>
> It has to be a SOCOM initiative supported by the Marine Corps, not dual MC-SOCOM. At least within MARSOC (E-7, MARSOC).

### *Rangers*

The focus groups conducted with the Rangers included: 46 enlisted personnel, and eight officers. In addition to concerns that standards may be lowered in order to push women through initial training, and that pregnancy may impact unit readiness, Rangers raised two sets of concerns that were phrased more strongly:

- Women may have a negative impact on the culture and image of the Rangers,
- Things may change in the barracks while in garrison.

One of the most dominant themes in our discussions with Rangers was that women would have a negative impact on the cohesion and culture of the Rangers. This was clearly a core concern of this community. Many of the participants discussed what they perceived as a devastating impact that the integration of women may have on Ranger culture.

> This will be a huge cultural loss. It will be the death of the Ranger culture. It will be the death of the organization as we know it (E-5, Rangers).
>
> The culture is the strength of this organization. Females would fill these roles, but the culture is different (E-7, Rangers).
>
> The physical standards aren't the reason to not integrate. 10% of females who want to get through may be able to. But the culture change once they're in is the real problem (O-3, Rangers).
>
> The bottom line is that Ranger culture will change. This is an all-male unit. Discussions wouldn't happen or won't happen the way they do now or we would have a lot of Equal Opportunity problems. In some instances, that might be a good thing, but this will entail a change in performance. Our leaders expect things from us, and those things require certain cultural traits (O-3, Rangers).

Many Rangers also expressed the view that the addition of women may negatively impact the image of the Rangers. Participants discussed the potential impacts of integration on morale, as well as the potential impacts on our adversaries' perception of Rangers.

> It will have a very negative impact. A lot of guys will leave the very day that a female dons the tan beret. That's a lot of pride taken out of the unit (E-4, Rangers).
>
> This is an Alpha male specially selected environment. They believe they are the best of the best. Perception is reality—people won't believe they're as bad-a-s as they were. And adversaries will know that as well. It will degrade how we look at each other, but also how bad guys look at us (E-4, Rangers).
>
> It's going to happen. And standards will certainly go down. Will the beret be the same (E-5, Rangers)?

Rangers also extensively discussed the "garrison" side of integration. Many of the junior enlisted Rangers live in barracks and spend a large amount of their time on post. Rather than

focus on what may happen on deployment, many participants cited concerns about what would happen at home. In a unit that prides itself on rapid deployment, some participants clearly believed that the discipline issues that would result from such close quarters—even within the United States—would threaten their mission effectiveness. This was discussed by both junior and senior enlisted personnel.

> What would happen with the barracks? Make them co-ed? Prepare yourself for a lot of problems with that (E-4, Rangers).
>
> We are unique, our only focus is being ready to go. This will be a distraction. There will be relationships within the unit, the barracks will be like frat houses (E-7 Rangers).

### *Special Forces (SF)*

The participants in the focus groups with Special Forces personnel included: 79 enlisted personnel, 14 warrant officers, and 20 officers. In addition to concerns that standards may be lowered in order to push women through initial training, Special Forces participants raised four sets of concerns that were phrased more strongly or were unique to their mission and organization:

- Women may not be able to interact effectively with some partner nations (a main priority of the SF mission),
- Women may have a negative impact on the image of Special Forces,
- Women may disrupt the unique dynamic in Special Forces teams,
- Women may develop medical issues from operating in austere environments.

One of the primary concerns of SF participants was the effect that integration may have on their ability to interact with foreign partners – many of which do not recognize women as equal to men. In particular, many Special Forces expressed concerns about women not being able to interact effectively with partner nations and the impact that this would have on unit manning.

> Operational focus is my primary concern. SF areas of deployment are in Third World and less than Third World countries. They do not have equal rights for women. If a woman were a team leader, there would be less rapport with host nations. There would be less team building if there were not respect to women. There would be less ability to be a force multiplier. I am less concerned with other concerns (E-7, Special Forces).
>
> FID/UW makes us different. She can kick doors, but she won't be able to effectively interact (E-7, Special Forces).
>
> Some team members will be limited in the operations they take part in. We're already very undermanned (E-7, Special Forces).
>
> Why would we want them if they can do half the job (E-7, Special Forces)?

Participants from other communities were also concerned about this effect, but because foreign internal defense (FID) is integral to the SF mission, this may account for the focus on this concern within the Special Forces community.

Another major concern expressed by many Special Forces participants is the negative impact that women may have on the image of the Special Forces. In a nutshell:

> SF will stop being looked at as elite (E-8, Special Forces).

In response to the statement above, another participant responded:

> Yeah, but we said that about gays (E-8, Special Forces).

In the exchange below, another participant pushed back on the dominant views that women may have a negative impact on the image of the Special Forces.

> I once saw a pregnant woman wearing a green beret (for two years, support personnel were permitted to wear the beret). It was a huge disruption for morale (E-9, Special Forces).
>
> I remember her. She had no tab, but that b---h was wearing a beret. If I see a female wearing one, I'll retire (E-9, Special Forces).
>
> Yes, but you guys will phase out. Younger people have less of a problem with this (E-8, Special Forces).

Another dominant theme in our discussions with Special Forces personnel related to the unique mission and culture of Special Forces Operational Detachment-Alpha (ODA) teams. Many participants emphasized that the small size of the ODAs create a unique team dynamic that may be upset if a woman is introduced into the team. Many participants also emphasized that ODAs often live in austere environments among the enemy and routinely see combat.

> ODAs are different. We are the premier Unconventional Warfare (UW) group. We live in remote places for long periods. Other SOCOM units work in larger FOB areas. Females won't have [changes] for decompression or other females [for support] in ODA settings (E-8, Special Forces).
>
> Other groups have had some success [with integrating women], but we are living among the enemy when we go out. Other groups seize an objective, then separate the population. This isn't the same. Living in small teams is the key issue (E-8, Special Forces).
>
> We have females who are capable of certain physical events, but the social terrain of an ODA is very difficult for integration (W-4, Special Forces).
>
> Combat environments require combat operators. The ODAs are engaged constantly when in-theater. Sometimes for months. That perspective is not represented in the current argument (W-2, Special Forces).

Some Special Forces participants also expressed concerns about the physical impact of working in austere environments—particularly on female hygiene.

> SF needs physical capabilities. Women might have physical strength, but what we go through, they need more. Take hygiene: we shower once a week—this will lead to medical issues (E-6, Special Forces).
>
> When traveling, we relieve ourselves off the back of the truck. How will women handle that? We go weeks, sometimes months without a shower. There will be hygiene issues (E-7, Special Forces).

### *SEALs*

The focus groups with SEAL personnel included: 92 enlisted personnel, eight warrant officers, and 39 officers. In general, the SEAL participants were among the most adamant that their small unit teams should not be integrated. In addition to concerns that standards may be

lowered, SEAL participants raised five sets of concerns that were phrased more strongly or were unique to their mission and organization:

- The impact of changing informal SEAL standards,
- Integrating women may impact their families,
- Concerns regarding alleged sexual harassment and sexual assault,
- Concerns related to their close, physical interaction with one another,
- Concerns that women may not be able to perform the physical aspects of their job.

There was some discussion of informal standards in SEAL culture (those physical standards that are not official standards, but rather cultural standards) and how those could not remain the same if women are integrated.

> Standards can't remain the same. There are things not on paper that can't happen with women (E-5, SEAL).
>
> Even if the standard doesn't change on paper, it would change informally (E-6, SEAL).

When discussing the issue of standards, many SEAL participants turned to the impacts that integration may have on the Basic Underwater Demolition /SEAL (BUD/S) training course.

> The boat races are when the instructors, when the boat crews start screaming, getting derogatory. When guys start punching each other. That's when you find those weaker guys not holding up their end of the boat. With girls, I can't behave the same way (E-5, SEAL).
>
> If I were an instructor, I'd be afraid to berate a female the way a male gets berated (E-5, SEAL).
>
> Now they're going to say, 'Why's the guy picking on that lady, he's singling her out.' That's been part of BUD/S for years (E-5, SEAL)

SEALs were also quite concerned about the impact that integration may have on their families. Many participants mentioned that this additional stressor would just be one more thing to distract them from their mission.

> It is a major concern for a lot of the wives that—it's bad enough that half of us have us have a better relationship with our platoon than our family. It is a consideration that needs to be taken to the table (E-9, SEAL).
>
> My wife was absolutely livid about this (E-6, SEAL).
>
> The wives will definitely object. My wife knows how close we are here. She won't want a female entering that mix (E-7, SEAL).
>
> I think my wife would probably have trouble with me shacking up in a tent with a woman for a week on a mountain. I've done dives in small confined spaces—it's not a job that men and women can do together (E-7, SEAL).

In addition, many SEALs were also concerned about alleged sexual harassment and sexual assault if women were integrated into their teams. Many participants mentioned that they would need to watch their language or alter their behavior around women for fear of being accused of sexual harassment or sexual assault. This too, was cited as just another stressor that could impact operational effectiveness—especially by causing teams to be "timid."

> There's ways that men act—you're going to have to watch yourself everywhere you go, never turn the switch off. You're going to be worried all the time. What if I say something wrong (E-5, SEAL)?
>
> We don't walk on eggshells. We say what we want; guys take it or leave it. Especially with all the sexual harassment and rape charges coming out—it's like, did I just say something that ended my career (E-4, SEAL)?
>
> There will be fear amongst men. Just the fact of sexual assault. There would be added stressors for married guys as well…it will make them timid. Our job is about violence in action. When you start bringing timid men into a firefight, people will die (E-5, SEAL).

Many SEALs expressed concerns that since their training and missions require them to interact with one another physically, that may cause problems if women are integrated. Some also expressed concerns about sexual harassment or sexual assault allegations stemming from this close physical interaction.

> We interact with each other physically very close. All the different times we touch each other. When we're about to jump off a helicopter, you have to check things, go between a guy's legs. At what point can a woman say she was touched in the wrong way (E-4, SEAL)?
>
> Everywhere we change, we change in front of each other, from wet to dry clothes. Some guys don't wear stuff underneath. Now in a security situation, what do you do with that one woman who must change clothes in front of guys (E-4, SEAL)?

Another dominant concern expressed by many SEALs was that women may not be able to physically carry out the types of missions expected of all SEALs. In particular, many participants cited specific physiological or medical issues that may prevent a woman from carrying out particular tasks.

> I've got people who we'll get shot if she can't get up that ladder, do the equivalent of 90 pull-ups with all the equipment on her, to get up that ladder (W-3, SEAL).
>
> When females are on their menstrual cycles, they have increased chance of bends, so we wouldn't bring them on target (W-3, SEAL).
>
> I see 20 hour work days, high metabolic rates. Women would lose weight quickly. There was a study the Brits did on a regular battalion, in which they [women] were not able to keep up physically. Women's bodies will break down quickly because of the lack of testosterone—even if they are in shape (E-4, SEAL).
>
> We have to work 12 hours a day, seven days a week for six months of the year…The physiological differences make it very difficult and the possibility of injury is more likely (E-9, SEAL).

### *SWCC*

The focus groups conducted with the SWCC included: 67 enlisted personnel, seven warrant officers, and three officers. SWCC raised four concerns that were either phrased more strongly or were unique to the nature and demands of their missions:

- The potential physical toll of operating their watercraft,
- The potential consequences of living and working in the austere environment of their watercrafts,

- The potential impacts that integration may have on their families,
- The potential need to change facilities and equipment that are specific to their missions.

Most SWCC participants expressed concerns about the physical toll of operating in their watercraft. Most participants were skeptical that a female with smaller frame and bone density could withstand such conditions for more than a few years.

> The impact you take on these boats—which is standard practice here—does wear on us a lot. That's something you would have to see how it would work out, but I think it would be a big concern. (E-5, SWCC).
>
> There are a lot of us with shoulder and back problems. It's like a car crash when you're out there (E-6, SWCC).
>
> Doesn't matter if it is 1 foot or ten foot waves, every one has an impact. Tremendous amount of stress on your body. Could a woman do it, handle it just as much as a man? Yeah, maybe. But do we really want to put women through that (E-7, SWCC)?
>
> All of us have physical issues of some kind from the boats. Backs, knees, beat up, we're broken. Across the board. And we're all physically fit guys. How is that going to be for a woman doing this for 20 years (W-3, SWCC)?
>
> I definitely see benefits of women in Naval Surface Warfare (NSW). I would love to see closed-looped female operation to support missions. But from the long-term physical condition, long hours underway on a boat—that's a completely different mission set (W-2, SWCC).

Another major theme of concern among SWCC participants was the austere environment of the boat. Participants emphasized that there is no bathroom or privacy on the boat and that they often spend long periods of time on the craft. Such an environment creates logistical challenges on many fronts.

> [We go out] for long periods of time—24 hours or longer. You have to change clothes; everyone has to see you naked. You're in an open boat, no closed areas, no bathrooms but you have to change out of your dry suit into clothes. You have to get naked. This is potentially an issue (E-7, SWCC).
>
> There's no privacy on the boat and nowhere to pee for 12 hours at a time. It's much easier for men to pee over the side than women (E-9, SWCC).
>
> Recently we were out longer [on the boat]. Now it's morning and I gotta go number two. What do we do? I'm not going to tell everyone to stop. There was an empty ammo can so I just squatted and went out in the open on the deck (W-1, SWCC).

In addition, many SWCC participants also discussed the potential impacts that integration may have on their families—particularly since they may be in a small confined space on their boat for such long periods of time.

> It's going to create a lot of family drama. I know for a fact, no matter how strong your relationship is with your spouse, if I say I'm going on a trip for 30 days with Kelly, my wife is going to say, 'no the f—k you're not' (E-8, SWCC).
>
> Right now, there are no questions from my wife when I'm on deployment because she knows I'm just out with the boys, but if women are introduced to the special forces, she won't be as trusting (E-9, SWCC).
>
> Even if I am okay with bathrooms that are shared between me and a woman, my wife still wouldn't be (E-9, SWCC).

