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Improving Gender Diversity in the U.S. Coast Guard

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Preface

This report documents the results of a mixed-methods study designed to help identify the root causes of female attrition in the active-duty Coast Guard and develop recommendations that will help mitigate identified barriers to Coast Guard active-duty female retention. The study analyzed trends in Coast Guard retention data and conducted focus groups with over 1,100 active-duty Coast Guard members across ten locations. This report describes the key retention factors identified through these analyses and provides recommendations for improving U.S. Coast Guard policies and programs to address potential barriers and improve female retention. The findings of this report should be of interest to decisionmakers across all of the military services and components of the U.S. Department of Homeland Security (DHS) seeking to improve female retention within their organizations.

This research was sponsored by the U.S. Coast Guard Office of Diversity and Inclusion and conducted within the Strategy, Policy, and Operations Program of the Homeland Security Operational Analysis Center (HSOAC), a federally funded research and development center (FFRDC) operated by the RAND Corporation under contract with DHS.

About the Homeland Security Operational Analysis Center (HSOAC)

The Homeland Security Act of 2002 (Section 305 of Public Law 107-296, as codified at 6 U.S.C. § 185), authorizes the Secretary of Homeland Security, acting through the Under Secretary for Science and Technology, to establish one or more FFRDCs to provide independent analysis of homeland security issues. The RAND Corporation operates HSOAC as an FFRDC for DHS under contract HSHQDC-16-D-00007.

The HSOAC FFRDC provides the government with independent and objective analyses and advice in core areas important to the department in support of policy development, decisionmaking, alternative approaches, and new ideas on issues of significance. The HSOAC FFRDC also works with and supports other federal, state, local, tribal, and public- and private-sector organizations that make up the homeland security enterprise. The HSOAC FFRDC's research is undertaken by mutual consent with DHS and is organized as a set of discrete tasks. This report presents the results

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Summary

The U.S. Coast Guard aims to attract, recruit, and retain a workforce from all segments of American society. Currently, however, women leave the active-duty Coast Guard at higher rates than men. There has been prior research on women in the Coast Guard and gender differences in retention, which has provided some insight into female retention issues. However, the last large-scale study sponsored by the Coast Guard on women's issues was conducted in 1990, leaving a gap in current understanding regarding the issues women in the Coast Guard face today that influence retention decisions. To better understand the gender gap in retention, the Coast Guard's Office of Diversity and Inclusion asked the Homeland Security Operational Analysis Center (HSOAC) to identify the root causes of female attrition and develop recommendations that will help mitigate identified barriers to the retention of women in the Coast Guard.

The research team took a mixed-methods approach to this study that included

1. examination of female retention trends in the other military services and the private sector
2. focus groups with active-duty women in the Coast Guard to better understand potential barriers to female retention, and focus groups with a small sample of active-duty Coast Guard men to serve as a comparison
3. a statistical analysis of Coast Guard personnel data to examine gender differences in retention of active-duty officers and enlisted personnel and whether certain characteristics can help explain these differences.

In examining retention, we focused specifically on active-duty members; it was beyond the scope of the current study to also look at retention in the reserve component or among Coast Guard civilian members who may face similar but unique issues related to retention. The emphasis in our focus groups and in our final study recommendations is on factors that may influence voluntary decisions to remain on active duty or separate, regardless of whether the member may have chosen to join the reserves.[1] In our quantitative analyses, however, we did not have data differentiating

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[1] We did ask members if they would be interested in joining the reserves when they separated from active duty. However, responses from participants were mixed, with many saying they were unsure.

reasons for attrition and whether it was voluntary in nature. Therefore, in our quantitative analyses, we define attrition based simply on whether a member is present or not in the active-duty force at some point in the future, conditional on being present at some initial point in time.

Retention Trends for Female Active-Duty Members

For both active-duty officers and enlisted personnel, cumulative retention gaps between men and women emerge in the first ten years of service and then stabilize (see Figures S.1 and S.2). Among officers, 83.9 percent of men remain in the Coast Guard after five years compared with 78.3 percent of women, for a cumulative gap of 5.6 percentage points. At ten years, the gap widens to 12.6 percentage points, and at 19 years, the gap inches up to 12.9 percentage points.

Among enlisted personnel, 71.1 percent of men remain after four years of service compared with 62.4 percent of women, for a cumulative gap of 8.7 percentage points. At both ten and 19 years—just before personnel become eligible for retirement—the gap is 12.3 percentage points.

A key difference between enlisted personnel and officers is that significantly more enlisted personnel leave in the first four years and female retention is lower than male retention in this range. In contrast, there is little officer attrition prior to five years of

Figure S.1
Cumulative Continuation Rates by Gender for Active-Duty Commissioned Officers, Fiscal Years 2005–2016
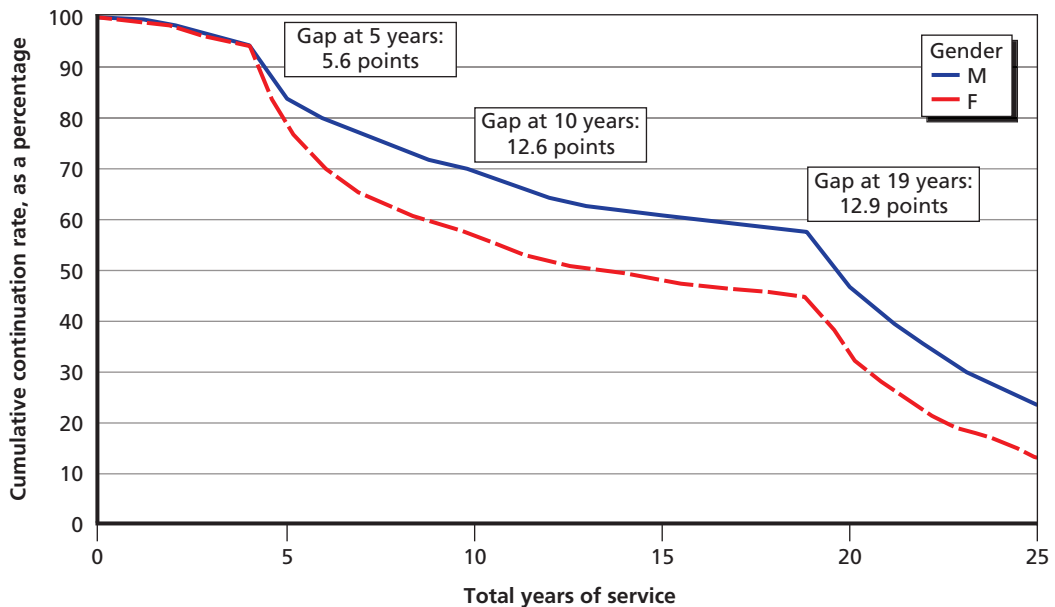
Figure S.2
Cumulative Continuation Rates by Gender for Active-Duty Enlisted Personnel and Warrant Officers, Fiscal Years 2005–2016
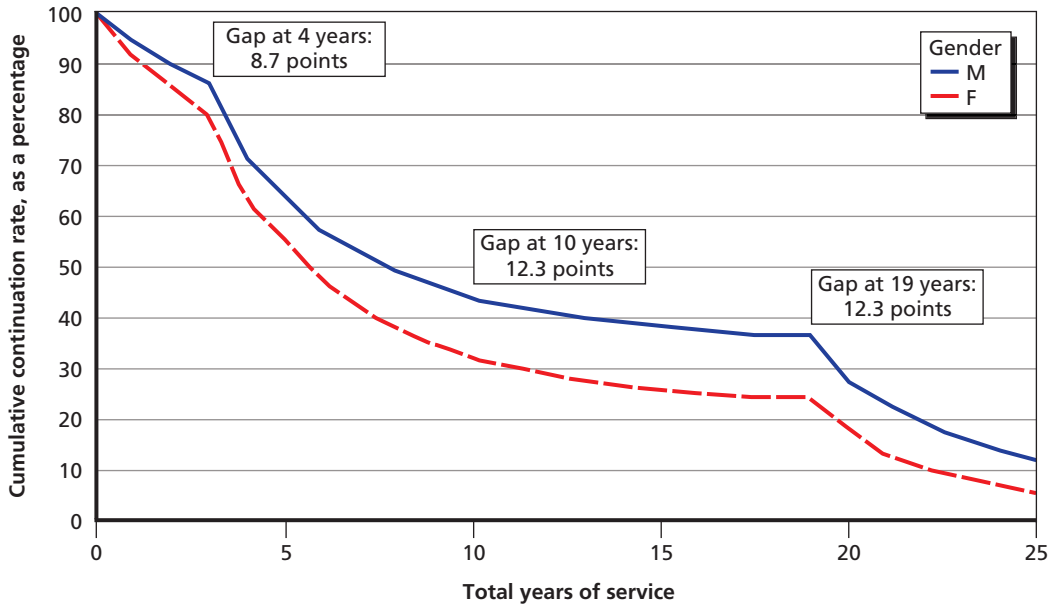
service (the period of initial service obligation for Coast Guard Academy graduates, who make up the majority of commissioned officers with fewer than five total years of service) and no gender difference in this range.

Similar Retention Trends Exist in DoD Military Services and the Private Sector

The trends are generally similar for the military services under the Department of Defense (DoD), although the magnitude of the gap is larger in some cases. Prior research found that the cumulative retention gap for officers at ten years of service is 10 percentage points in the Army, 15 percentage points in the Navy, and 20 percentage points in the Air Force and Marine Corps (Military Leadership Diversity Commission [MLDC], 2011). There are no published statistics for enlisted personnel, but other studies have documented that women often have lower reenlistment rates than men (MLDC, 2011), and that women have a higher probability of first term attrition and a lower probability of reenlistment in the Army, even conditional on other characteristics such as marriage and the presence of children (Asch et al., 2010). However, retention rates in the other services may not be the best benchmark because retention of both men and women in the Coast Guard appears to be relatively high in comparison. For

example, roughly 40 percent of men in the DoD services remained through the nineteenth year of service versus 44.6 percent of Coast Guard women.

While it is difficult to find a perfect parallel in the civilian context to the Coast Guard given the closed promotion system and an "up-or-out" career path, civilian career fields also struggle to retain and advance women. Research has found that women encounter both "push" and "pull" factors throughout their careers, which may lead to them leaving their employer, industry, or the workforce altogether. "Pull" factors include work-life balance concerns, such as colocation with a professional partner or issues surrounding pregnancy, maternity leave, breastfeeding, and child care. "Push" factors include disparities in promotion potential, the disproportionate assignment of "non-promotable tasks" to women, compensation gaps, and sexual harassment and gender discrimination.

Focus Groups on Key Retention Factors

To better understand retention issues, we conducted 164 focus groups with 1,010 active-duty women and 27 focus groups with 127 active-duty men.[2] The focus groups were separated by gender as well as by enlisted and officer status.[3] Participants were asked about their career choices, retention factors, and how the Coast Guard might modify current benefits, policies, and programs to improve retention. Among other questions, we also asked the extent to which three specific programs may affect retention decisions: the Coast Guard Temporary Separation (TEMPSEP) program, educational opportunities and benefits (e.g., tuition assistance, GI and Post-9/11 GI Bill), and the new Blended Retirement System (BRS).[4] After analyzing focus group data, we identified retention factors in three main areas: work environment factors, career factors, and personal life factors. Many of these factors confirm findings from previous research on women's retention in the Coast Guard. In the following paragraphs, we summarize the most prevalent observations in each area, as well as factors women identified as reasons to remain in the Coast Guard. We also note where factors resonated with men regarding male retention. It is important to note that focus groups provide in-depth descrip-

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[2]   Our focus groups included participation from roughly 17 percent of active-duty Coast Guard women. It is important to note that eliciting voluntary participation in focus groups can introduce self-selection bias in the participants.

[3]   Appendix B provides more detail on participant background characteristics, including rank, rating/specialty, marital status, parental status, and education level.

[4]   TEMPSEP allows active-duty members to take a temporary separation to focus on personal interests or other personal issues and then return to active duty. The Blended Retirement System provides a new retirement option for service members in which they no longer need to stay for 20 years to receive retirement benefits. Instead, they can receive matching contributions to a Thrift Savings Plan and mid-career incentive pay; the BRS reduces the amount of compensation for staying in for 20 years though.

tive information and not precise statistical estimates regarding the relative importance of any single theme or the percentage of individuals who may hold a certain attitude. Instead, they are designed to be exploratory and provide greater context and insight into various issues and concerns.

Work Environment Factors
Female focus group participants raised a number of work environment factors as influencing their retention decisions.

Leadership: Female participants cited experiences with poor leadership as a factor in their retention decisions. They described perceptions of bad leaders being retained and even promoted; toxic commanders creating an "old boys' club" environment that excludes women; examples of discrimination against women; and male leaders being reluctant to mentor women. Female participants said some leaders were not supportive of the women under their command and of their family obligations. Participants also expressed frustration with the Coast Guard's leadership training and development, saying it results in leaders who lack the qualifications or training for such a role. Participants also had experiences with leaders who were unaware of Coast Guard policies, particularly female-specific policies, or who interpreted or implemented policies inconsistently. Female participants also noted a desire for more female leaders to act as role models and mentors. Male participants agreed that Coast Guard leadership training is lacking and that more is needed to better develop leadership skills in members.

Gender bias or discrimination: Female focus group participants cited gender bias and discrimination as a strong contributor to women leaving the Coast Guard. Participants expressed the belief that they were treated differently than male peers, had to work twice as hard as men to prove themselves, and felt that men often did not trust their opinions or value the quality of their work. This was described as particularly pervasive in male-dominated ratings or specialties. Some women also perceived bias in evaluations; they felt that there was a culture in which women were excluded and felt they had to tolerate inappropriate comments. Some described experiences of male peers avoiding them or actively excluding them from activities, resulting in women feeling a lack of camaraderie. Furthermore, when women do interact with male peers, they can be subjected to rumors of engaging in a sexual relationship, with any stigma being placed on the woman. Notably, while not a factor for male retention, male focus groups acknowledged that gender bias and discrimination could be a reason that women leave the Coast Guard.

Weight standards: Female focus group participants frequently raised weight standards as a factor influencing their retention decisions. They perceived weight standards to be especially harsh for women compared with men. Women criticized the "taping" methods used to assess body fat because they do not take into account different female body types—women with wider hips that cannot be reduced by diet and exercise or body changes after childbirth—resulting in standards that are unreasonable and some-

times impossible for some women to meet. As a result, some women described resorting to crash diets and other unhealthy measures. Women also raised privacy concerns related to the taping process; taping is done by a yeoman and not a medical professional, and women have to undress for the procedure while men do not. Male focus group participants did not raise weight standards except to say they are more difficult for women to meet.

Sexual harassment and assault: Female focus groups mentioned sexual harassment and assault as a retention factor. Participants stated that women who experience an incident of sexual harassment or assault in the Coast Guard may leave the service, with some participants relaying personal experiences of sexual harassment or assault but choosing thus far to remain. Some participants feared being assaulted while underway and mentioned that alcohol consumption during port calls can result in sexual assaults, with women typically being blamed for the incident. In addition, participants noted that units with only one or two women assigned or units in remote, isolated environments tended to experience sexual harassment or assault more often. They also lacked confidence in how leadership handles these cases, saying that perpetrators are often not punished and incidents are swept under the rug. Participants noted that women are less likely to report incidents in the absence of female senior leadership or other female members in a unit or underway. Participants described women being hesitant to report incidents because they fear retaliation, negative career impacts, or alienation from their unit. Male focus groups also raised sexual harassment and sexual assault as a factor in women leaving the Coast Guard.