Lastly, some SWCC participants also discussed the need to modify facilities (since many of them do not have showers or restrooms for women), as well as their equipment.

> This building has an open shower for everyone. We'd have to have a complete other room to facilitate women. Then what about body armor, and anything else—boots. Whatever gear we wear that has to be modified (E-7, SWCC).

> Dry suits for instance, comes to mind. It has a zipper that you can open about 10 inches to urinate, then zip it back up. For women, that's a problem (E-7, SWCC).

The following section discusses our analysis of concerns across mission types.

## Analysis of Concerns across Mission Types

In addition to common concerns that were prevalent throughout the focus group discussions, common operational themes were also identified. The concerns associated with these operations are important because, while they may not have been commented upon as frequently as other concerns, they are potential "show-stoppers" to successful integration and employment of women in SOF operations.

### *Austere Conditions*

Many participants shared anecdotes of the austere conditions that were necessary for months at a time on various operations.

> Our missions just don't lend themselves to females. We're not conducting training with the German Army. We're operating in very austere environments (E-7, Special Forces).

These included the inability to bathe, the necessity of staying motionless in holes dug into the ground for long periods of time, and needing to "spoon" with other team members to maintain warmth. Several concerns were pertinent to these conditions.

#### Lack of Privacy

> Some deployments I've done…we were living in small facilities, fighting. Those segregated compartments for sleeping and showering weren't available. Sometimes we lived in tents—stacked on top of each other. The sense of privacy that women would expect won't be there (E-5, MARSOC).

> There are times we've had to bathe in creeks at the sides of roads. I don't see how that would work with women (O-3, SEAL).

#### Hygiene

The first was that hygiene issues may develop faster or be more significant for females than for males in these environments.

> [G]uys can go six months on baby wipes, females can't without getting sick or other issues. We've seen this before. When women first were in combat arms, in Iraq and Afghanistan, there were women who were not able to properly take care of their hygiene for a set amount of time. They got sick (E-6, MARSOC).

> Hygiene is a big issue. We need to be on austere bases with infrequent supply drops. Will she get special treatment to be medically safe (E-4, Rangers).

#### Close Physical Contact

Second, the closeness of SOF team members is prohibitive to those who are concerned with appropriate male/female relations and explaining the realities of deployment to spouses.

> There is a lot of discussion about sharing tents and things of that nature, but that isn't applicable. We might be in a foxhole for a long period of time with 2-3 other people. How is that going to work with a female (E-7, SEAL)?

> My last deployment was just me and one other guy…I would not have done my two-man mission with a female. I just won't do it (E-7, SF).

### *Demands of Movement*

The severe stress placed on the body during movement to and from objectives was also discussed in each of the focus groups. Specifically, participants pointed out that the physical demands of an operation far exceeded those experienced during training –with the added stress of needing to perform the mission once on target.

> Some females crush the male PFT scale, but will collapse under the weight of a ruck. My body (30 years old) is starting to break down after nine deployments (E-6, Ranger).

> We have a small guy on our team and he's expected to haul all of his mission equipment. To counter the IED threat, we've started walking a lot more. He's expected to take all of his gear…At the end of that walk with all that gear, we actually need to perform the mission. We need to speak and control aircraft coherently (E-8, AFSOC).

> If weight needs to be shifted to another team member, that will be a major loss of credibility with the ground force commander. It will impact the mission significantly (E-5, AFSOC).

### *Small Boat Operations*

As previously discussed, SWCC participants cited many concerns specific to their small boat operations. These included: the physical toll of operating on their watercraft, the potential physical toll of operating their watercraft, the potential consequences of living and working in the austere environment of their watercrafts, and potential changes to equipment that are specific to their missions.

## Dissenting Views

Many participants were unwilling to even imagine the possibility of women being present in SOF teams:

> We like to kill things and bang women. It doesn't matter if she's qualified (E-8, Special Forces).

But several participants expressed that it all comes down to standards: if standards are gender-neutral and maintained at their current levels, and the women can perform to those standards, integration, there may be some benefits to having women in SOF teams.

> The facilities would need to be modified. But if they don't lower the standards, I don't see a problem (E-8, AFSOC).
>
> The majority of it is based on performance. If she's a liability—she's a problem. Being a good operator and a good teammate are the only things people care about (O-4, AFSOC).
>
> I think the gain of women joining could be worth it. Overall, the situation will figure itself out. If there are girls that can make it through the training, then they can make it (E-6, SWCC).
>
> It's not a gender thing, really. We have plenty of male s--tbags. If they can get a female through without lowering the standards, then they can come (E-9, SEAL).
>
> If you can do your job, good. Otherwise, you are useless to me. If she's an asset, good. If she's the weak link, then go (E-7, Special Forces).
>
> If they pull their weight, no worries; they'll mesh as one, fight as one (E-7, MARSOC).
>
> I believe the SEAL teams can adapt if anyone can, because the teams are not so strict and there is less structure in the SEALs. SEALs can work with women, but I want the standards upheld (O-3, SEAL).
>
> If you train a female well and send her to the ODA, she'll be fine. We underestimate our guys…I would have loved to have females on the teams I led and would've had a role for them (O-5, Special Forces).
>
> If they maintain the standards and do it fairly, the number of females in MARSOC would be minimal at most. If they go through the same process, the same standards, I think they'll have the same mindset and pull their weight (E-6, MARSOC).

Some participants also indicated that the integration of woman may raise standards for both men and women.

> Of course, it could be that it will raise standards. Weak men are coming through as well. Integration might compel men to perform better in order to not fail when women are passing (E-7, Special Forces).
>
> We've had males who we couldn't get rid of. S--tbags. Maybe this will raise standards (E-6, Special Forces).

Some participants indicated that they did not think women would not have a negative impact on cohesion.

> If she can talk all the s--t we talk and do all the stuff we do, why not? No harm to unit cohesion (E-6, MARSOC).
>
> We look for those who get along. I don't think cohesion will be as big an issue. It adds some extra stress, but we can work around it (E-6, MARSOC).
>
> I think they'd find a way to work with women. We have all worked with women. I don't know if it would have a huge effect (E-6, MARSOC).

Other participants believed there would be short-term effects, but also believed that younger recruits would not be as opinionated about or averse to the presence of females.

> We will lose a lot of mouth breathers, alpha males. There will be an initial loss. It will depend on how it is implemented. A green beret is a big accomplishment. But will it

> destroy your dream and goal because a woman is there? There will be an initial loss, then flatten to plane, then back up in 5-10 years. My granddad got out of the Navy in [the 1960s] with the introduction of the UCMJ. With DADT, everyone was up in arms, but what happened? Nothing. People who complained are still here. They need to pay the bills. The military is still the best out there. The hard core will get out, the rest will stay in (W-2, SF).

Some participants also cautioned that the same concerns were raised when gay service members were integrated.

> We live with gays on the teams, it works. Some of the same concerns were expressed about them (O-5, Special Forces).

> I'd say it's going to go down the road a lot of others have. Like the gays in the military piece. Guys fought it forever, and there have been little to no repercussions from it (E-6, MARSOC).

The following section discusses focus group participants' views on the potential impact of integration on recruitment and retention of both males and females.

## Potential Impact on Recruitment and Retention

Recruitment and retention were major discussion points for each focus group. Opinions on the impact of integration on recruitment and retention were divided— with some foreseeing a significant drop in numbers and quality of SOF personnel, and others predicting no significant effect.

### *Recruitment of Males*

Many participants were concerned that integration would lead to a decrease in male recruitment. The reasons proposed for this decrease centered on the belief that men attempt to join these organizations because they want to be part of an elite unit. Whether due to the presence of women or an expected lowering of standards, there are concerns that these units would no longer be seen in the same light by prospective applicants.

> It will be bad for recruitment. I personally would choose a unit without females. I was looking for a brotherhood when I came here (E-5, Rangers).

> You have to make people feel special to do jobs that most people would not want to do. That's been understood through history. We didn't join for the money, we joined to be elite. If that goes away, how do you bring people in (E-5, AFSOC)?

> I think there could be drops too—in particular from males. How do you get guys through the door if this is a rating open to both females and males? I think it could be an issue. 'Geez, how special is it if she can do it' (E-9, SWCC).

> There's plenty of talk about a mass exodus once the first female puts on a trident (O-3, SEAL).

### *Retention of Males*

Concern over the retention of males was discussed in every focus group, but there was not consensus on whether there would be a significant long-term impact. Several themes emerged from these discussions.

#### Exodus of Experienced Personnel Due to Adjustment

The most frequently cited concern was a loss of current SOF personnel.

> If people are forced to accept this, guys will leave. They will take a lot of experience and leadership with them. We'll definitely miss that experience (E-3, Rangers).
>
> One reason I'm getting out next summer is because I don't want to deal with this. This is politically motivated and I think they'll regret it. You will lose experienced leaders (O-3, Rangers).
>
> If females are in support roles, little to no impact. If in a combat unit, we'll see some disillusionment. There will be a period of turbulence, probably 1-3 years. There are definitely some people who would bolt. There would be culture change, and there would be diminished capability (O-4, Rangers).
>
> [The guys who leave], that will benefit us. As we move away from kinetic operations, there'll be guys who get out because all they want is to shoot guys in the face (E-7, MARSOC).

There was also concern expressed about the loss of experienced personnel who are close to retirement age and may not want to deal with the numerous changes that integration would bring. In one focus group of Navy SWCC personnel, an informal poll indicated that 11 of the 17 senior enlisted personnel present intended to retire if females came to their unit. The loss of combat experienced personnel in particular was cited as a major concern for several participants.

> We're at a generational change. You have an old generation fighting for 13 years, and now a new generation. Like when they started allowing homosexuals in the military, a bunch of people left, said: I didn't sign up for this crap. You're going to have people who have been fighting for 13 years that will leave (E-6, MARSOC).

#### Adverse Impacts on Families

Many participants voiced concerns over what integration would mean for their spouses, and several predicted that tension at home would also drive a decrease in retention. Close quarters on deployment, long hours for training, and close physical contact during training and on deployment were cited as problems for many of the spouses. Several participants stated that their spouses were even upset that these focus groups were taking place. Participants based much of their concerns on past experience with the introduction of CSTs.

> For retention, we'll see a decrease. Lots of homefront problems. The high drama rate of CSTs had an effect. The spouses weren't happy and a lot of guys will bolt (E-7, SF).
>
> Me, I'm getting out. I will walk away from years of service. A lot of guys will do that. There's no way I'm going to explain to my wife why I'm going to share a hotel room with a woman. I'm not dealing with that. I deal with enough s—t. Them or me—that's the way it works (E-6, MARSOC).

#### Lack of Faith in the Organization

Finally, some participants cited a retention problem that came not from the integration itself, but from the imposition of the policy in a top-down manner. Many of these individuals believed that officials with an incomplete understanding of the environment that SOF operates in are formulating policy for political reasons or that apply to other parts of the military but not SOF. These participants believed that many would interpret integration as a breach of trust.

> It wouldn't come from animosity for women, but the lack of support from the top. If they're going to weaken the teams simply for political reasons, or to help their career over making the teams operationally stronger and safer, why be a part of that organization (E-5, SEAL)?
>
> We have little faith because we don't see the implementation plan or risk mitigation. How do you deal with issues like periods or pregnancies? What's the plan (E-4, Rangers)?
>
> The FETs are good because it's impossible to talk to women in the Middle East. It's just that I don't want the standards or unit cohesion to be degraded. I also distrust the leadership on this issue because standards have changed in the past when leadership said they wouldn't (E-6, SWCC).

### *Recruitment of Females*

In addition, many participants voiced skepticism that an appreciable number of women would be interested in joining SOF. For many this was not a concern. But for those who were concerned with pressure to push females through the training pipeline, a low number of applicants was viewed as increasing the likelihood that lower-quality operators would be sent to SOF units.

> Women aren't exactly beating down the doors to come to MARSOC either (E-6, MARSOC).
>
> Gender neutral will mean standards will be lowered. They will lower standards when they don't get the numbers they want from the training process (E-6, Rangers).
>
> Standards will go unenforced (if not lowered) to make good graduation numbers. Relaxing those standards will not serve the female well when she gets to the team. She will be disadvantaged. That will foster animosity (O-5, Special Forces).
>
> Because politicians with an agenda want to see female numbers pass selection and the schools, the quality is going to go by the wayside (E-6, MARSCOC).

### *Retention of Females*

In addition to retention concerns with males, many participants believed that females who did join SOF units would have low retention rates. Some argued that these rates may be low enough as to render their training not cost effective.

#### Family Timeline

One potential reason for low female retention that was cited in several groups was the timing of a military career and the desire for a family that many individuals would have. Many

participants considered it unlikely that a female with a family would attempt to join SOF, therefore applicants would likely be younger. Several also believed that the physical effect of having children and the time away from the unit for maternity leave would be a barrier to continued operations. Finally, many speculated that the demands of SOF operations would be difficult for a female with young children.

> I'm very concerned about retention of females. A young female recruit would probably want a family after six years or so. That would be a lot of time and money invested in training for someone who separates at that point (E-7, AFSOC).

#### Long-Term Physical Toll

Other concerns for retention of females were centered on the long-term effects on the body of SOF missions and training. Numerous participants cited their own recurring injuries and speculated that a person with smaller frame and bone density would have difficulty withstanding the physical stress for more than a few years.

> There will be problems with retention. Women will have more injuries. Women might meet minimum standard, but they can't meet the average. They can't do well in a competitive environment and they can't be part of the elite. Emotionally this will depress them. They will leave (E-7, Special Forces).