Workload and resource issues: Both women and men raised workload and resource issues as influencing retention decisions. Participants described consistently being asked to "do more with less" and feeling overworked. Often this is because of units reportedly being undermanned; resulting extra work hours can affect members' work-life balance and lead to burnout. A lack of other types of resources—even simple office supplies—reportedly affected members' ability to be effective at their jobs to the detriment of job satisfaction and morale.

Career Factors

For female participants, career factors resonated to a lesser degree than work environment, while the reverse was true for male participants. The three career factors that were raised most often for female participants were advancement, assignments, and civilian opportunities.

Advancement: Women expressed frustration with advancement opportunities, though this issue resonated to an even greater degree with male groups. Women viewed the promotion process as a "black box" in that it was often unclear why one person was promoted and another was not. Enlisted female participants noted that advancement was linked to being a good test-taker rather than performance in day-to-day jobs. Some women also raised the issue of sea time required for advancement. For those who

wanted to pursue afloat careers, they described female berthing restrictions limiting their assignment options and opportunities for sea time. Some women perceived unfair and biased performance evaluations. In addition, some women said they routinely were assigned collateral duties that are stereotypical female activities and are less likely to support career development.

Assignments: Different aspects of assignments were also a retention factor for female participants. For example, some concerns were about "bad" locations that are far from family or remote with few other women. Several participants also raised concerns about working with detailers, saying it could be frustrating and unpredictable and that they felt that detailers tended to help friends receive sought-after assignments. Women described that not receiving requested assignments—repeatedly, not just on occasion—and being given assignments that did not align with their career interests, skills, and geographic preferences could cause them to leave. Male participants had mixed feedback regarding the degree to which assignments affect retention decisions.

Civilian opportunities: This issue was raised in female focus groups as a reason to leave the Coast Guard; however, it was much more prevalent in male focus groups. Participants mentioned perceptions of better pay and not having to go underway, and some women cited a less male-dominated culture in civilian fields with fewer gender-related climate or culture issues. Participants also said some women may want to pursue new career fields that are not available to them in the Coast Guard or develop their career in a different way.

Personal Life Factors

We also sought to capture retention factors related to all female members' personal lives, regardless of marital or parental status. Across all groups, women indicated that family was a key influencer in any decisions to leave or remain in the Coast Guard, and some predicted that, at some point in their career, they might be forced to choose between family and the Coast Guard.

Spouses and partners: Across focus groups, women indicated that spouses were a key factor in retention decisions.[5] The considerations varied based on whether the spouse was civilian (e.g., frequent moves that affect the spouse's employment, societal gender norms, lack of support from the Coast Guard community) or military (e.g., assigned to different locations or locations that are in proximity but require a significant commute to live together, child care issues, managing two successful military careers). Many women noted that they felt forced to put off marriage because of their Coast Guard career, and others said colocation issues caused them to delay having children. Some participants expressed frustration that their needs to accommodate a spouse's career

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[5]   Our discussion of spouses included same-sex spouses or partners. We did not hear unique themes related to having a same-sex spouse or partner, however.

were not taken into consideration during the assignment process. Male participants expressed similar themes regarding the impact of spouses on their retention decisions.

Children: A key issue for women was the impact of extended deployments and work requirements (e.g., standing watch) on their children. These concerns were magnified especially when both parents were in the military and there was the potential for competing schedules. Related concerns were the general difficulties of balancing the demands of careers and child-rearing, such as time off to care for a sick child and the effect of frequent transfers on children. Another recurrent theme was the difficulty of finding quality child care at the last minute, overnight, or for extended periods. Participants also raised concerns regarding the child care subsidy amount that is available to them and knew individuals who were leaving the Coast Guard because of child care costs.[6] Many of these same themes regarding children were raised in our male focus groups as well. However, some men viewed their female spouse as being responsible for child care; therefore, for some men, children were not viewed as affecting their retention decisions.

Pregnancy: Wanting to have children was cited as an important influence on women's retention decisions. Women described feeling that they had to time their pregnancies or delay having children to maintain their Coast Guard career. For example, certain specialties and ratings (e.g., pilots, those that include working with chemicals or going underway) require certain qualifications and experiences, and opportunities to gain those can be affected by pregnancy and then parental leave following the arrival of a child.[7] In addition, performance evaluations are not allowed to indicate that someone was out for pregnancy-related issues or parental leave. As a result, many women described having sparse or noncompetitive evaluation reports compared with their peers, which can make it hard to get promoted. Women also described being stigmatized for light duty, perceiving that their peers are frustrated with having to fill in during a woman's parental leave or being accused of getting pregnant just to get out of duties or having to go underway.

Breastfeeding support: Participants also raised concerns about a lack of breastfeeding support when they return from parental leave, including a lack of appropriate facilities and the reluctance of some commanders to allow proper breaks for pumping breast milk. These issues were also often exacerbated in certain specialties, such as pilots who are expected to be in the air for many hours or individuals standing watch overnight. Women on cutters had the added difficulty of needing to ship frozen breast milk home. These challenges led many women to quit breastfeeding sooner than desired.

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[6]   After we completed our focus groups in the summer of 2018, the subsidy was increased for high-cost locations (e.g., Washington, D.C.).

[7]   The Coast Guard's parental leave policy covers both maternity convalescent leave following the birth of a child as well as caregiver leave for a primary and secondary caregiver. See Jasmine Mieszala, "New Policy: Parental Leave," *Coast Guard All Hands* (blog), June 29, 2018.

Other personal life factors: In addition to the above themes related to personal lives, female participants, particularly those who were not married and did not have children, raised several other topics, but these were discussed with less frequency across groups. These included concerns over needing to provide increasing care for aging parents, challenges in developing friendships and having a support network, and difficulties dating for single women because of frequent moves and underway requirements.

Reasons to Stay

Both men and women mentioned health care, retirement, and educational benefits as the main reasons they remained in the Coast Guard. These benefits were important for their families' needs and financial security, and retirement benefits were an incentive to stay until the 20-year mark. Participants reported the mission and work as other retention factors, finding them to be rewarding, fulfilling, and something to which they are proud to contribute. Both men and women also noted the people in the Coast Guard and the sense of community and camaraderie. Other factors were job security, financial security or independence, and family stability. Notably, some female participants said they wanted to stay in the Coast Guard to serve as role models for junior women and to help increase the number of female leaders and create a more positive climate for future female members.

Quantitative Findings on Gender Differences in Retention

We analyzed recent Coast Guard data to describe gender differences in continuation/ retention patterns, identify characteristics that potentially contribute to the differences, and explore the impact of these differences on the long-run composition of the workforce. The analytic file combining 12 recent years of personnel data with histories of cutter deployments and data from other sources shows that there are meaningful gender differences in retention in both the enlisted and officer active-duty forces. We found that most retention differences occur in the first ten years of service, after which male and female continuation rates appear more similar. In other words, if future cohorts' late-career retention patterns are similar to previous cohorts in the data, policy changes addressing the drivers of these early-career retention gaps could produce retention patterns among women that are more similar to those of men.

Further analyses show that some underlying differences in the characteristics of women versus men appear to contribute to these differences, in that portions of the gap could be related to differences in family status, occupations, and deployment tempo.

In more detail, differences in characteristics include the following:

- *Personal life-related descriptors.* The most common family status for active-duty women is to be unmarried without children. Conversely, married with one or

more children is the most common status for men. Personnel with children tend to have higher retention than those without children.

- *Occupation-related variables.* A plurality of enlisted women work in service/support ratings, followed by operational ratings and engineering ratings, while prevalence among enlisted men is the reverse. For women, service/support ratings have the most retention and operational ratings the least. On the other hand, men have almost the exact same average retention levels in each of the three rating categories. For officer occupations, men have more than triple the likelihood of being pilots compared with women, and pilots have substantially higher retention (likely due, in part, to longer service commitments associated with flight training).
- *Ashore versus afloat.* Men are more likely than women to be afloat. Those in the afloat sector consistently had higher retention than the ashore sector for both men and women. For enlisted members, sea time on cutters other than the high-endurance vessels (378s and National Security Cutters) was particularly limited for women.

Although the analysis of personnel data highlighted some potential contributors to the retention gap, the personnel data analyzed cannot explain most of the retention gap. The analysis was limited by the data available, as well as by the ability to quantify some of the retention factors identified in the focus groups and the complexity of the decisionmaking process.

Finally, our workforce projection model shows that the gender differences in retention could substantially limit female representation in the long run, especially among the senior levels of the active-duty force. Because all leaders are promoted from within, relatively low retention for women also reduces the supply of potential female leaders. Using a basic workforce projection model, equalized retention between men and women would increase female representation in the active-duty force by more than 3 percentage points. The increases among senior-level personnel resulting from equalized retention were larger in magnitude: 7 percentage points in the enlisted/warrant officer tier and 8 percentage points among commissioned officers. In addition to measuring the impact of gender differences in retention on the long-run workforce makeup, we also demonstrate how such techniques can be useful to assess different policy scenarios. Given concrete alternatives that decisionmakers plan to take and their desired retention effects, such models are helpful for illuminating the long-run work-force changes that could result from different courses of action.

Recommendations

Based on our research findings from these analyses, we propose recommendations for initiatives aimed at improving female retention in the Coast Guard and addressing

barriers contributing to the retention gender gap. We do not offer recommendations to address every factor identified in our findings individually; rather, we provide recommendations that address the most prominent themes and that are intended to have broad-reaching effects that should touch on all key retention areas identified. Our analyses found that there is no "silver bullet" solution to address the gender gap in retention and that multiple factors influence final retention decisions. Our recommendations acknowledge this, and we propose a series of initiatives aimed at collectively addressing retention barriers. In proposing these initiatives, we also sought to align with and build on previous Coast Guard research where appropriate. Additionally, our recommendations and related initiatives are intended to address concerns from all female members, regardless of marital and parental status, to the extent possible. Our proposed initiatives fall under three overarching categories of recommendations.

Update Coast Guard Personnel Management Systems to Better Meet the Needs of the Coast Guard's Current and Future Workforce

To continue to meet the needs of its diverse members with different personal lives (e.g., women, single parents, two-career households) and to retain its diverse workforce, the Coast Guard must continue to reevaluate its current personnel management systems to ensure they provide equitable opportunities for all.

Explore Options to Augment Unit Human Capital During Parental Leave

To address and diminish the stigma women often face related to being away from their unit leading up to and during parental leave,[8] we recommend two options for the Coast Guard to explore to augment units with additional manpower during parental leave or, if necessary in certain circumstances, during pregnancy as well. First, the Coast Guard can leverage support from reserve members through Active Duty for Operational Support (ADOS), allowing available reservists to temporarily augment a unit while members are on parental leave, including limited medical duty beforehand if applicable, so that the unit manpower levels will remain the same. Another option is to explore supplementing units by allowing members to transition to Temporary Limited Duty (TLD) status during parental leave, opening up the member's billet for another member to fill during parental leave. Although this focuses specifically on women who may be pregnant and on parental leave, this option should help address stigma for all women in the Coast Guard.

Explore Options to Minimize the Impact of Parental Leave on Evaluations and Promotion

To address the perception that pregnancy and parental leave following the arrival of a child could negatively affect female members' evaluations and promotion potential,

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[8]   The Coast Guard's parental leave policy covers both maternity convalescent leave following the birth of a child as well as caregiver leave for a primary and secondary caregiver. See Mieszala, 2018.

we recommend several promotion flexibilities that the Coast Guard could offer to ensure advancement opportunities are fair and women are not inadvertently penalized for having children. First, we recommend that the Coast Guard allow its members to choose to extend their evaluation period in situations where they feel that parental leave or pregnancy restrictions will cause their evaluation report to suffer substantially. Another option we recommend the Coast Guard consider is for members to be allowed to extend their current assignments to give them time in the unit equivalent to the amount of time other members have to complete qualification requirements. Finally, we recommend the Coast Guard consider allowing its members to choose to delay their promotion window to account for time away for parental leave following the arrival of a child or pregnancy restrictions.

Continue to Explore Solutions to Improve Child Care Options

The Coast Guard has worked to provide several options to help members with child care; however, finding child care can be particularly difficult in more remote locations. In addition, even when child care options exist, they typically do not accommodate overnight or extended care often associated with Coast Guard duties. To help address this gap, we recommend the development of a centralized information repository that Coast Guard members could access that includes information on local child care options Coast Guard members have used in the past, including day-care centers, babysitters, and nannies in the local area. The information repository could be managed by regional family resource specialists, who already try to collect this type of information, in coordination with ombudsmen and spouse groups, but it should allow members to input information directly so that they can share their experiences and resources with others.

Consider Modifying the Weight and Body Fat Standards Program to Minimize Potential Negative Impacts on Female Members

Women perceived inequity with the current Coast Guard Weight and Body Fat Standards Program and raised concerns regarding body fat measurement through taping. We recommend the Coast Guard reevaluate and consider modifying the current weight standards, assessing the objectives of the program and aligning the standards accordingly. We recommend the Coast Guard also explore alternative measures (e.g., waist circumference, physical fitness test option, fitness-fatness index) to either replace or augment current standards to address perceptions of gender inequity and promote accurate measurements aligned to program objectives.

Continue to Explore Creative Solutions to Female Berthing Limitations

We recognize that the Coast Guard is making strides to convert berthing facilities to include mixed-gender options and incorporate mixed-gender berthing into new assets. However, women suggested that there is still room for improvement so that they have equal opportunity for assignments that meet sea-time requirements often needed

for advancement or promotion. We recommend the Coast Guard continue to explore creative solutions to the current limitations to female berthing (e.g., more flexible privacy options for boats without permanent physical barriers in place) with the goal of making all assets mixed gender.

Develop and Implement a Communication Plan to Ensure All Members Are Aware of Relevant Policies and Priorities, and Strengthen Leadership Education to Foster Inclusive Work Environments

The Coast Guard has made a good deal of progress identifying the need for and establishing female-relevant policies and policies that support the needs of members' families and personal lives. However, focus group participants indicated that the implementation of these policies was inconsistent in practice and affected women's retention. To address this issue, we recommend the Coast Guard pursue communication and educational efforts aimed to improve policy awareness and understanding as well as emphasize these as priorities for the Coast Guard. This should include an increased level of leadership development training to address leadership issues identified in our analysis that are influencing women to leave the Coast Guard.

Communicate and Educate Leaders and Members on Female-Specific Coast Guard Policies

According to female members, Coast Guard leaders may be unaware of or unfamiliar with female-specific Coast Guard policies (e.g., lactation breaks, grooming standards for women), despite the service's efforts to put these policies in place, leading to inconsistent policy implementation. To address this issue, we recommend the Coast Guard develop a communication and education plan for leaders that ensures leaders are fully aware of and understand female-relevant policies and emphasize the importance of adherence to these policies. This communication and education plan should be implemented in a manner that does not contribute to additional bias towards female members. We also recommend female-relevant policies be clearly communicated to all members and be readily available for female members to access and review.