> There will be long term effects on women. We have guys that can no longer walk. Small guys get destroyed. A 150 pound woman is a big woman, but a small guy. Everyone carries the same weight. I can see women making it in 20 years. They may last half the time, but cost as much. So we will spend twice as much money to end up in the same place (E-7, Special Forces).

The following section discusses the implementation advice that participants offered to policy makers during the focus group discussions.

## Advice to Policymakers Regarding Implementation

Focus group participants were asked what advice they would give the USSOCOM leadership regarding the potential implementation of integrating women into SOF specialties and units. In almost all of the focus groups, the initial response to this question was a definitive "don't implement it because we're against it."

> Sack up. Ask for the exemption. Be a leader, not a politician. I don't care about females in combat—we're different (E-7, SEAL).

> Ask for the exemption. Create another pipeline. Define the requirement that needs to be addressed (E-8, SEAL).

However, when coaxed, many offered advice on implementation as well as the roles that females could and should fill within the SOF community.

### *Advice Regarding Standards*

Many participants were concerned with the maintenance of standards in their communities and stated that their primary advice would be to leave the standards in place. Some were afraid

that a separate set of standards would be developed for females, leading to a decrease in morale and trust in the teams. Others believed that pressure to ensure a required number of females passed would lead to the lowering of standards and a decrease in operator quality across the board.

> I think it depends on what the standard is. If the standard is dropped – if we grow the force, we have to drop the standards. If they want to add 5% Special Operations on the ranks – there's always an exception to the rule. I've been outperformed cardiovascularly by women. But if the standards are dropped, morale will go down, as will cohesion. Retention will be negatively affected. Men will leave (E-8, MARSOC).

If the standards were maintained, several participants saw significantly fewer problems with integration due to the small number of females expected to qualify. The communities could continue to screen and select personnel without interference and thus avoid many of the negative consequences that have been discussed.

> Maybe we are overanalyzing this. Open it up, maintain the standards, allow us to weed out the ones who can't make it (O-5, Special Forces).
>
> This is all contingent on standards. As long as you have people capable of doing the job, you'll get likeminded people (E-7, Special Forces).
>
> If standards were maintained and she's able to get into team, then guys who got in, they all know what they've done to get there. She would have respect. She'd have the mindset. They'd have respect for her (E-6, MARSOC).

### *Training Pipelines*

There were substantive concerns that the nature of initial SOF training and the adversarial approach taken by instructors would result in equal opportunity or harassment claims by females. Many believed that instructors would be so fearful of this that they would go easy on female students. Additionally, some felt that the females would be disadvantaged as they would have no support structure on which to rely during the mental, emotional, and physical challenge of completing the training pipeline.

> How are we going to train them? We will need a female cadre, but where do we get them from? What if the student is the only female and needs to speak with someone (E-7, Special Forces)?

One solution that was proposed was to assign female "chaperones" to the pipeline, whose sole responsibility would be to monitor the female students. The chaperones would be a witness for both instructor and student but would not have any active role in the training itself. These personnel could be employed until females rotated back to instructor billets through normal career progression.

> You'll need some sort of chaperone for the training process until enough females can become instructors (E-7, Special Forces).
>
> I wouldn't mind chaperones. You need a witness during the training process to make it fair and avoid 'he said/she said.' That way, no one loses their job (E-7, Special Forces).

> I would tell [leaders] not to change any training, just let the women in, and have observers to see the training before and after the women are brought in (O-5, SEAL).

Additionally, there were many who advocated that females involved with SOF go through a more rigorous training pipeline – even if it is separate from the current ones used to train males. While this may not result in the awarding of a tab or insignia, some participants believed that this raised competence in key areas and also instilled some esprit-de-corps amongst the graduates.

> The NSW females have been received pretty positively. The Army groups I've worked with have not been beneficial. The difference is selection and screening. The Army, took females out of big Army, put them in units, without doing screening or training. We saw that, learned from mistakes. Asked for all volunteers, so no woman was forced into that deployment. And we did training, getting beat on the beach in Coronado before they moved into the pipeline for deployment. So there's a little more to females in NSW (W-3, SWCC).

### *Phased Implementation*

Several participants advocated implementing the policy in phases once a final decision was made. Despite concerns that joint operations could be inhibited by such a move (voiced primarily by AFSOC participants), many believed that a "trial run" was necessary to identify implementation challenges.

> If you had to do it, then don't just blanket it. Don't do it at all, but if you are, don't just say, 'open the door.' Make it for select billets that women are specifically better at or more suited to (E-6, MARSOC).

Some participants mentioned that certain SOF components were suitable for these trials, though none expressed the belief that their own community was one of these.

> Phasing is most appropriate; the impact will be less on other branches. They should start in some other branch where there is no guarantee of combat. Find out what the benefits are and then phase it into SEALs (E-4, SEAL).

#### Begin with a Pilot Group

Other participants suggested beginning with a pilot group to help identify requirements as well as the capabilities of women.

> For a small target, let's develop a small SOF female unit, identify requirements, and how it can support SOF. Then you can start to expand where you think this needs to go, rather than putting them in units right out of the gate (W-3, SWCC).

> Have they considered running a test? Get the most fit CrossFit female they can find and see if she can do the training. My biggest concern is the physical stuff. Need to address that first (E-7, Special Forces).

#### Begin with Conventional Forces

Another view was that conventional forces should be fully integrated before SOF units. This was particularly prevalent in Army Special Forces, where many personnel are recruited from other parts of the Army.

> Use a tiered approach. Put women in infantry first. Use it as a gateway. Enter SOF later. This is a progressive approach. Can't it start with conventional forces? If it has to happen, use tiers (O-4, Special Forces)
>
> Maybe after 10 years in the 82nd, maybe they can crack the nut on these problems. Then move them up to SF (E-7, Special Forces).
>
> Let it start in the conventional army. That's what I had to do to join SF. Start the females there (W-2, Special Forces).

This view was also mentioned by MARSOC personnel since MARSOC also recruits from the Marine Corps—in particular the infantry, which is currently closed to women.

#### Begin with Officers Only

Some participants believed that starting the integration with officers would work, as has been done in other cases including with submarines. Some believed that the social separation between officers and enlisted as well as the difference in tasks may be the most workable solution.

> They'll probably come in as officers…They'll do planning and things like that (E-7, Special Forces).
>
> An O-3 gets respect by virtue of rank, not experience. That's harder with an E-7 or E-8 (E-7, Special Forces).[140]

Other participants saw the differences between officers and enlisted not as facilitating integration, but as being an additional complication.

> Simultaneous integration would work best. There's already a barrier between officers and enlisted, this would just be another. There would be strong negatives (O-4, AFSOC).

In some SOF communities there would likely be little impact. Though not specifically asked about this idea, SEAL participants stated on several occasions that their community is based only on experience and not rank. It is therefore unlikely that an implementation using officers first would be effective.

## Advice Regarding Potential Roles for Women in SOF

In addition to advice regarding implementation, participants offered advice about the roles that females could serve within SOF that they felt would enhance capability.

### *Pooled Resource of Niche Enablers*

Though highly resistant to the inclusion of females on the teams themselves, every focus group discussed the benefit of having females with specialized skills available for specific missions including intelligence, access to female populations, and taking custody of female detainees.

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[140] This individual was then reminded by another participant of the impact of having the senior team member be a female when conducting key leader engagements with foreign partners. He then reversed his opinion.

The dominant perspective across the focus groups was that women in these roles should be enablers, not organic to SOF teams. These women could be available to be attached to SOF teams in need of their particular skill sets.

> The motor pool concept could work. The idea behind CST is legitimate--can get access/info. But we were training on our previous mission (O-3, Special Forces).
>
> That's the beauty of enablers. They enhance ODA capability, male or female. They come, then they are gone. But long-term effects of placing them in ODAs will be very detrimental (E-9, Special Forces).
>
> We need to take a look at the entire organization. There are 60 specialties here; only three are combat arms. In MOSs like intel and personnel, there are benefits. The 35 series [Military Intelligence] has large numbers of females. We're missing out on some really good people by excluding them (E-8, Rangers).
>
> If we look at our core mission sets—small units, long durations. Women just would not be value added. But when we go to outward fringes, women are certainly value added (E-9, SWCC).
>
> There are women that have those special niches that would fit. I think that if that's the way we're going to go forward with this, that's the way it should start. Figure out where they can fit. Separate program. See where we can employ them (W-3, SWCC).
>
> I've worked with females in special operations. The dynamic does change. But it's no different than situations with females already in theater. With proper employment, they are as or more effective than men in some circumstances. But there's a difference between 'Need female 18B on an ODA' and 'having female 18Bs available to support' (O-5, Special Forces).

Many participants also suggested building off of the roles that women already occupy in SOF.

> We have females in SOF. We need to expand their role and educate the force on how they can be introduced and utilized. ODA members should know how to utilize all SOF assets. Don't focus on how to make them operators. Focus on expanding their role (O-4, Special Forces).
>
> Yes, women have access and placement. But we already do that because we already have the mechanism in place. The way ahead for me is to keep the status quo (E-8, SWCC).

Many participants expressed that they had positive experiences with CSTs that were attached to their units. Having these specialized teams available to be utilized by the mission commander enjoyed wide support across the services and pay grade groups.

> If anything, a FET should broaden their scope and operation and embed themselves with different boat teams to familiarize themselves with SOPs, so if the need arises to have a female on board, we can pull one from a FET (E-7, SWCC).
>
> Look at the CST program and beef it up. Raise their standards for that program. We should be able to call on them when needed. Make it so they can go with any team. Forcing females on Special Forces ODAs is not the answer (E-7, Special Forces).
>
> The force needs females. CST was not a bad program. But they were attached only. The pipeline is ideal. Train them to be pulled when needed and attached to a units. The ODAs will pull them for specific requirements (E-9, Special Forces).
>
> Changing CST would address a lot of issues—avoiding integration and adding credibility to the CSTs with better training (E-5-Special Forces).

> FETs work well. They are all-volunteer, have no physical standards, and rudimentary weapons training. You could expand that and give them their own pipeline. They still wouldn't be SEALs, but would be effective. SEALs aren't broken, so we don't need this fix (E-4, SEAL).

### Create an All-Female Unit and Training Pipeline

Several participants believed that creating all-female units was a possibility. These units could be used as pools from which specialists could be drawn to support specific mission requirements.

> Pure female ODAs, housed in their own company away from men, could work. Can't do the missions we have talked about necessarily; but maybe intel (E-7, Special Forces).
>
> A female unit with high standards that we can pull from would be good (E-4, Rangers).
>
> If you want to incorporate women as seamlessly as possible into Naval Special Warfare itself, the smartest thing to do is create an independent organization. So you have SEAL, SWCC, and this special unit. That way, they have the requirements they met, respect for being in NSW, and SEAL and SWCC can get all the benefits and enhancements women can bring (E-5, SWCC).
>
> I think a separate pipeline in which women were trained well, but not expected to man boats or kick down doors would have some benefit (O-4, SWCC).
>
> Here's how you can solve the problem without losing the support of the guys: take CST, make it part of SOF—but for women only. They will get to do stuff, in the same places, but without the green beanie (E-6, Special Forces).

When asked whether an all-female unit should receive a trident, one SEAL responded:

> No—they could get a mermaid with two guns, crossed (O-3, SEAL).

## Conclusions

There was a great deal of unanimity of views and similarities in issues and concerns raised by participants across our focus groups. The overwhelming majority of participants indicated that they were against the integration of women into their small teams for a variety of reasons. The main concerns expressed by focus group participants across SOF components included:

- Potential impact on standards,
- Integration is a political decision and SOF is being used as a social experiment,
- It is unclear what additional capabilities women would provide,
- Ability of women to do the job,
- Favoritism,
- Potential impact on cohesion,
- Women may be a distraction,
- Potential impact on families,
- Female medical issues,
- Issues related to deployability of women,
- Potential impact on working with some foreign partners,
- Potential impact on the image of SOF teams,

The main concern among participants was that physical fitness standards should not be lowered or changed. However, most participants were skeptical that women could meet current standards, and that as a result, there would be political pressure to lower standards. Even among participants who felt that women may be able to meet current standards, many felt that the other costs of integrating women into SOF teams are too high.

> I think we're going to find some badass women out there—very good athletes. I think it comes down to all the other things we discussed in here. The grenade you're going to throw into operations: pressure on the force, families and readiness. I think that's what will be impacted the most inside SOF (E-9, SWCC).

Focus group participants also offered the following advice for SOCOM leadership as they consider potential implementation:

- Maintain standards
- Consider pipeline issues as integral to the integration process
- Implement in phases using a pilot group, or beginning with particular ranks or MOSs

Participants also offered some ideas to SOCOM leadership about potential roles that women could fill in SOF. While most participants did not see a role for women in SOF teams, many did think that women could be used in SOF as enablers in key niche areas such as intelligence, reconnaissance, and access to certain populations. Many participants indicated that a pooled resource of these female niche enablers might be very helpful. In addition, many respondents indicated that another favorable option is to develop all-female units that have their own standards and training pipelines that could then augment other SOF teams as needed. So while most participants were against the integration of women as organic elements of small SOF teams, many were receptive to utilizing them as attached enablers for very specialized roles.

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# Part III: Potential Future Pathways

The rescission of DGCDAR has the potential to open approximately 15,500 SOF positions that are controlled by USSOCOM that have been closed to women by specialty: the Air Force's Combat Controllers (CCTs) and Special Operations Weather Team specialists (SOWT); the Army's Special Forces (SF) and Rangers; the Marine Corps Critical Skills Operators (CSOs), and; the Navy's Sea, Air, Land commandos (SEALs) and Special Warfare Combat Crewmen (SWCC). As the previous chapters in this report have highlighted, potential integration of women into SOF entails a number of issues pertinent to the effectiveness of such teams, both from the perspective of physical standards as well as ensuring the readiness, cohesion and morale essential to high performing teams.