Expand Opportunities for Comprehensive Coast Guard Leadership Development Training

We recommend the Coast Guard expand mandatory leadership development training, including more frequent development training throughout a member's career and for longer periods of time. This training can help to inculcate leadership core competencies, emphasize the need to support subordinates' work-life balance along with achieving the mission, and create an inclusive unit climate that is a positive environment for all members and addresses negative work environment factors identified by women. Additionally, leadership training should emphasize the importance of mentoring other members and, in particular, reaching out to junior female members.

Emphasize to Assignment Officers the Importance of Assignment Policies Designed to Meet the Needs of Members' Personal Lives

Because women still cite assignment process outcomes as unfavorable, despite existing relevant assignment policies, it is unclear how often these policies are implemented or when the needs of the service prevail. We recommend the Coast Guard continue to emphasize policies that support colocation, geographic stability, and other personal and family life considerations and direct assignment officers to prioritize these policies whenever possible. Additionally, we recommend the Coast Guard increase the transparency of the assignment process so that members better understand assignment outcomes and how their preferences and personal life needs were considered in the process.

Promote Accountability and Monitor Effectiveness by Establishing and Tracking Relevant Metrics

The Coast Guard has invested resources to identify barriers to improving female retention and made progress in updating policies to address female members' concerns. However, to understand how resource investments and policy changes (both existing and those made in the future) affect female members' retention, the Coast Guard must define and consistently track relevant metrics to measure progress. Additionally, establishing metrics and measuring progress is necessary to promote accountability and maintain a focus on improving female retention in the Coast Guard.

Continue to Monitor Retention Trends and Track Reasons for Attrition

As a foundation, the Coast Guard should continue to examine basic gender differences in retention trends, including potential differences within specialties or ratings that may exist. As the Coast Guard moves forward with various initiatives designed to address retention, these trends will be important to monitor and assess whether they are having the intended impact. In addition, the Coast Guard should continue to examine and track reasons for attrition from the Coast Guard through its Career Intentions Survey and exit surveys. This is important to being able to monitor trends and the impact that changes in policies and programs may have on retention intentions. Most importantly, the efforts to track retention intentions and reasons for attrition on exit surveys must remain consistent over time.

Ensure Workforce Data Track Relevant Variables in a Comprehensive Manner

The quantitative analysis was limited by the available Coast Guard workforce data and could have explored additional factors if these variables had been present in the data set. To enable future retention analyses, we recommend the Coast Guard make efforts to track workforce data elements that have been identified as potential barriers to retention. These data elements may currently be available in snapshot form, but to assess their impacts over time and effects on retention, they must be tracked such that they can be measured over time.

Implementation

We also provide a framework that the Coast Guard can use when planning implementation of the proposed initiatives by assessing initiatives in terms of *potential for impact* and *implementation difficulty*. We estimate potential for impact based on the retention barriers the initiative is addressing and their prevalence in our analysis. We assess implementation difficulty based on the relative complexity of initiatives, broad estimates for resource investments required, time required for implementation, and potential for unintended consequences due to substantial changes to personnel systems or policies. Using these dimensions, the framework identifies initiatives as *quick wins*, *contributors to incremental change*, or as contributing to *enduring systematic change*. These categorizations are intended to help the Coast Guard as it prioritizes which initiatives can be implemented easily in the short term versus those that will require some consideration of potential trade-offs and unintended consequences prior to implementation to ensure that efforts are successful. We consider those initiatives focused on promoting accountability and monitoring effectiveness as *enabling constructs* that serve as the foundation of implementation efforts.

Acknowledgments

Abbreviations

ADOS	Active Duty for Operational Support
AFQT	Armed Forces Qualification Test
BM	boatswain's mate
BRS	Blended Retirement System
CCRs	cumulative continuation rates
CDCs	Child Care Development Centers
CG	Coast Guard
CG-126	U.S. Coast Guard Office of Strategic Workforce Planning and Human Resources Analytics
CG-127	U.S. Coast Guard Office of Diversity and Inclusion
CGRC	Coast Guard Recruiting Command
COMDTINST	Commandant Instruction Manual
DACOWITS	Defense Advisory Committee on Women in the Services
DAFHP	days away from home port
DoD	Department of Defense
EERs	Enlisted Evaluation Reports
FBI	Federal Bureau of Investigation
FY	fiscal year
GAO	Government Accountability Office
HSOAC	Homeland Security Operational Analysis Center
MLDC	Military Leadership Diversity Commission
MST	Marine Science Technician
NSCs	National Security Cutters
OERs	Officer Evaluation Reports
OPFAC	Operating Facility
OPM	Office of Personnel Management

OS	Operations Specialist
PUMAs	Public Use Microdata Areas
RPM	Reserve Personnel Management
SK	storekeeper
STEM	science, technology, engineering, and math
TEMPSEP	Coast Guard Temporary Separation
TLD	Temporary Limited Duty
USCG	United States Coast Guard
YN	yeoman
YOS	years of service

Introduction

The U.S. Coast Guard's Human Capital Strategy and its Diversity and Inclusion Strategic Plan state that the Coast Guard will attract, recruit, and retain a workforce from all segments of American society to create a high-performing twenty-first century workforce (United States Coast Guard, 2015, 2016). A key part of this objective is the advancement and retention of women in the Coast Guard. Currently, however, data show that women leave the active-duty Coast Guard at higher rates than men.

Figures 1.1 and 1.2 show cumulative continuation rates (CCRs) of service for men and women in which each line represents the percentage of active-duty Coast Guard personnel who remain after completing a given number of years of service (YOS).[1] For both officers and enlisted members, there is a similar pattern where cumulative retention gaps between men and women emerge in the first ten years and then stabilize afterward.

For officers, Figure 1.1 shows that 83.9 percent of men remain after five YOS, compared with 78.3 percent of women, producing a cumulative gap of 5.6 percentage points. At ten YOS, the gap widens to 12.6 percentage points, and at 19 YOS, the gap has grown slightly to 12.9 percentage points.

For enlisted members, Figure 1.2 shows that 71.1 percent of men remain after four YOS, compared with 62.4 percent of women, producing a cumulative gap of 8.7 percentage points. At ten and 19 YOS—just before personnel become eligible for retirement—the gap is 12.3 percentage points. A key difference between enlisted personnel and officers is that enlisted personnel show substantial losses in the early-career years of zero to four YOS, which could partly stem from training attrition, and female retention is lower than male retention in this range. By contrast, there is little officer attrition prior to five YOS (the period of initial service obligation for Coast Guard Academy graduates, who make up the majority of commissioned officers with fewer than five total years of service) and no gender difference in this range.

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[1] These figures are based on annual snapshots of the active-duty force from Coast Guard personnel data. To calculate a cumulative continuation rate, we first calculated the fraction of members in each year of service who are present in the following year of data (i.e., the continuation rate). Then, the cumulative continuation rate for each YOS is the product of the continuation rates for all previous years. See Appendix E for more details on calculating continuation rates.