The purpose of this research was to inform USSOCOM about the depth and extent of potential challenges to the integration of women into SOF positions so far closed to women as one input to USSOCOM leadership making a decision on how to proceed. As such, we have focused on the potential challenges and problems to the full integration of women into SOF and placed the potential policy change in the context of previous integrations of out-groups into the military. We also note below that all of the challenges we identified have come up previously, none of them proved insurmountable, and the key to successful prior integrations was the implementation program. If USSOCOM makes the decision to proceed, lessons from the previous integrations may be useful to draw on in informing a USSOCOM implementation plan. Below we sketch out the basic guidelines for such an implementation plan; we keep the guidelines purposely concise. Expanding on these guidelines is an appropriate step after a policy decision is made, and if such a decision is in the affirmative.

This report has assessed the extent and breadth of potential challenges to the integration of women into SOF units. Based on our analyses, the challenges facing USSOCOM, should it decide to integrate women into SOF units, are real and multifaceted, but none of them is insurmountable. The key to successful integration of excluded groups is the implementation process. A successful integration of women into SOF occupations will require transparency, effective leadership and communication, monitoring of progress, and openness to innovation, flexibility, and adaptability. Even with all of the above, the process still is likely to face major challenges because of the depth and scope of opposition and concern among the force. As USSOCOM considers near-term and long-term integration priorities, the mechanisms put into place will need to be flexible enough to accommodate learning and adjustments through strategies such as phased implementation or systematic experiments. Finally, putting the systems in place to enable the collection of the appropriate data throughout the integration process will ensure that progress can be tracked and that improvements can be made over time. In chapters 7 and 8, we review our main findings, present our final observations, and identify the

recommendations that flow out of our findings for USSOCOM leadership regarding the potential implementation of the gender integration of SOF specialties and units.

The issue of gender-neutral standards is a critical component of successful potential integration of women into SOF. It is the single most important issue to currently serving SOF personnel and it has ramifications for the effectiveness of the force. Chapter 7 provides a framework for USSOCOM and the SOF service components on establishing gender-neutral standards. This framework is designed to enable military services and SOCOM to set their standards in line with the guidance on the lifting of DGCDAR while achieving maximum mission performance. The framework is based on a six-step approach that builds on best practices applied to civilian organizations and federal agencies, and provides conceptual clarity for the service components. The six steps are:

1. Identify the physical demands and requirements of the job
2. Identify potential screening tests
3. Validate the tests, and select those with the highest validities and least adverse impact
4. Establish minimum test scores
5. Implement screening
6. Confirm that the tests are working as intended

This process summarizes a comprehensive and widely accepted approach for establishing standards relevant to gender integration and the selection of SOF personnel. Although the framework has implications for gender integration, it is based on scientific practices that have emerged over several decades from research with civilian and military organizations that select, train, and qualify the best individuals for the job—whether male or female. Even if the service components adopt this approach, challenges are still likely to arise during implementation.

First, service components already have existing selection tests and standards for SOF specialties. These standards were developed before women were eligible for SOF specialties, but they are still relevant occupational standards. These standards need to be evaluated against the remaining steps in the process—validation, establishing minimum test scores, screening implementation applicable to both men and women. The six-step process can serve as a valid checklist within existing processes.

Second, some existing physical tasks and activities are not designed to measure critical physical abilities, but instead are used to measure other important characteristics such as creativity, critical thinking, teamwork, leadership, perseverance, and persistence under stress. These tasks and activities are critical to identifying and training special operators, but they are also difficult to validate. Measuring such characteristics indirectly through performance on physical tasks and activities is more difficult than identifying and measuring physical job demands explicitly required by the mission but it is possible, as long as the effort is systematic and explicit.

Third, each of the service components has different amounts of resources and expertise available for executing the required steps for validation. Conducting a job analysis entails

substantial upfront costs, whether there are only a few or many service members in that specialty, which means that some service components may be stretched thin in terms of resources available. In order to carry out a thorough job analysis for each specialty, the service components need to consider the number of specialties being reviewed when dedicating time and staff resources and -- whenever possible -- leverage each other's resources and expertise for conducting task and physical demand analyses.

Fourth, the time and resources required to conduct a comprehensive job analysis and to fully evaluate the physical ability tests and standards currently in place to ensure that they are gender-neutral is a resource-intensive process. Validation will take more than a few months of effort; it is a long-term process, which requires constant attention to ensure that the tests and standards are working as intended. Expectation management throughout the process will be critical. A genuine attempt at validation that meets intermediate timelines and milestones but is long-term in orientation is preferable to a quick and potentially incomplete validation that is open to questioning and difficult to defend.

Fifth, as our survey and focus group analyses have identified, there are many concerns about the process of establishing gender-neutral standards—that the outcome of the process is already pre-decided, that there is pressure from outside DoD to reduce standards if women were unable to qualify, that few women will be able to meet the standards to qualify, or that few women who might be capable of success will be interested. It is critical to communicate throughout the SOF community that the validation process is based on widely accepted scientific principles to ensure that the most capable individuals are selected, its purpose is to be unbiased and objective, and ultimately is meant to improve organizational and mission effectiveness.

Finally, changes made to the current physical ability standards may be viewed negatively by personnel within the SOF community. Specifically, women who qualify under any "new" standards may be perceived as less competent and less trustworthy than already serving special operators because they have not proven themselves capable of passing the old standards. There is potential that such beliefs might lead to lower morale and undermine faith in leadership and unit readiness. Ideally, the service components would head off such concerns and deal with them directly and proactively. SOF service components and USSOCOM should consider a strategic communications plan that outlines the process and its goals clearly.

When looking across all of our study findings, the following areas are particularly relevant to informing USSOCOM's implementation planning regarding the potential integration of women into SOF specialties and units:

- Leadership is key to integration success. Most of the concerns among SOF personnel are leadership challenges. These include command climate issues such as the tone set during the integration process, as well as enforcing good order and discipline to prevent issues of misconduct that can have a negative impact on cohesion. Leadership can also put in place policies to identify quickly problems that may arise during implementation.

- The implementation process is critical to long-term integration success. To ensure long-term viability, USSOCOM will need to put in place practices to promote the successful integration of qualified women. This includes developing and fostering an equitable organizational culture, which includes providing ample opportunities for women to demonstrate their competence. Associated with this, USSOCOM and the SOF service components will need to establish practices to limit the social isolation of women in SOF.
- Valid, gender-neutral standards can facilitate integration. Much of the opposition to integrating women into SOF specialties and units is rooted in concerns regarding mission effectiveness (e.g., about women not being able to physically perform the necessary tasks for the job). However, these concerns can be addressed by establishing and validating gender-neutral standards and implementing training programs that prepare female candidates to meet those gender-neutral standards.
- Targeted recruitment and adequate preparation of female candidates is needed. Many of the concerns expressed by SOF personnel center on doubts about women being able to perform adequately the necessary physical tasks. Our findings also indicate that the low assessment of the abilities of women is often based on experiences with military women who did not have the same training and preparation as men. Providing female candidates adequate preparation to meet gender-neutral standards could go a long way in enabling women to earn the respect and trust of their SOF teammates.
- Deliberate pace of integration is important. Given the differences in mission, equipment, operational environment, and culture across SOF components, USSOCOM may need to consider a phased integration approach. Such an approach would allow USSOCOM to monitor the integration process and make adjustments as needed. This type of approach also could yield important information on the risks and benefits of integration that then could be applied to subsequent integration efforts as they are expanded.
- Integration progress needs to be monitored and assessed over time. Monitoring and assessment will allow for quick identification of problems and addressing them on a timely basis. The overall measure of outcome would be unit performance. Potential categories to monitor over time include: unit readiness, female career development, attrition, rates of misconduct, and cohesion and morale.
- Expectation management is a critical component of success. One of the most important aspects of expectations management is the number of women that are expected to join SOF if these positions are opened to them. The experiences of allied militaries indicate that those that have general purpose combat arms positions open to women also have few women serving in those positions. From this perspective, the anxiety felt by SOF personnel about a large influx of women in a short period of time and a consequent altering of intra-unit dynamics may be unfounded. The process may be gradual and a change may come over a generation.

Even with all of the above, there are still other complex concerns that we came upon in the course of our research; none of which involve easy solutions. For example, there may be challenges to mission effectiveness from deploying women to work with local and irregular forces in countries where there are strict gender roles and segregation of the sexes and prevailing norms and customs are to view women as not equal members of the society. There may be workarounds to such challenges but these challenges are likely to remain.

Given the extreme physical requirements associated with SOF, if USSOCOM opens up all the SOF occupations to women, the number of women likely to enter SOF is likely to be limited in the foreseeable future. But it is not a given that all SOF require such high levels of physical prowess and the importance of physical prowess in the fulfillment of SOF missions may change in the future. In fact, future SOF operating concepts that imply greater persistent forward presence, interaction with partners, and more preparation of the environment, all entail potential additional roles for women in SOF. Our survey and focus group findings indicate some receptiveness among SOF personnel to a highly trained cadre of SOF enablers, including females, that would be a repository of niche capabilities and could be utilized as needed to exploit opportunities. These enabler roles, open to men and women, could provide additional mechanisms to recruit highly skilled and motivated personnel to SOF.

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# 7. A Framework for Establishing Gender-Neutral Standards for SOF

The issue of gender-neutral standards is a critical component of successful potential integration of women into SOF. It is the single most important issue to currently serving SOF personnel and it has ramifications for the effectiveness of the force. This chapter provides a framework for USSOCOM and the SOF service components on establishing gender-neutral standards that are mandated in policy guidance documents.

In chapter 3 we discussed how males and females differ in their physical abilities. Some of these differences matter for understanding the likelihood of entry into SOF, specifically for specialties that require high levels of strength, power, and aerobic endurance to meet the extreme physical demands of operational missions. Potential gender integration raises unique questions about the gender-neutrality and validity of existing tests and standards for selecting females. For example, using standard fitness test scores that have been adjusted based on gender and age would be not be gender-neutral and would be inconsistent with current directives. Even when standards are based on job requirements, it is possible that some tests may not work equally well for women as they do for men. On the one hand, women may perform well on some tests but perform poorly on job tasks. This may occur for tests that have been documented to have a body mass bias (Vanderburgh et al., 2011). That is, having a smaller frame may be an advantage when performing pull-ups or running but may be a disadvantage when having to perform a road march while carrying heavy loads. In contrast, it is possible that women may perform poorly on other tests yet perform physically demanding job tasks successfully. This may occur if women use different abilities to get the job done. In either case, updating prior validation studies using the proposed framework will help to maintain high levels of performance while ensuring that tests and standards are equally effective for both males and females.

So, how can the military services and SOCOM go about ensuring that their standards are in line with the guidance on the lifting of DGCDAR and are set at a level to maximize mission performance? To address this question, we first recognize the following points:

1. SOF currently has established standards, which have evolved to meet mission requirements and ensure that the best operators are selected;
2. In the context of gender integration, the effectiveness of current (or revised) tests and standards is not known, therefore a common framework (presented below) to evaluate current and/or revised tests and standards is recommended;
3. There is no one single method for establishing the validity of a selection system. Many practical factors (e.g., safety of research participants) may limit adopting an ideal scientific approach;

4. SOF assessment and selection systems are designed to achieve multiple objectives, These may include ensuring operators have both the necessary physical and mental attributes needed to succeed in an environment, characterized by uncertainty, isolation, extreme physical demands, and danger;
5. Minimum standards are meant to define the level at which individuals will not be considered for assessment, selection, training, etc. Individuals selected for SOF specialties often exceed the minimum standards; therefore, the performing at the minimum standards on a test does not guarantee selection or consideration for a SOF specialty. When individuals who meet the minimum standard are not considered, special attention should be placed on evidence demonstrating a monotonic relationship between test scores and job performance. That is, individuals with higher test scores should have a higher probability of success.

To guide the military services on ensuring its standards are gender-neutral, RAND researchers recently developed a comprehensive six-step approach that summarizes professional and legal guidelines, which apply to civilian organizations and federal agencies. These guidelines include the Principles for the Validation and Use of Personnel Selection Procedures (Society for Industrial and Organizational Psychology, 2003), Standards for Educational and Psychological Testing (American Educational Research Association et al., 1999), and the Uniform Guidelines on Employee Selection (Equal Employment Opportunity Commission, 1978), which was jointly adopted by the Equal Employment Opportunity Commission, the Department of Labor, and the Department of Justice and has been included into the Code of Federal Regulations (29 CFR Part 1607). Recognizing that the U.S. military is not required to adhere to these regulations, using a framework based on these well established guidelines will provide conceptual clarity to the efforts of the service components, will enable easier sharing of relevant information across components, and will help identify areas of concern. Furthermore, this framework is provided with the understanding that SOF already have established standards and that each Service may have conducted previous studies documenting different forms of validity evidence. Nonetheless, the Services can use the framework to evaluate and measure their progress, and ensure relevant documentation is provided in relation to each of the six steps.

We begin this section with definitions of relevant terminology to establish a common baseline, we then turn to an overview of the six-step process with emphasis on the requirement to establish the validity of occupational tests and standards, and finally conclude with a discussion of implementation challenges.

## Why Standards?

What is meant by the term "standards"? *Standards* refer to set criteria that must be met to enter or remain in an occupation. Standards can be applied at multiple points in time to determine who becomes and remains a special operator. For example, standards may be used

during recruitment, selection, assessment, training, and reenlistment. A minimum score on a physical test used to determine who is qualified for a job is one example of an occupation-specific entry standard. An example of a standard applied during training is a gate or hurdle that determines if a candidate is eligible to move on to the next phase of training. If training gates and hurdles are necessary for a given occupation, the standards for these decision points should be the same for both men and women. Although it's important that all standards used to make decisions about a person's career are tied to occupational requirements and are gender-neutral, the standards the services should focus on first are those used to determine who qualifies for training, who is allowed to pass each hurdle in training, and who is ultimately placed on the job as a special operator.

*Gender-neutral standards* are standards (e.g., minimum scores on a physical ability test) in which gender is not a factor in decisions about the minimum qualifications for a job. That is, the same standards apply to both men and women assigned to perform the same job duties. Job-related or occupationally relevant standards for SOF should be gender neutral, as the skills or abilities needed to perform essential job duties will be the same regardless of who is performing them. For example, if evidence from a validation study (discussed in a subsequent section) shows that successful operators assigned to Job X must be able to run 1.5 miles in 10 minutes, then everyone, regardless of gender, must meet this requirement. Some organizations adjust times for men and women based on known physiological differences; however, this type of adjustment is not gender-neutral because different standards are set for each gender. For example, although research studies have shown that women on average have less aerobic capacity compared to men, for a gender-neutral standard there would be no adjustment made based on gender. If aerobic capacity is critical to the job, the minimum aerobic capacity needed on the job should be specified and everyone should be required to meet that minimum regardless of gender. The bottom line is that gender-neutral standards should be based on job-related requirements and these standards should be the same for both men and women.

All training activities should have clear objectives and should be tied to occupational or operational requirements. At a broad level, training activities can be used for *developmental purposes* or for *screening out candidates* who would make unacceptable operators. If the purpose of the training activity is to screen out candidates, then this training activity needs to be gender-neutral and the same standards must apply to both men and women. That is, women would be expected to march with a rucksack the same distance, carry the same weight, and complete the same training objectives in the same time as specified for men. Training designed for developmental purposes can be individualized to maximize fitness gains in a safe and effective way. Such training is gender-neutral to the extent that training activities and goals are based on an individual's current fitness levels rather than their gender status.

An important thing to understand in the context of setting gender-neutral standards is the concept of *bias*. Bias is "systematic error that differentially affects the performance of different groups of test takers" (American Educational Research Association et al., 1999, p. 31). For

example, bias can occur when a test is administered differently for men and women. This type of bias can be minimized by standardizing test administration conditions and instructions, and by training and monitoring test proctors. Another type of bias, predictive bias,[141] refers to systematic error that occurs when a test/standard is a better predictor of performance of one group (e.g., men) than another group (e.g., women). In other words, a test would have predictive bias to the extent that more accurate decisions are made about men's qualifications compared to women's qualifications. For example, a test resulting in average gender differences that does not correspond to similar gender differences in job performance would have to be further evaluated for test bias. However, simple average difference in men and women's performance on a test is not by itself an indication of test bias. On the contrary, gender differences on many physical ability tests would be expected because there are average differences in many underlying physical abilities (Courtright, et al., 2013).

## Types of Tests and Standards

There are two broad objectives for the use of physical ability tests in the workplace: 1) predicting health and fitness, and; 2) predicting job performance. Many physical ability tests including those conducted by the military (i.e., Air Force Fitness Assessment, Army Physical Fitness Test, Marine Corps Physical Fitness Test, Navy Physical Readiness Test)—are designed to evaluate overall fitness, decrease the risk of negative health outcomes (e.g., cardiovascular disease), and instill a culture of fitness. Scores on these tests are generally adjusted for physiological differences across age groups and between men and women. In other words, for men and women and individuals of different ages the same score would be interpreted differently. For example, to achieve a perfect score on the 2-mile run for the Army Physical Fitness Test, a 19 year-old male has to finish in 13 minutes and 0 seconds, while a 30 year-old female would have to run it in 15 minutes and 48 seconds. General fitness or health assessments do not need to be gender-neutral unless they are used to make decisions about the qualifications of operators for specific occupations.

The second broad type of fitness test is designed to ensure individuals can perform the essential functions of the job and meet mission demands. These occupationally relevant physical ability tests and standards can be expected to differ across occupational specialties because each specialty has different physically demanding tasks and duties. Within a specialty, given that everyone at a particular grade level should be capable of performing basically the same tasks and duties, the physical ability standards at that level should be the same for all personnel regardless of gender. These occupationally relevant fitness standards are often referred to as absolute

[141] In the event that predictive bias is found, additional analyses would be recommended to identify and address potential causes prior to implementation of the test/standard.

standards since the standard is equally applied to all individuals performing the same job. It is these physical ability tests and standards that are the focus of the following six-step approach.

### *Six-Step Approach*

This six-step approach is a way to organize and track the ongoing efforts by the service components in establishing gender-neutral standards. The definitions presented highlight some of the major factors that should be considered at each step. Full implementation and oversight of the steps should involve the participation of industrial-organizational psychologists and exercise physiologists, among other subject matter experts. It is important to understand that these steps require considerable effort, resources, and time.

#### 1. Identify the Physical Demands and Requirements of the Job

A job analysis should be conducted first to identify the physical requirements of the job. Although there are several approaches for conducting a job analysis, a task analysis is a common and defensible approach that defines all the tasks that are performed by operators within a specific job. Once all tasks have been documented, a task analysis questionnaire is typically completed by a representative sample of operators to collect additional details about the importance, frequency, duration, and the effort required to perform each task. The results from this questionnaire can provide a strong foundation for efforts to validate many different types of human resource systems such as screening criteria, training standards, and job performance/mission standards.

A similar physical demands analysis should also be conducted to identify the physical demands required during all qualification stages such as assessment and selection. These analyses should identify which training activities require physical effort, their level of effort, and their relationship to job/mission requirements. For many training activities, a direct link to job/mission requirements can be made (e.g., land navigation exercise). Other training activities, however, may require establishing an indirect link when the training activity would not be performed as part of the job/mission (e.g., lifting a log repeatedly with several other trainees). One way to establish an indirect link is to identify common underlying abilities required to perform well on the training activity and on an important job task. For example, lifting a log may require teamwork, muscular strength, and muscular endurance, which may be important abilities required to perform one or more important job tasks. Important factors to consider when establishing such indirect links include not only the similarity between the underlying abilities required by training activities and important job tasks, but also the level of those abilities required. Without adequate documentation from a systematic job analysis, decisions about the qualifications of candidates and/or operators will lack adequate justification.

### 2. Identify Potential Screening Tests

The second step in the process is to select several tests that can be used to measure the different physical abilities needed to perform important physically demanding job tasks. Two broad types of approaches are typically taken to measure physical abilities. The most direct approach is to use work samples or job simulations, which are miniaturized versions of the job. The tasks to be included in a work sample test should be selected using several criteria including the task's importance and representativeness to the overall job. Because work samples often require technical skills to perform certain tasks, tests of basic physical abilities are used more frequently as screening tests to determine readiness for training. Depending on the tasks identified by the job analysis, a range of ability tests may be selected to measure muscular strength, muscular endurance, aerobic endurance, anaerobic power, equilibrium/balance, flexibility, and coordination and agility. Prior research should be reviewed to identify ability tests that have sufficient test-retest reliability. Other criteria for selecting tests may include the cost of the test, ease of administration, and potential injury risk incurred from taking the test.

### 3. Validate the Tests, and Select Those with the Highest Validities and Least Adverse Impact

Although the first two steps can be completed with minimal guidance from experienced analysts, validation of physical ability tests and/or work sample tests will require personnel with experience designing and executing such research studies. Consequently, researchers with background in industrial-organizational psychology, exercise/work physiology, or statistics should lead the validation studies. Two of the more common strategies for validation include: a) content validity – demonstrating a linkage between test content and job (and training) content, and b) criterion validity – demonstrating a linkage between test performance and job (and training) performance. In addition to predicting job performance, criterion validity can also be used to demonstrate how well tests predict other important criteria such as training success and injuries. To the extent possible, researchers should pursue multiple strategies for validating tests and standards. In general, validation should be viewed as the accumulation of evidence to support inferences made about an individual with a specific test score. As part of the validation efforts, researchers should also examine the potential for tests to have predictive bias. For example, do the tests predict job performance equally well for men and women? Validation is discussed in more detail in the following section.

### 4. Establish Minimum Test Scores

Once the validation studies have been completed, a systematic approach should be taken to establish the minimum scores required to pass each test. Several different methods are available for establishing these minimum scores and deciding on the best method(s) will depend on several factors including the type of validation studies completed as part of Step 3. In most cases, the process of establishing minimum test scores requires expert judgment about what constitutes minimally acceptable performance on the job. Therefore, determining who should participate as

experts in this step is one of the most important decisions at this stage. In general, experts should have considerable experience in the job and should be representative of different perspectives within the job, such as duty location, pay grade, as well as demographic background (e.g., race, ethnicity). Another important factor to consider when establishing minimum test scores is whether training can be expected to produce improvements on physical abilities required to perform well on tests, future training, and on the job. To the extent that such improvements can be expected, minimum test scores required to enter training may be significantly lower than test scores required to qualify for selection as an operator.

Even though different method(s) may be used to establish minimum test scores, the objectives remain the same. That is, minimum test scores should be gender neutral, which means that *men and women have to meet the same standards* to demonstrate their capability to perform important job tasks. Test scores should not be adjusted to account for average physiological differences between men and women. These types of adjustments would undermine the purpose of establishing minimum standards that serve as an indication of one's ability to perform essential job tasks.

### 5. Implement Screening

Several steps must be taken prior to implementing new tests, including developing standardized protocols for test administration, training test proctors on how to administer and score the test(s), and preparing information materials for candidates. Once these steps have been completed, the new tests should be phased in gradually to allow for adjustments to be made to test protocols, testing materials and training for test proctors. To phase in new tests, one approach could be to continue using existing tests to make screening decisions while trying out the new tests with a few cycles of candidates. In addition to addressing any problems with the new tests, this trial period can help to increase confidence among existing operators and address concerns that standards are being lowered.

### 6. Confirm That the Tests are Working as Intended

Periodic reviews of the entire testing program will help to ensure that the tests are being administered fairly and according to standardized protocols. In addition to these checks, a system to reevaluate job requirements on an annual basis should be implemented. Any substantive changes to the job requirements should trigger a review of the tests and standards to ensure they are appropriate for ensuring operators have the physical abilities needed to perform essential job tasks. The predictive validity of the testing program should also be revisited periodically to determine if the best candidates are not only selected for training but ultimately for selection into the job.

### *Validation*

The 6-step process summarizes a comprehensive and widely accepted approach for establishing standards relevant to gender integration and the selection of SOF personnel. Although the framework has implications for gender integration, it is based on scientific practices that have emerged over several decades from research with civilian and military organizations that select, train, and qualify the best individuals for the job—whether male or female (Koppes, 2014). Validation of standards is a critical element of the framework to achieve this goal.

As described in the previous section, step three of the process for establishing gender-neutral standards is validation. Validation refers to the process of gathering, evaluating, and documenting evidence that indicates if tests and standards are useful in making decisions about someone's qualifications for a job. Validation is a scientific process best conducted by experienced scientists who can lead the research designs and analyses needed to develop appropriate performance measures, conduct the required validation studies, and establish gender-neutral, occupationally relevant tests and standards.

Validation involves a series of coordinated studies designed to address several questions, including the following:

- What physically demanding tasks are performed by special operators?
- What physical abilities are needed to perform important job-related tasks?
- What conditions affect the level of each ability required?
- What tests can be used to effectively measure the important physical ability required?
- What standards, cut scores, or gates will be used to determine qualified personnel?
- How has each of the standards, cut scores, or gates been validated?

The terms "valid," "validity," and "validation" are used here in a very specific, technical, and scientific sense. "Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests. Validity is, therefore, the most fundamental consideration in developing and evaluating tests. The process of validation involves accumulating evidence to provide a sound scientific basis for the proposed score interpretations. It is the interpretations of test scores required by proposed uses that are evaluated, not the test itself. When test scores are used or interpreted in more than one way, each intended interpretation must be validated" (American Educational Research Association et al., 1999, p. 9). A test is valid when data show that there is a scientific basis for interpreting scores from a test. One such interpretation with regard to tests used to select individuals for training in the SOF context may be stated as "individuals with higher test scores are more likely to successfully complete training."

## Strategies for Establishing Validity

In order to provide the scientific evidence required to support such interpretations, one of three types of validation strategies, acknowledged by the Uniform Guidelines on Employee Selection[142] and the American Psychological Association, should be followed:

- *Content validity*. A demonstration that the content of a selection procedure is representative of important aspects of performance on the job.
- *Criterion-related validity*. A statistical demonstration of a relationship between scores on a selection procedure and job performance of a sample of workers.
- *Construct validity*. A demonstration that (a) a selection procedure measures a construct (something believed to be an underlying human trait or characteristic, such as honesty) and (b) the construct is important for successful job performance.

The type of validation strategy appropriate for a given test and situation depends on many factors, including the type of test and how individuals' test scores are interpreted. For example, what does a score of "18 pull-ups" tell us about an individual: That the individual is capable of performing some set of job-related tasks, that the individual would perform a set of job-related tasks better than an individual performing fewer pull-ups, that the individual is less likely to drop-out of training, that he is less likely to sustain an injury, or that the individual is dedicated? Although all of these conclusions may ultimately be shown to be a valid inference from the test score, it is important to demonstrate this scientifically through data collected by conducting appropriate validation studies.

In addition to the type of inferences that we want to make about test scores, the type of test can influence the appropriateness of a specific validation strategy. Tests can range in their level of complexity and in how directly they measure job-related knowledge, skills, abilities, and other characteristics (KSAOs). In the following sections, we provide an overview of content validity and criterion-related validity, as these two approaches are most commonly used to validate physical ability tests.