Figure 1.1
Cumulative Continuation Rates by Gender for Active-Duty Commissioned Officers,
Fiscal Years 2005–2016
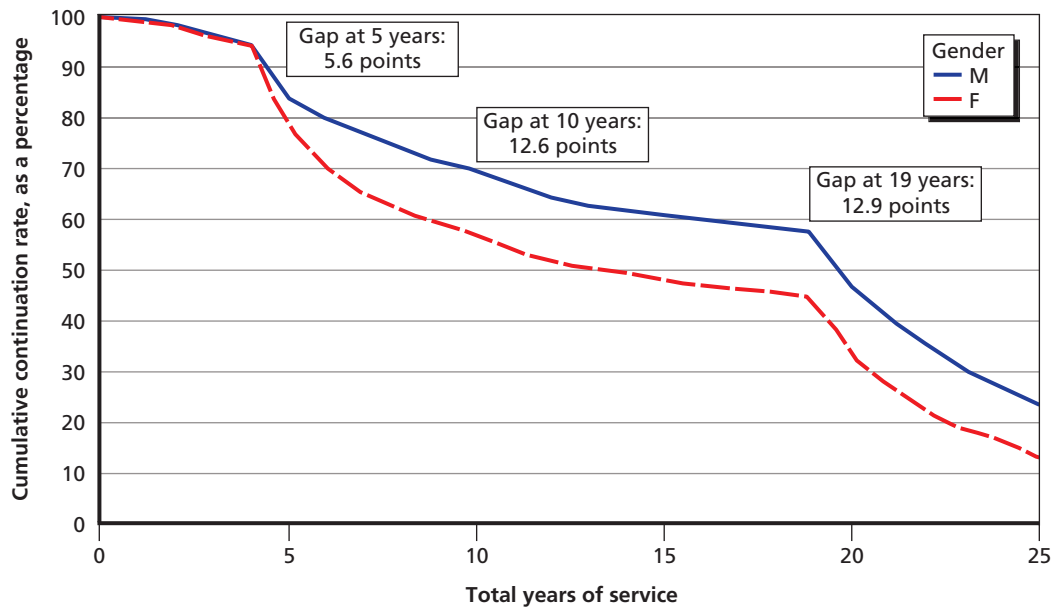
Figure 1.2
Cumulative Continuation Rates by Gender for Active-Duty Enlisted Personnel and
Warrant Officers, Fiscal Years 2005–2016
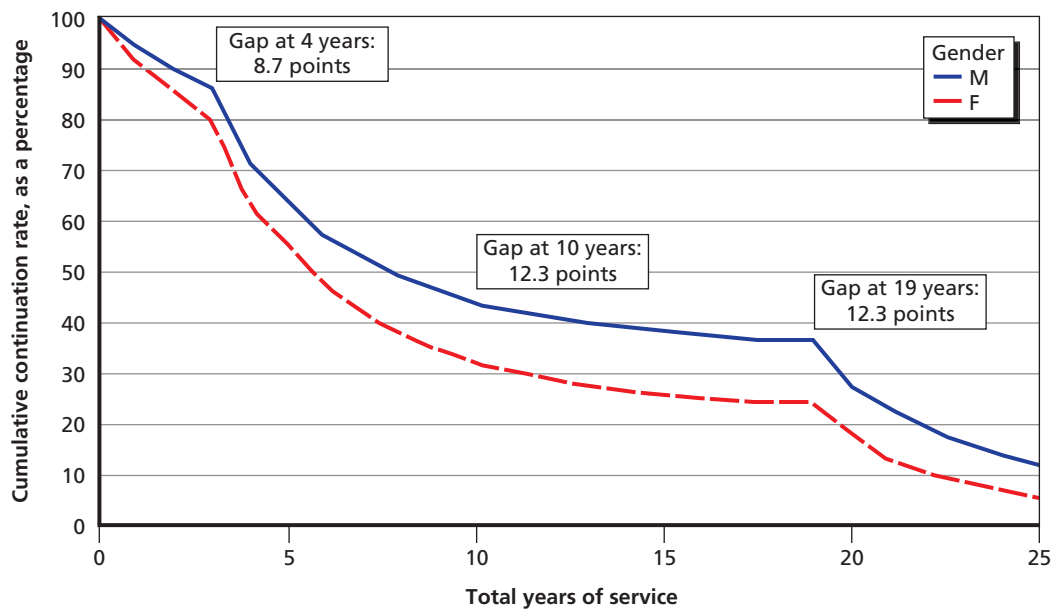
There has been some prior research on women in the Coast Guard and gender differences in retention. Key concerns for women in the Coast Guard identified in these past studies include the influence of not having a clear career path or opportunity for professional growth or education, concerns regarding having respect within the organization, and facing harassment. Studies have also highlighted the importance of several family or personal-related factors for women, including child care, spouse colocation, geostability, and policies toward pregnancy and breastfeeding (see Appendix A for a more detailed review of prior studies). Although each of the previous studies has provided some insight into female retention issues, many of these studies were smaller in nature and often focused on singular topics. Furthermore, the last large-scale study sponsored by the Coast Guard on women's issues was conducted in 1990, leaving a gap in current understanding regarding the issues women in the Coast Guard may face today that influence retention decisions.

To help develop a better understanding of current female retention issues, the U.S. Coast Guard Office of Diversity and Inclusion (CG-127) requested that the Homeland Security Operational Analysis Center (HSOAC) conduct a study to identify the root causes of female attrition in the active-duty Coast Guard and develop recommendations that will help mitigate identified barriers to the Coast Guard's retention of women.

Study Approach

The research team reviewed and tried to build on previous research examining women in the Coast Guard (see Appendix A) by taking a mixed-methods approach. We conducted the following research tasks:

1. Examination of female retention trends in the other military services and the private sector as a comparison for the Coast Guard.
2. Focus groups with a sample of active-duty female enlisted and officer Coast Guard personnel to better understand potential barriers to female retention.
3. Focus groups with a sample of active-duty male enlisted and officer Coast Guard personnel to understand male perspectives on barriers to retention and to serve as a comparison to female perspectives on barriers to retention.
4. A statistical analysis of Coast Guard personnel data to examine gender differences in retention of active-duty officer and enlisted personnel and whether certain characteristics can help explain these differences.

Our mixed-methods approach was designed to provide complementary qualitative and quantitative insight into potential barriers to female Coast Guard retention. Focus groups allowed us to solicit rich discussion of key factors that women in the Coast Guard consider when deciding whether to remain in the service as well as gather

opinions on steps the Coast Guard could take to help address those concerns. The sample of male focus groups further allowed us to identify which retention factors may be unique to women and which factors may be important to address for retention of all personnel. Finally, our quantitative analysis allowed us to identify the points in a Coast Guard career that have women leaving at higher rates and to assess the extent to which certain differences in male and female background characteristics can explain the gender gap in retention. The quantitative analysis also allowed us to further explore with data some of the concerns that emerged from our focus group discussions (e.g., impact of weight and body fat standards).

Based on the findings from our research tasks, we identify potential initiatives the Coast Guard could take to help mitigate potential barriers to female retention. We then provide an implementation framework to help the Coast Guard prioritize the proposed recommendations by assessing each recommendation's potential for influencing female retention and the projected difficulty of implementation. We also identify relevant metrics and associated time lines for implementation of the proposed recommendations.

Of note, many of our findings align with those found in previous research on women in the Coast Guard. Table A.1 in Appendix A outlines where previous research addresses the topics of our findings regarding key retention factors. Additionally, certain topics covered in our study recommendations have been noted in previous research to some extent. When outlining our recommendations, we include these references to relevant past Coast Guard research.

It is important to note that in examining retention, we focused specifically on active-duty members; it was beyond the scope of the current study to also look at retention in the reserve component or among Coast Guard civilian members who may face similar but unique issues related to retention. In addition, the aim of our focus groups and our final study recommendations is to identify and address factors that may influence voluntary decisions to remain on active duty or separate, regardless of whether the member may have chosen to join the reserves.[2] In our quantitative analyses, however, we did not have data differentiating reasons for attrition. Therefore, in our quantitative analyses, we define attrition based simply on whether or not a member is present in the active-duty force at some point in the future, conditional on being present at some initial point in time.