### *Content Validity*

Relatively direct measures, also known as work sample tests, are sometimes used when there is a clearly documented physical requirement that is performed frequently on the job. A ruck march test, for example, could be designed based on data from a systematic job analysis to ensure there is a high correspondence between the content (e.g., load, distance, pace) of the test and the job. Establishing this correspondence between the test and the job is referred to as content validity and requires a systematic linkage, made by subject matter experts, between assessment components and job requirements (McPhail and Stelly, 2010, pp. 682-683):

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[142] Foundational resource for best practice guidelines for establishing fair selection and assessment practices; Equal Employment Opportunity Commission, 1978.

> Selection procedures [tests] are more supportable when they minimize the assessment of extraneous factors…and approximate the [physical] level and complexity of the job. Formal documentation of the links between assessment components and the KSAOs or work behaviors they are intended to measure should be developed. Once assessments are developed, it should be clear how the assessment content representatively samples important aspects of the observable job domain or the body of knowledge that is a prerequisite for observable work behavior [on important, job-related tasks].

Work sample tests are generally designed to measure an individual's capability to perform a relatively specific, but small number of tasks.[143] That is, a ruck march test would be designed to tell us how well a trainee/operator can move while under a heavy load.

*Criterion-Related Validity*

Criterion-related validity is supported when there is a statistically significant relationship (e.g., correlation) between test scores and job performance scores. Tests other than work sample tests can be designed to ensure capabilities to perform a wider range of tasks by measuring basic abilities, such as upper-body muscular strength and endurance. A pull-up test, for example, may be designed to ensure the capability to perform several important job-related tasks requiring upper-body strength and endurance (e.g., climbing a rope ladder, caving ladder, over a wall). In this case, a criterion-related validity study, with a representative sample of participants, could be an appropriate strategy to ensure that the number of pull-ups an individual can complete is a good indicator of future performance on important, job-related tasks (see Figure 7.1); such as, climbing a wall during urban warfare.

A criterion-related validity study can also be a useful strategy for establishing validity when physically demanding tests are designed to measure non-physical abilities. For example, a test that requires six individuals to work together to move heavy equipment over sandy terrain for 10 kilometers may be designed to measure teamwork, leadership, and persistence. The minimum data requirements for establishing the validity of this type of test requires test scores and job performance scores on the same ability. For example, instructors could provide ratings of teamwork for individuals on the test and supervisors could provide ratings of teamwork for these same individuals after they have completed a mission at some point in the future. The statistical correlation between these two sets of ratings would then be examined to ensure test teamwork scores are positively correlated with teamwork job performance scores. That is, individuals with the highest test scores are most likely to receive the highest job performance scores.

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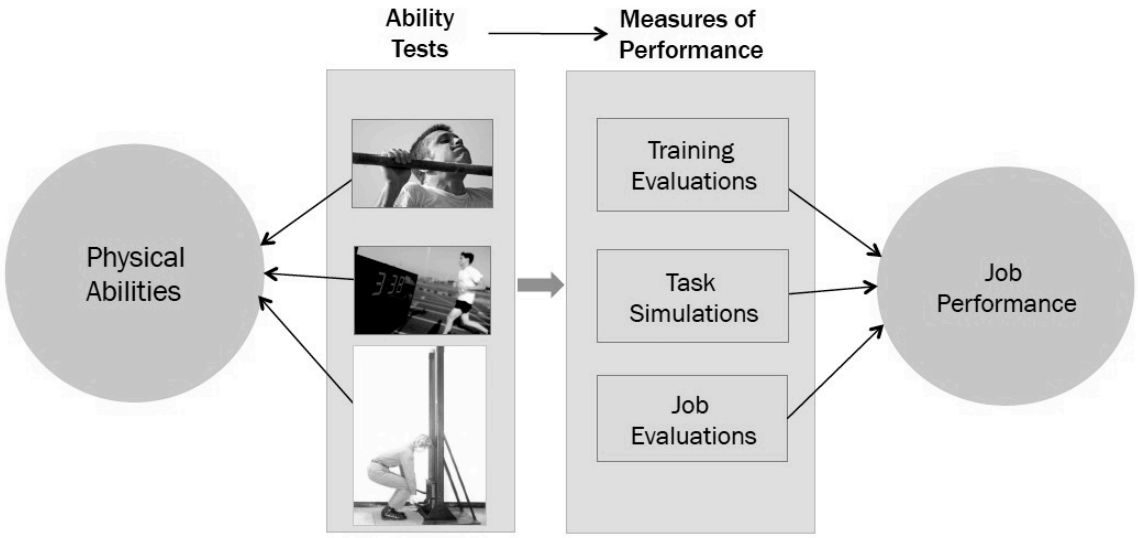
[143] Work sample tests can also be used to predict an individual's capability to perform other tasks not included on the test, especially when an underlying ability such as muscular endurance is needed to perform tasks sampled on the test and other job-related tasks not included on the test. For example, a test requiring individuals to climb a caving ladder while wearing body armor could be used to predict tasks requiring similar upper body strength such as climbing over a wall or pulling oneself into a helicopter. To support this type of linkage, a criterion validation study would need to be conducted.

**Figure 7.1. Illustration of Criterion-Related Validity: Establishing the Statistical Relationships Between Physical Ability Tests and Job Performance**




Although these types of events[144] can be useful for measuring important job-related abilities, several important issues need to be addressed when using physically demanding tests to assess non-physical, job-related abilities:

What is the purpose of the test (e.g., is the purpose of a test that requires a team of eight individuals to move equipment over sandy terrain designed to measure teamwork, motivation, and ability to handle stress?)

- Which non-physical abilities or attributes will be measured? Are the requirements for these abilities supported by data collected from a systematic job analysis?
- How will these abilities be measured on the test (e.g., instructor ratings, peer ratings)? What is the reliability of these ratings?
- Which physical abilities are required to perform well on this test? Are these physical abilities (and amount of abilities/level of physical effort) supported as required by data collected from a systematic job analysis?
- Are physical and psychological stressors applied during the test? If so, are these stressors supported as required by data collected from a systematic job analysis?
- Are there non-physical methods available for measuring these non- physical abilities? If other methods are available, why are they not being used?

[144] Multiple events that include multiple job-related performance dimensions and where performance is evaluated by multiple raters are commonly referred to as assessment centers.

*Choosing a Validation Strategy: Content Validity vs. Criterion-related Validity*

It is important to note that a content-validity approach is most appropriate when scientifically establishing the correspondence between important physically demanding tasks required on the job/mission and physically demanding tasks required in training and on tests. On the other hand, it is generally less appropriate to rely solely on content-validity approaches for justifying the use of physical tests and/or tasks to measure non-physical abilities. Therefore, the use of any physically demanding tasks or activities designed to measure these types of characteristics should be supported by other forms of validity evidence (e.g., criterion-related validity). One approach might be to demonstrate that scores on these tasks or activities are statistically related to important job outcomes.

Depending on the nature of the abilities and how they are being measured, more complex construct validity studies may also need to be conducted. From a technical perspective, "construct validity is based on an integration of any evidence that bears on the interpretation or meaning of the test scores—including content- and criterion-related evidence—which are thus subsumed as part of construct validity" (Messick, 1995, p. 742). Evidence of convergent and divergent validity may be also be needed—"[c]onvergent evidence exists when (a) test scores relate to scores on other tests of the same construct, (b) test scores from people who differ in the extent to which they possess the focal construct also differ in a predictable way, or (c) test scores relate to scores on tests of other constructs that are theoretically expected to be related. Discriminant evidence occurs when test scores do not relate to scores on tests of theoretically independent constructs" (Binning and Barrett, 1989, p. 482). Because construct validity often combines multiple validation strategies (e.g., convergent validity, discriminant validity), it is essential that the SOF service components conducting the validation studies consult with a qualified researcher who can assist with research design and interpretation of results.

*Job Performance Measures*

When determining which job performance measures to use in a validation study, it is important to evaluate several factors including the purpose of the test and the scientific validity, relevance, representativeness, sensitivity, and reliability of the criteria. These factors, emphasized in the Uniform Guidelines on Employee Selection, provide additional clarification in Section when using training performance as a criterion (29 CFR Part 1607, Section 14B(3)):

> Where performance in training is used as a criterion, success in training should be properly measured and the relevance of the training should be shown either through a comparison of the content of the training program with the critical or important work behavior(s) of the job(s), or through a demonstration of the relationship between measures of performance in training and measures of job performance. Measures of relative success in training include but are not limited to instructor evaluations, performance samples, or tests.

Performance can be defined using a wide range of criteria, including evaluations of training performance and job/mission performance. Depending on the type of performance criteria,

multiple sources may be appropriate for measuring performance, including the use of instructors, psychologists, and/or peers to obtain independent ratings. In addition to providing different perspectives, the use of multiple raters also provides the added benefit of being able to evaluate inter-rater reliability. In all cases, the rater should be familiar with the rating instrument and performance standards, and their ratings should be based on observation of job-related behaviors and outcomes.

As part of the overall review of the scientific validity of performance criteria, steps should be taken to ensure that instructors are fully trained on how to evaluate and that ratings are evaluated for reliability. Acknowledging that the development and evaluation of performance criteria is a complex process, a qualified research team should lead efforts to evaluate the scientific validity and reliability for each performance criterion that will be used in validation efforts to establish operationally relevant, gender-neutral tests and standards. The research team should consist of individuals with backgrounds or expertise in industrial-organizational psychology, exercise physiology, and statistics. Additional expertise in occupational health and/or medicine may also be helpful if tests and standards are designed to predict or minimize injuries in training and on the job.

#### *Establishing the Validity of Job Performance Measures*

Similar to establishing the scientific validity of a work sample test, a content validity approach can be used to establish links between training content and important job tasks. This is an important step even when using training outcome measures, such as attrition and injuries, which may be influenced by multiple factors, some of which may be unrelated to an individual's job-relevant abilities. Attrition, in particular, may be influenced by a variety of job-relevant factors including low motivation, lack of physical or mental preparation, or insufficient abilities. It may also be influenced by unwanted factors including instructor bias, unreliable or non-standardized testing, or irrelevant training curriculum. Therefore, a content validation study should be conducted to document the linkage between training and the job. Such a study would help to establish the relevance of physical training tasks, training conditions, and the application of psychological and/or physical stressors. These linkages should facilitate an understanding of attrition and injury outcomes, including why and how they are influenced by different job-relevant abilities.

### *Documentation*

A critical part of the six-step approach is establishing full and proper documentation of how each step in the process is performed—providing justification and evidence of how each step was undertaken. Throughout the process, it is preferable to err on the side of providing too much information rather than too little. In the appendix we provide a recommended outline for the report elements that SOCOM will need in order to fully explain the gender-neutrality of physical ability tests, assessments, and standards. Many of the report elements will require input from

individuals with expertise in personnel selection, validation, and statistics. The aim is to provide adequate documentation to demonstrate that SOCOM adhered to widely-accepted scientific and professional guidelines in its evaluation.

The report, or more likely, several reports, documenting the process should contain major sections as follows:

- *Background information* on how operators are currently selected into the specialty including a thorough description of all the tests, assessments, and standards that are used to determine the qualifications and readiness of operators in each specialty.
- *A description of the physical tasks and demands of the spe*cialty (i.e., job analysis). Documentation for the job analysis should present not only results of the job analysis but also information on how it was conducted. The documentation should be clear as to which tasks were extracted from relevant training documents or regulations, from interviews or surveys with subject matter experts or from other documents describing the physical demands of particular missions.
- *An examination of alternative tests and assessments* that were considered or have been used previously. The documentation should provide an explanation as to why alternative tests and assessments were not adopted. This is an important step especially for tests and assessments that may result in subgroup differences to show that efforts were taken to identify other options that are equally valid but result in the elimination or reduction of subgroup differences.
- *Conceptual linkage of tests/assessments to job analysis results*. Tests and assessments can be linked directly to important, physically demanding tasks or they can be linked to important knowledge, skills, and abilities.
- *Validation evidence*. Documentation should describe the validation methodology, the validation study results, and a summary of conclusions that can be drawn from each statistical analysis. It is important to identify and document the objectives of all tests and assessment activities.
- *A description of the standard setting procedures* for tests and assessments that require a minimum score.

## Examining Fairness and Bias

Fairness has many meanings and there is no single, commonly accepted definition of fairness (American Educational Research Association et al., 1999). However, when evaluating a test, four types of fairness are often examined including a) subgroup outcomes (e.g., qualification rates for men and women), b) equal treatment of all possible candidates, c) equal opportunities to learn about the tests being used for selection, and d) a lack of predictive bias (Society for Industrial and Organizational Psychology, 2003).

The first of these definitions suggests that equal subgroup outcomes occur when the selection or qualification rates are equal for different subgroups (e.g., men and women). It is important to note that this definition of fairness has been rejected (American Educational Research Association et al., 1999). As discussed previously, there are sometimes large differences between men and women on their physical ability test scores, which could result in differential

qualification rates of men and women if those tests were used. Therefore, average gender differences on physical ability tests should not be used to interpret whether these tests are biased or unfair towards women. However, when outcomes differ by subgroups, it is important to demonstrate that those selection tests are job-related. The remaining three definitions of fairness should be evaluated to determine whether a selection process and the tests used are fair.

Second, all candidates should be treated equally. That is, the same tests, standards, and process should be used for all candidates (e.g., both men and women). Although different tests may measure similar physical abilities (e.g., upper body strength with pull-ups vs. flexed arm hang), it is important that the same test and testing conditions (to the extent possible) should be applied to all candidates. Ensuring that equal standards are applied is also fairly straightforward; however, it is important to note that if normative standards that compare the relative standing of test takers to each other are used (e.g., 90$^{th}$ percentile of all test-takers—regardless of gender), that male and female test scores are combined to form one norm group. The use of gender-specific norms to select candidates (e.g., 90% of female test takers and 90$^{th}$ percentile of male test takers) is not consistent with currently accepted definitions and interpretations of gender-neutral standards. Finally, the overall selection process and policies should be consistently applied across all candidates. This includes ensuring that administration instructions are standardized, instructional feedback is provided equally to men and women, and number of opportunities for retesting is standardized so both men and women have equal opportunity for retesting.

Third, all candidates should also be provided with equal access to information about the tests and selection process. Details about the tests, standards, and scoring process should be equally available. This does not mean that this information must be provided to everyone, but if it's provided to men then it should be equally available to women. Finally, if opportunities to practice the tests (e.g., obstacle course) are provided, such opportunities should be communicated and made available equally to both men and women.

A fourth possible source that could affect the fairness is evidence of predictive bias of the test. Predictive bias occurs when the test is a better indicator (i.e., predictor) of future job performance consisting of the same job tasks for one subgroup compared to another. One example of predictive bias presented earlier in this chapter found that some fitness tests may have a body mass bias (Vanderburgh et al., 2011). For example, smaller individuals may do well on a fitness test (e.g., pull ups) but are unable to perform an operational task while wearing heavy equipment (e.g., ruck sack, body armor). In contrast, pull ups may be a good indicator of performance on the same operational task for heavier individuals. In other words, pull ups would be a good predictor of future performance for individuals from one subgroup but not for individuals in the other subgroup. Although predictive bias may not be expected when comparing men and women, it is an important to examine when the percentage of women passing the test is significantly lower than the passing rate of men. If a test is found to have predictive bias, additional research should be conducted to identify potential alternative tests,

which measure that specific ability. Returning to the predictive bias example with body mass bias, it's possible that a pull up test while wearing a weighted vest may predict performance equally well for all individuals regardless of their size.

Fairness is a complex, multifaceted construct with many different definitions. Although no single definition exists, it is clear that differential subgroup outcomes do not necessarily indicate that a test is biased. Consistent with this perspective, measures of physical ability can have moderate to large gender differences resulting in different selection/qualification rates for men and women but still be fair and unbiased. Nonetheless, it is important to demonstrate evidence that any tests resulting in subgroup differences are job-related (see next section). To promote overall fairness, best practice guidelines suggest steps to ensure equitable treatment, opportunities, and access to information for all candidates regardless of gender. Further, predictive bias should be examined when there is sufficient and appropriate data to compare the relationship between tests and job performance for different subgroups. Because predictive bias requires statistical expertise, statisticians or similar experts (e.g., industrial-organizational psychologists) should be consulted on how to conduct these analyses.

## Implementation Challenges

The sections above described a framework that can be used to establish gender-neutral standards, including validation and documentation requirements. The framework offers structure to the process and can serve as a useful construct for explaining the approach used in the development of standards. Even if the service components adopt the six-step approach, challenges will still arise during implementation. To conclude, we discuss some of the most important challenges and how they can be addressed.

### *SOF has Existing Processes*

We recognize that the service components have existing selection tests and standards for SOF specialties that have been identified by a different process than the one described here—one within which the six-step process does not neatly fit. These standards were developed before women were eligible for SOF specialties, but they are still relevant occupational standards. But these standards still need to be evaluated against the remaining steps in the process—validation, establishing minimum test scores, screening implementation applicable to both men and women. *The six-step process can serve as a valid checklist within existing processes*.

### *Physical Tasks and Activities Often Measure Other Characteristics*

Some existing physical tasks and activities (in training, selection and assessment, etc.) are not designed to measure critical physical abilities, but instead are used to measure other important characteristics such as creativity, critical thinking, teamwork, leadership, perseverance, and

persistence under stress. These tasks and activities are critical to identifying and training special operators, but they are also difficult to validate.

Measuring such characteristics indirectly through performance on physical tasks and activities is more difficult than identifying and measuring physical job demands explicitly required by the mission but *it is possible, as long as the effort is systematic and explicit*. The questions that need to be addressed are:

- Is the purpose of these tasks and activities clearly documented?
- Are there performance standards that correspond to these tasks and activities?
- Is there job analysis evidence documenting the importance of such characteristics?
- What validity evidence is available to demonstrate that such characteristics can be reliably measured when candidates are performing these tasks and activities?
- Are there alternative methods for reliably measuring these characteristics that may be equally or more valid but require less physical strength and endurance?

This is not an exhaustive list and, depending on the specifics, there may be additional questions to address. *The service components should consider the above list of questions as they go about their validation efforts.*

### *Requirements for Resources and Expertise*

Each of the service components has different amounts of resources and expertise available for executing the required steps for validation to ensure current and future standards are gender neutral. As a general principle, the number of occupational specialties will influence the level of effort required to execute something like the six-step process that we outline above. In other words, conducting a job analysis entails some substantial upfront costs, whether there are only a few or many service members in that specialty. What that means is that some service components are stretched thin in terms of resources available.

In order to carry out a thorough job analysis for each specialty, *that the service components need to consider the number of specialties that are being reviewed when dedicating time and staff resources and -- whenever possible -- leverage each other's resources and expertise for conducting task and physical demand analyses, and statistical analyses evaluating the relationship between physical test scores and operator job/training performance.* We realize that each of the service components and specialties is unique but there are parallels and overlaps between them and it would be wise to share these lessons within the SOF community. One of the ways to leverage the efforts of the components is to devote time at regular meetings to specific topics pertaining to job analysis and validation, and allow the service components to report on their progress and share ideas and suggestions. Such information sharing will be helpful to increase efficiencies and promote discussion of evolving best practices.

### *Command Expectations*

The time and resources required to conduct a comprehensive job/task analysis and to fully evaluate the physical ability tests and standards currently in place to ensure that they are gender-neutral is a resource-intensive process. Validation will take more than a few months of effort; it is a long-term process, which requires constant attention to ensure that the tests and standards are working as intended.

It is understandable that there would be concerns about the length of the process and that command expectations should be realistic. Completing the steps required to thoroughly validate standards will take time and resources. *A more appropriate way of thinking about the process is to consider the current stage as only the beginning of the effort that is bound to take years to do properly.* A genuine attempt at validation that meets intermediate timelines and milestones but is long-term in orientation is preferable to a quick and potentially incomplete validation that is open to questioning and difficult to defend.

### *Misunderstanding and Criticism of the Process*

Besides the intrinsic value of the documentation in providing the evidence for a thorough job analysis and validation of tests and standards, there is also an important strategic communication element. There are many concerns about the process of establishing gender-neutral standards—that the outcome of the process is already pre-decided, that there is pressure from outside DoD to reduce standards if women were unable to qualify, that few women will be able to meet the standards to qualify, or that few women who might be capable of success will be interested. Many of these concerns were echoed in the survey and focus group responses.

*It is critical to communicate throughout the SOF community that the validation process is based on widely accepted scientific principles to ensure that the most capable individuals are selected, its purpose is to be unbiased and objective, and ultimately is meant to improve organizational and mission effectiveness*. In other words, validation is the scientific process used to demonstrate that a screening process is successful at (a) identifying individuals who have the highest probability of succeeding on the job and (b) screening out individuals who would be unable to perform the essential functions of the job. All of these concerns reinforce the importance of documentation and the need to follow the practices described in this chapter.

We recommend that the message regarding the intent and the transparency of the validation process be made clear throughout the force. Similarly, it is important to communicate throughout the SOF community that challenges regarding low qualifying rates of women are best addressed by presenting documentation that shows adherence to scientific best practices and guidelines (i.e., validation). In order for it to have full significance, the message would need to originate with SOCOM leadership and be fully reinforced by leaders within each special operations command.

### *Timing of the Changes and Implementation*

Related to the preceding point, as indicated by the survey and focus group responses, any changes made to the current physical ability standards may be viewed negatively by personnel within the SOF community. Specifically, one area of concern is that women who qualify under any "new" standards would be treated as second-class citizens by already serving special operators because they have not proven themselves capable of passing the old standards. A complementary area of concern is that current operators may have less trust in any operators qualifying under the new standards since the new standards may be perceived as lower just to allow women to qualify. Therefore, operators who qualified under the old standards may have less confidence in new operators' ability to perform essential job duties. From a long-term perspective, there is potential that such beliefs might lead to lower morale and undermine faith in leadership and unit readiness.

*Ideally, the service components would head off such concerns and deal with them directly and proactively. SOF service components and USSOCOM should consider a strategic communications plan that outlines the process and its goals clearly.* Specific aspects of the plan might include involving well-respected operators in the development process at all points, continuously asking for their input about it along the way, keeping them informed about the process used to develop the standards, and checking at various points to make sure operators have faith that the standards review and validation process works.

### *Limitations on Female Special Operators Performing Certain Missions*

It is possible that factors outside of U.S. control could limit the ability of women special operators to perform certain missions—such as women SOF members operating in countries that have strict views on gender roles in societies. A concern is that women would not be accepted in such countries, especially in leadership positions (e.g., as trainers of foreign forces). Since training foreign partners is one of the doctrinal SOF missions, the presence of women in SOF might make mission accomplishment more difficult in some countries. But women could also bring capabilities to SOF in specific areas such as intelligence, reconnaissance, and access and placement.

There is no easy answer to the fact that cultural norms on gender roles are quite different in some other societies from the prevailing norms in the United States. At some point, USSOCOM is going to need to address the employment policy for SOF women, if such a point comes to pass. Ideally, USSOCOM would consider such questions sooner rather than later. The answers may be case-specific. The employment policies of women by other U.S. government agencies and departments might provide some parallels.

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# 8. Observations and Implications

The rescission of DGCDAR has led to the potential opening of some of the most physically demanding and psychologically stressful of all military occupations. The assessment and selection process into these occupations is highly competitive and the training that follows is long and exacting. Even among the highly fit and motivated men who self-select into these specialties, few succeed in going through the rigorous entry and qualification process.

Our research aimed to assess the range of potential obstacles to the effective integration of women into these specialties, focusing on the challenges at the unit- and team-level. The two categories of challenges concerning the integration of women into SOF center on questions regarding: 1) the physical and psychological capabilities of women to deal with the physical tasks required as part of SOF missions and the psychological stress associated with the extremely dangerous and austere environments in which SOF operate; and, 2) the impact of the integration of women on the cohesion, trust, morale, discipline, and the general smooth functioning and intra-unit dynamics of SOF small teams.

In this chapter, first we summarize our findings. Then, we discuss the implications of our research for potential integration of women into all SOF specialties.

## Findings

Our assessment of the research examining sex and gender differences related to physical ability shows that males generally outperform females on physical ability and motor skill tests. Similarly, men and women respond differently to stress. However, these general male-female differences across populations are not all that useful for purposes of screening for suitability for SOF, since selectees for SOF are, by definition, in the tail of the distribution. In almost all cases, primary emphasis in the selection and accession process must be placed on individual screening, as it is each individual's history, physiology, and physical fitness that will influence his or her performance levels. Similarly, individual differences and prior experiences have a greater impact on stress response than sex or gender. Training can improve performance in physical ability and can modify response to and coping with stress.

Our review of the research on cohesion, a fundamental dimension of unit effectiveness, shows that unit cohesion is multidimensional, with instrumental (task cohesion) and affective (social cohesion) components. Task cohesion is critical, but the highest performing units in stressful situations have both high task and social cohesion. The benefits of cohesion on team performance increase for small, autonomous teams that engage in intense, cooperative tasks; depend on team members' capabilities to accomplish their goals; and operate in stressful situations. All of these characteristics typify small SOF tactical units. Integrating women into

SOF units has the potential to reduce unit cohesion if female special operators are not accepted as full members of their teams. Women's acceptance on teams will reflect their ability to perform team tasks, other team members' willingness to accept women on the team, and leaders' efforts to promote integration. Male unit members' perceptions of women's performance and competence may be influenced by many factors. Women's performance on unit tasks will shape unit members' perceptions of competence. Perceptions of women's competence will also reflect the quality of members' prior experience working with women, and potential biases in assessing women's capabilities. Male unit members' beliefs about the standards to which women are held will also influence their perceptions of women's competence.

We collected primary data to assess the extent of challenges to the potential integration of women into SOF. We designed and administered a survey to gauge the extent of potential challenges to the integration of women into SOF among the personnel in USSOCOM-controlled positions that have been closed to women. To complement the survey, add richness, and gain a more nuanced understanding of the potential challenges, we conducted a series of focus group discussions with SOF personnel in those positions.

Our survey showed that opposition to opening SOF specialties to women is both deep and wide, with high levels of opposition across all SOF elements. The opposition is deep-seated and intensely felt. The principal sources of this opposition are: the belief among SOF that women do not have the physical and other capabilities to meet the demands of their SOF specialties; the belief that the current, high levels of cohesion and trust in their units will suffer if women are allowed in; and the importance SOF personnel attach to maintaining high standards, coupled with deep concern that performance standards may nonetheless be lowered to enable women to qualify for their specialties. There was some receptivity among SOF personnel to the opening of SOF units to women in enabler roles, with acknowledgment that women might be helpful in conducting sensitive operations and communicating with local populations.

Our focus group sessions reflected the survey findings, with the greatest concern being the potential lowering of standards and skepticism about the ability of women to have the abilities to carry out some of the challenging SOF missions. There was also dissatisfaction with the rescission decision and a perception that SOF was being used as a social experiment. The potential issues that SOF personnel foresee from integration of women into SOF units included lower cohesion, favoritism, lower readiness and deployability, and more family problems. Operationally, SOF personnel were concerned about additional medical and hygiene issues, force protection, and difficulties working with some of the partner forces. There was a perception that, because of new incentive systems in place once women are allowed to enter SOF, standards eventually will be lowered for men and women. Similar to the survey, there was some openness to roles for women in SOF as enablers.