Organization of This Report

The remaining chapters in this report document the study findings and recommendations. Chapter Two provides an overview of female retention trends in the other

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[2]   We did ask members if they would be interested in joining the reserves when they separated from active duty. However, responses from participants were mixed, with many saying they were unsure.

military services and the private sector as a comparison for the Coast Guard. Chapter Three describes the key retention factors identified through the focus groups. Chapter Four describes the results of our quantitative analysis of Coast Guard personnel data. Finally, Chapter Five presents our overall conclusions and recommendations for helping mitigate identified barriers to Coast Guard women's retention.

The report also includes a number of supporting appendixes. Appendix A presents a high-level overview of relevant prior research on women in the Coast Guard. Appendixes B, C, and D provide greater detail on the focus group methodology, including an overview of focus group participants, the focus group protocols, and our qualitative coding approach and coding guide. Appendix E then provides an overview of the data and methodology for our quantitative analyses. Appendix F contains more detailed regression and decomposition results from these quantitative analyses. Finally, Appendix G describes an exploratory analysis of weight and body fat standards within the Coast Guard in support of one of our focus group findings.

Trends in the Retention of Women Across the Military and in the Civilian Workforce

This chapter provides additional context to our study of gender differences in retention in the Coast Guard. In the following sections, we describe the ways in which the Department of Defense (DoD) military services and the private sector face similar challenges in retaining women, with a review of some potential best practices from the private sector that the Coast Guard may find beneficial.

Trends Across the U.S. Military

Figures 1.1 and 1.2 in Chapter One show that gender differences in Coast Guard retention emerge in the first ten YOS for both officers and enlisted active-duty members. The cumulative continuation rates for officers show a gender gap that primarily emerges between five and ten YOS, once many personnel are eligible to separate. For enlisted members, the fact that gender differences emerge even in the first four YOS suggests that women have relatively low rates of completing initial training and first-term contracts, and the widening of the gaps between four and six YOS (when many complete their initial contracts) suggests that women have relatively low reenlistment rates. Prior research using DoD data in the post-9/11 era shows that each of these patterns is also present in the DoD military services.[1]

First, the Military Leadership Diversity Commission (MLDC) documented cumulative gender differences in officer retention at the ten-year point of 10 percentage points in the Army, 15 percentage points in the Navy, and 20 percentage points in both the Air Force and Marine Corps (MLDC, 2011), showing a similar pattern to the Coast Guard, although the magnitude is much larger in some cases. There are no published statistics on enlisted retention gaps that are directly comparable to Figure 1.2, because enlisted research often focuses on reenlistment decisions (which can be defined in multiple ways). Still, the MLDC (2011) documented that women often had

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[1] We were not able to obtain the data needed to conduct our own analyses for all services. Therefore, we provide an overview of previous research using similar methods to calculate retention trends.

lower reenlistment rates than men, and Asch et al. (2010) show that women have a higher probability of first-term attrition and a lower probability of reenlistment in the Army, even conditional on other characteristics, such as marriage and the presence of children.

Intraservice gender comparisons in retention implicitly assume that the best benchmark for female retention is the retention of men in the same service. However, retention of both men and women in the Coast Guard appears to be relatively high compared with the DoD services. For instance, the MLDC statistics show that cumulative retention through the nineteenth YOS for male officers in the DoD services was roughly 40 percent. The comparable rate for Coast Guard female officers in our data is 44.6 percent, meaning that Coast Guard female officers appear to be retained at higher rates than male officers in the DoD services (during the time frame examined in the MLDC analysis). The reason for the gender gap in the Coast Guard is that retention for male officers in the Coast Guard appears to be substantially higher than their DoD counterparts. Regarding enlisted members, it is again difficult to find published studies with directly comparable statistics. However, when looking at retention for early-career DoD members (a majority of whom are male), a study by Wenger et al. (2017) shows lower cumulative retention than the patterns among Coast Guard women in Figure 1.2.

Thus, some portion of the gender differences in Coast Guard retention could reflect aspects of service that are common to other members of the armed forces. At the same time, unique aspects of service in the Coast Guard appear to drive relatively high retention among men and women alike.

Trends and Best Practices in the Private and Public Sector

While the Coast Guard faces challenges addressing female retention, it is not alone. Many civilian career fields also struggle to retain and advance women through the ranks and into leadership positions. While there are few (if any) career paths in the civilian sector that directly compare to career paths in the Coast Guard, private-sector career paths can be instructive and provide best practices that may be applicable in some form to the Coast Guard. In determining what civilian career fields may be somewhat analogous to the Coast Guard and may be able to provide relevant best practice examples, we examined industries with a more closed promotion system in which the only path toward positions of greater responsibility and prestige is to grow up through the organization; there are limited opportunities for lateral entry to leadership positions. We also looked to find career fields in which there were specific industry credentialing requirements, similar to requirements within the Coast Guard.

To be clear, there are no perfect parallels in the civilian sector to the career life cycle and demands of a Coast Guard career. The most similarly structured civilian

occupations we identified are law enforcement and firefighting. These career fields also involve physically demanding tasks relevant to those required of Coast Guard members. In addition to law enforcement and firefighting, we also identified academia, law, and medicine as other industries that are somewhat similarly structured in having largely closed promotion systems and industry-specific credentialing. These career fields do not represent the type of physically demanding duties or tasks that take place within the Coast Guard, however. Finally, we also explored the traditionally male-dominated career fields of the technology industry and engineering.

It is important to note that there are limitations to analyzing women's retention among civilian employers. While many employers provide data on women's representation within their company, providing a snapshot of a particular moment in time, not all employers track or provide retention data. It is therefore difficult to determine what percentage of women remain with a given employer for a given number of years or how many remain with their employer until retirement. In particular, data on women's retention within police and fire departments was difficult to obtain. Moreover, analysis of women's retention within a given career field is further complicated by the fact that individuals may transition between several employers within the same industry. Where industry data is available, it is more likely to be provided by professional organizations than specific employers. However, existing representation data for women at significant career advancement milestones can provide some insight into barriers women face over the course of a career. The following sections examine trends, challenges, and best practices within the career fields we identified above.

We also want to note that one area of concern within the literature regarding women's retention in the private sector focuses on gender pay disparities. Several factors, including initial salary negotiation, job title, and work experience, contribute to the disparity. Recent research has also indicated that rather than a gender pay disparity, there is a "maternal pay gap," meaning that female employees without children fare nearly as well as their male counterparts, while women who become mothers face losses in lifetime earnings (Bertrand, Goldin, and Katz, 2010). However, it is important to note that within the Coast Guard and other military services, the pay structure (based on grade and time in service) is essentially gender-blind. Therefore, while an important factor in female retention in other career fields, this critical issue does not apply when examining women's retention in the Coast Guard.

Law Enforcement

Female law enforcement officers, whether in local departments or federal agencies such as the Federal Bureau of Investigation (FBI), the Secret Service, and Customs and Border Protection, face unique and specific challenges on their career path. Research suggests that female law enforcement officers can provide unique skills in that they may be less likely to use excessive force, are potentially better at de-escalating confrontations than their male peers, and can be more effective in addressing domestic vio-

lence cases (National Center for Women and Policing, n.d.). Yet despite these benefits, women only represent 14 percent of law enforcement officers nationwide. Challenges exist in both the recruiting and retention of female officers.

With respect to recruitment, the law enforcement community faces the perception that policing is a male-oriented profession (National Center for Women and Policing, n.d.). Additionally, law enforcement departments and agencies recruit heavily from the military, yielding cohorts heavily skewed toward male recruits.

While we were unable to find data on retention rates for female law enforcement officers, surveys of female police officers identify two major themes regarding female law enforcement retention. The first major theme is the existence of gendered occupational barriers. For example, in a 2015 survey, female federal law enforcement officers listed "lack of respect by male colleagues as the biggest barrier for women in federal law enforcement" (Yu, 2015, p.4). In the same survey, women also reported experiencing sexual harassment and sexual discrimination in assignments processes, promotions, and training opportunities (Yu, 2015).