The concerns voiced center on the elements critical to the functioning of SOF small units and teams: the capabilities of personnel to carry out assigned missions and the atmosphere of cohesion and trust within the small SOF teams that allows each team member to perform at

highest level. The concerns regarding the integration of women into SOF specialties are widespread among currently serving SOF personnel, resulting in challenges to the integration of women into these specialties. In order for any integration of women into SOF to be successful, these challenges will need to be taken into account. At least some of the concerns may be overly sweeping in that, if the SOF specialties are opened to women, much depends on the quality of women recruits, their preparation and motivation, and the willingness of the leadership not to cut corners and to treat all recruits fairly. If there is a clear perception that lowering mission-determined standards is out of the question, and the leadership enforces this attitude, then perceptions of women as not up to the task will not apply all that easily to the women who pass through the process. And, if women are perceived as competent, integrating women into SOF units is less likely to adversely affect unit cohesion.

These findings must be interpreted with some caution. Our survey and focus groups were designed to elicit speculation from SOF personnel as to the impact of the integration of women into SOF so as to gauge the extent of challenges and a deeper understanding of the concerns of SOF personnel. This speculation was not based on actual experiences of SOF personnel, because women are not in those units, but rather their beliefs about what might happen if women are integrated into SOF units. Moreover, debates over military personnel policy take place in the political realm. Our data collection did not happen in a vacuum; instead, the intense level of feelings on the issue of the integration of women into SOF may be a symptom of the highly charged political environment on this issue and reflect the fact that SOF personnel were given an opportunity to weigh in on the issue.

We note that most, if not all, of the concerns voiced by SOF personnel regarding the potential integration of women into previously closed SOF specialties had come up in previous waves of integration of excluded groups into the military. In all the previous cases, there was relatively quick acceptance of the previously excluded group and opposition to their integration declined greatly over time. The case of women entering SOF specialties is on the far end of the spectrum in terms of the physical demands and exposure to dangerous military environments. Since, in a general population comparison, women lack some of the physical abilities of men, the potential integration of women into all SOF specialties may be more challenging than previous cases of integration of women into military specialties but there is no reason to believe the challenges are insurmountable. Integration of excluded groups, whether in the U.S. military or in some roughly analogous organizations in the civilian world, always causes some change and adaptation within the organization but it is not necessarily a change for the worse (Gaertner and Dovidio, 2000; Lundquist, 2008). Cultural resistance to change, especially in highly effective organizations, is to be expected (Jost, Banaji, and Nosek, 2004; Kay and Friesen, 2011; Sidanius and Pratto, 1999). But it is the implementation process that will determine whether the changes have a net negative or positive impact (Fiske, 2000; Gaertner, Mann, Murrell, and Dovidio, 1989).

## Implications

As we have noted repeatedly, the purpose of this research was to inform USSOCOM about the depth and extent of potential challenges to the integration of women into all SOF positions. If USSOCOM makes the decision to proceed, the critical element for success will be the implementation plan. Below we sketch out the basic guidelines of such an implementation plan. Expanding on these guidelines is an appropriate step after a policy decision is made, and if such a decision is in the affirmative.

In order for a potential process of integration of women into all SOF occupations to be successful, it will require transparency, effective leadership and communication, monitoring of progress, and openness to innovation and experimentation. Even with all of the above, the process still is likely to face major challenges because of the depth and scope of opposition and concern among the force. As USSOCOM considers near-term and long-term integration priorities, the mechanisms put into place will need to be flexible enough to accommodate learning and adjustments through strategies such as phased implementation or systematic experiments. Finally, putting the systems in place to enable the collection of the appropriate data throughout the integration process will ensure that progress can be tracked and that improvements can be made over time.

When looking across all of our study findings, the following principles are particularly relevant to informing USSOCOM's implementation planning regarding the potential integration of women into SOF specialties and units: 1) leadership is key to integration success, 2) the implementation process is critical to long-term integration success, 3) valid, gender-neutral standards can facilitate integration, 4) targeted recruitment and adequate preparation of female candidates is needed, 5) deliberate pace of integration is important , 6) integration progress needs to be monitored and assessed over time, and 7) expectation management is a critical component of success. We discuss each of these issues below.

### *Leadership is Key to Integration Success*

Findings from our survey and focus groups indicate that most concerns among SOF personnel are leadership challenges. These include command climate issues such as the tone set during the integration process, as well as enforcing good order and discipline to prevent issues of misconduct that can have a negative impact on cohesion. Leadership can also introduce and enforce policies to identify quickly problems that may arise during implementation. Leadership can facilitate the implementation process by addressing some concerns expressed by SOF personnel regarding potential changes in intra-unit dynamics during the integration process. These include concerns that political pressure will force standards to be lowered and unqualified women will be pushed through training; concerns related to privacy, hygiene, and berthing; as well as the widespread perception by men that they will have to "walk on eggshells" because of potential sexual harassment charges. For instance, some of these concerns could be addressed by

implementing policies to both protect women from sexual harassment and sexual assault, and to protect men from false allegation of sexual harassment and sexual assault.

In addition, there will be need for an information campaign that tackles all of the difficult issues and concerns among SOF personnel and this information campaign will need to be reinforced at all levels of the chain of command. The findings from our survey and focus groups indicate that there is already much anxiety, misinformation, and misunderstanding. Moreover, there is some skepticism as to whether USSOCOM leadership will be able to navigate the process of potential integration without sacrificing some of the SOF standards and without bending to suit political leaders. This information campaign will need to explain the motivation behind the integration process and the goals of integration. It will also need to outline clearly the processes and timelines for integration, and address different interpretation of key terms such as "standards," "validation," "gender-neutral," and "bias." Some expectation management is in order.

Our findings also indicate that there are small but important differences across the SOF components, as well as across ranks and grades in terms of the level of opposition to opening their specialties and units to women. For instance, opposition to women entering SOF specialties and units is lowest among senior NCOs, warrant officers and officers; therefore, they could play a critical role in facilitating implementation. These groups could also play a key role in disseminating and explaining the information campaign.

### *The Implementation Process is Critical to Long-Term Success*

To ensure long-term viability, USSOCOM will need to put in place practices to promote the successful integration of qualified women. This includes developing and fostering an equitable organizational culture, which includes providing ample opportunities for women to demonstrate their competence. Our findings from the cohesion literature indicate that a key requirement for task cohesion is that team members must demonstrate that they can pull their weight on a team. If women are not given opportunities to demonstrate their abilities, they will be perceived as having inadequate abilities. Associated with this, USSOCOM and the SOF service components will need to establish practices to limit the social isolation of women in SOF. This aspect will need to be taken into consideration when making decisions regarding training and berthing. In addition, USSOCOCOM would benefit from establishing formal structures to monitor and evaluate inclusion practices to establish which ones are most effective.

Simultaneously, USSOCOM will need to focus on long-term integration priorities. In order to ensure long-term success, from the outset of its implementation planning, USSOCOM will need to consider long-term career progression issues for women in SOF. This includes creating viable career paths for women in SOF, as well as ensuring that women have equal access to educational, leadership and promotion opportunities, and strong mentors (either male or female).

### *Valid, Gender-Neutral Standards Can Facilitate Integration*

Much of the opposition to integrating women into SOF specialties and units is rooted in concerns regarding mission effectiveness (e.g., about women not being able to physically perform the necessary tasks for the job). However, these concerns can be addressed by establishing and validating gender-neutral standards and implementing training programs that prepare female candidates to meet those gender-neutral standards.

While gender-neutral standards are often pointed to as a barrier to women entering ground combat occupations, our findings from the cohesion literature suggest that gender-neutral standards may facilitate task cohesion in gender integrated units. Gender- neutral standards may actually reduce barriers to integration because they help to establish an equal foundation among all new recruits and help to dispel the notion that women in combat arms occupations are physically unprepared and incapable of completing their jobs effectively. If women can meet the requirements, then they will be able to establish their competence in completing a given task.

### *Targeted Recruitment and Adequate Preparation of Female Candidates is Needed*

We found that many of the concerns expressed by SOF personnel center on doubts about women being able to perform adequately the necessary physical tasks. Our findings also indicate that the low assessment of the abilities of women is often based on experiences with military women (in particular Cultural Support Teams and Female Engagement Teams) who did not have the same training and preparation as men. Providing female candidates adequate preparation to meet gender-neutral standards could better facilitate the physical conditioning women need in order to pass those standards. Such training and preparation also could go a long way in enabling women to earn the respect and trust of their fellow SOF teammates.

Some participants in our study did indicate that they had no doubt that there were some women who could adequately perform those tasks. This perception reinforces the view that targeted recruitment strategies also can be used to find the right female candidates for SOF positions. Developing strategies to target women already in peak physical condition will maximize the chances that those women will pass valid gender-neutral standards.

### *Deliberate Pace of Integration is Important*

Given the differences in mission, equipment, operational environment, and culture across SOF components, USSOCOM may need to consider a phased integration approach in which specific MOSs, units, or ranks are integrated first and then others are gradually integrated over time. Such an approach would allow USSOCOM to monitor the integration process and make adjustments as needed. This type of approach also could yield important information on the risks and benefits of integration that then could be applied to subsequent integration efforts as they are expanded.

A phased approach would provide additional time to allow SOF members and USSOCOM leadership to adjust to the specific issues pertaining to the presence of women. A phased approach could dispel some of the assumptions that many SOF personnel have about the potential negative impacts of integration. Consequently, if those assumptions are disproven by early examples of integration efforts, that could smooth the process as it later expands. On the other hand, if the results are problematic, then changes could be instituted before embarking on any full-scale program.

### *Integration Progress Needs to be Monitored and Assessed over Time*

In order to ensure continued learning and improvement during any potential integration process, USSOCOM will need to monitor and assess integration progress over time. Such monitoring and assessment will allow USSOCOM leadership to identify problems quickly and address them. The overall measure of outcome would be unit performance. Potential categories to monitor over time include: unit readiness, female career development, attrition, rates of misconduct, and cohesion and morale.

In order to do this, USSOCOM will need to develop a detailed monitoring plan that assigns responsibility and accountability to the various pieces of the plan. A strong monitoring plan relies on robust data systems that facilitate the necessary data collection to measure integration progress. A first step would be to consider which data systems are already in place to collect the appropriate data to monitor integration progress over time, and whether any new data systems are necessary.

There are important questions regarding effectiveness of the potential integration of women into SOF that remain unclear. These questions include: what are the most effective recruiting strategies to identify women who are both interested in SOF and in peak physical condition, and; which training programs are most suitable to prepare women to meet SOF gender-neutral standards. Given the many unknowns in place, adopting a broad strategy for collecting data using multiple methods and from multiple sources would be appropriate in order to monitor the effectiveness of integration. Ideally, studies adopting an experimental design (using both test and control groups) would be preferred, but sample sizes may not be large enough to conduct such studies and qualitative case studies may be necessary.

Any potential integration process also would benefit from making the most of the critical window of opportunity that precedes the decision on whether to integrate to establish the baselines against which future progress will be assessed. Without these baselines, it is impossible to track progress over time – as evidenced by previous gender integration efforts, including combat aviation. Establishing a strong monitoring plan, identifying the data system necessary to collect the appropriate data, and establishing baselines before integration occurs would enable the monitoring of progress and making the necessary adjustments over time.

### *Expectation Management is a Critical Component of Success*

A key part of the implementation process will be to manage expectations within, and external to, SOF. Our collection of primary data showed deep and widespread opposition to the integration of women into SOF. In order to maximize the chances of integration success, USSOCOM will need to base its implementation strategy on empirical data. Doing so would enable USSOCOM to set realistic goals and to counter pressure from both proponents and opponents of integration.

One of the most important aspects of expectations management is the number of women that are expected to join SOF if these positions are opened to them. Our review of the experiences of allied SOF indicate that, despite having positions open to women for more than a decade, there are very few women in allied SOF.[145] In fact, the experiences of allied militaries indicate that those that have general purpose combat arms positions open to women also have few women serving in those positions. From this perspective, the anxiety felt by SOF personnel about a large influx of women in a short period of time and a consequent altering of intra-unit dynamics may be unfounded. The process may be gradual and a change may come over a generation.

## Final Observations

Even with all of the above, there are still other complex concerns that we came upon in the course of our research; none of which involve easy solutions. For example, prevailing norms and customs in many of the developing countries where U.S. SOF personnel operate do not view women as equal members of the society. Combined with strict gender roles and segregation of the sexes, such attitudes might make deployment of U.S. women special operators difficult, if not counterproductive, for missions such as Security Force Assistance or Unconventional Warfare (these are doctrinally core activities of SOF) More specifically, one of the primary missions of Army SF is to provide training to partner militaries and militias (Security Force Assistance). Would future female SF personnel be as effective in such missions and environments as male SF personnel? There may be workarounds to such challenges but these challenges are likely to remain.

Given the extreme physical requirements associated with SOF, if USSOCOM opens up all the SOF occupations to women, the number of women likely to enter SOF is likely to be limited in the foreseeable future. But it is not a given that all SOF require such high levels of physical prowess and the importance of physical prowess in the fulfillment of SOF missions may change

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[145] We examined women's integration in the militaries of 18 of the United States' allies and treaty partners. We concentrated primarily on NATO states with professional militaries. Most of these countries allow women to serve in their ground combat units and have done so for over a decade (especially in the aftermath of the European Court of Justice ruling in 2001 on equal gender rights in the military) or longer (dating back to the early 1980s in some cases). We are aware of female combat SOF personnel in Germany, Spain, Sweden and Norway. We found no confirmation of more than a few women in the SOF of each of these countries (fewer than ten).

in the future. In fact, future SOF operating concepts that imply greater persistent forward presence, interaction with partners, and more preparation of the environment, all entail potential additional roles for women in SOF. Our survey and focus group findings indicate some receptiveness among SOF personnel to a highly trained cadre of SOF enablers, including females, that would be a repository of niche capabilities and could be utilized as needed to exploit opportunities. Potential roles and capabilities gaps that female SOF could fill include: intelligence, reconnaissance, access to populations, and security. These enabler roles, open to men and women, could provide additional mechanisms to recruit highly skilled and motivated personnel to SOF.

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