Second, female law enforcement officers cite work-life balance issues as a threat to retention. Work-life balance issues including a lack of family friendly policies was found in the same survey by Yu (2015) as the second biggest barrier for women. The nature of shift work and the unpredictable nature of emergency response throughout the law enforcement community poses challenges to all employees, particularly parents. Furthermore, while promotions are desirable, they often lead to a change in shift or team, potentially imposing large trade-offs in work-life balance in order to facilitate career progression (Rabe-Hemp, 2008). Additionally, while law enforcement careers within local police departments provide geographic stability, federal law enforcement careers (such as the FBI and Customs and Border Protection) require relocation throughout a career in order to remain competitive for promotion (Yu, 2015).

The literature provides recommendations for meaningful intervention to increase female law enforcement officer retention, though data on successful implementation is not yet available. Given the impact of sexual harassment and gender discrimination on female law enforcement officer retention, departments and agencies can undertake proactive steps to prevent gender bias throughout the force. One potential mitigating step is early intervention in training academies, establishing equal respect early in police officers' careers (National Center for Women and Policing, n.d.). Additionally, the presence of both male and female instructors within training academies can establish clear performance expectations for all entering recruits (National Center for Women and Policing, n.d.). Finally, the literature suggests that formal and informal mentoring programs can provide female police officers with advocates within the department or agency and can help model norms for male and female officers alike (Hassell, Archibold, and Stichman, 2010).

Firefighting

Fire departments also face challenges in both the recruitment and retention of women. Within the firefighting community, women comprise 3.7 percent of career firefighters and 8.9 percent of volunteer firefighters (Haynes, 2017). While we were unable to locate data on female firefighter retention rates, fire departments at the local, state, and federal level acknowledge women's underrepresentation in the field, from recruitment through the senior ranks of fire chiefs.

For example, fire departments face challenges identifying and recruiting women who can meet the physical demands required of firefighters. All firefighters must pass a physical abilities test as part of their training; fire departments surveyed in 2008 reported a 47.3-percent pass rate for women and an 83.9-percent pass rate for men (Hulett et al., 2008). Fire departments may be able to increase the number of qualified women by targeting potential recruits and offering prefire academy physical training programs that demonstrate significant improvements in physical firefighting capabilities (Roberts, et al., 2002).

While retention data are sparse, female firefighters report workplace climate and gender issues that may affect their performance and retention. In a 2008 survey of firefighters, 84.7 percent of female firefighters responded that they have experienced different treatment because of their gender; 49.9 percent of female respondents reported that they had witnessed their female supervisors' authority being challenged because of their gender; and 36.5 percent of female respondents reported that they felt their gender creates barriers for career advancement (Hulett et al., 2008). Cultural norms such as hazing are reported as exacerbating perceptions of gender discrimination. And, while gender discrimination is more commonly reported than unwanted sexual advances, 30.2 percent of female firefighters still reported at least one incident in the course of their careers (Hulett et al., 2008). Such gender issues can affect absenteeism, as female firefighters experiencing sexual harassment and discrimination are more likely to use sick leave to avoid work (Rosell, Miller, and Barber, 1995).

Female firefighters also report challenges with respect to ill-fitting equipment. While more specifically a gender issue than a retention issue, the implications for ill-fitting equipment span a firefighter's career and can be detrimental to performance and promotion opportunities, which in turn may affect retention. The impact of ill-fitting equipment begins at the training academy, where men are tested with properly fitting equipment and women are more apt to struggle with tasks due to poorly fitted (generally oversized) equipment (Hulett et al., 2008). The challenges then continue throughout a woman's career. In a 2008 survey, 79.7 percent of female firefighters responded that they have encountered problems with ill-fitting equipment, which includes gloves, boots, coats, helmets, and breathing masks (Hulett et al., 2008). An investment in equipment designed specifically for female firefighters—or, at minimum, the provision of more uniforms in smaller sizes—could substantially mitigate this particular challenge for female firefighters.

Academia

Within the United States, the academic career path follows a fairly standard trajectory. All tenure-track professors enter the field after obtaining a Ph.D. Traditionally, individuals compete for nontenured assistant professor positions. However, most assistant professor positions are "tenure track," indicating that if individuals meet provisions laid out by their department and university, they may obtain tenure. The average time an individual spends as an assistant professor is approximately seven years. If offered tenure, academics are promoted to the rank of associate professor, where they spend approximately five years. Individuals typically are eligible to become a full professor at approximately 12 years of service.

In 2015, women comprised 48.9 percent of tenure-track professors yet only 38.4 percent of all tenured positions (Catalyst Knowledge Center, 2017). When evaluating women's progression through the academic career path, it appears that women's representation declines through the ranks (Figure 2.1). Women comprise over half of all assistant professorships—52 percent—but their representation declines to 45 percent of associate professors and 32 percent of full professors.

Major contributing factors affecting women's retention include the confluence of tenure-track time lines and family planning (Antecol, Bedard, and Stearns, 2016), and the colocation of dual-career academic marriages (Schiebinger, Henderson, and Gilmartin, 2008). These challenges mirror similar challenges in the Coast Guard. Some university systems have instituted "stop-the-clock" options for their faculty,

Figure 2.1
Women in Academia
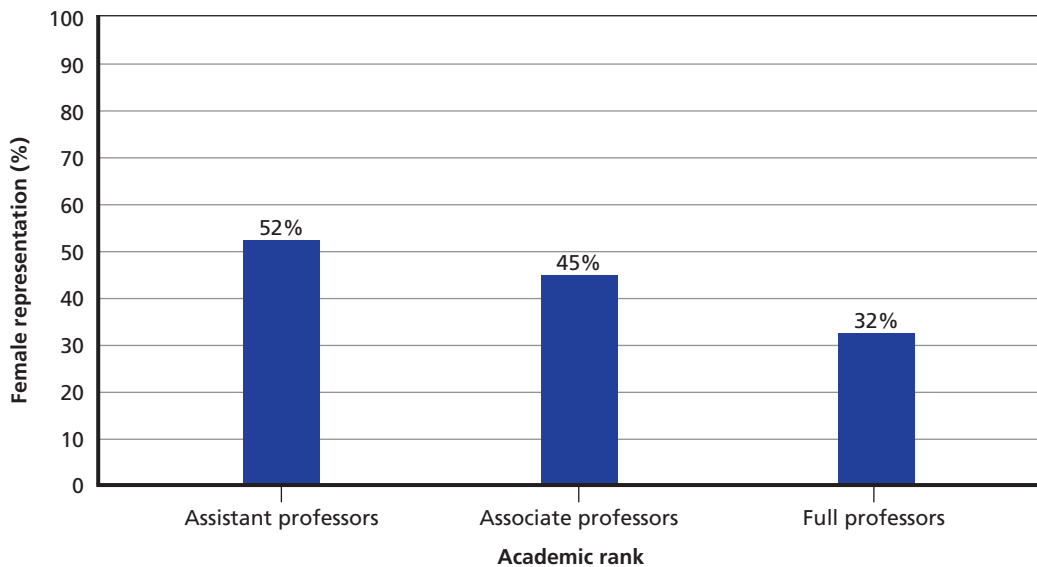
SOURCE: National Center for Education Statistics, IPEDS Data Center, 2016.

allowing individuals to take a leave of absence without affecting their tenure competitiveness. When they return, they face the same number of years left before their tenure review as when they began their leave (Center for WorkLife Law, 2013). However, such efforts have yielded mixed reviews. Studies on universities offering "stop-the-clock" options for maternity and paternity leave found that some men partaking in "stop-the-clock" initiatives use the provided time to produce more research and publications, and thus reenter their academic positions in a stronger position than their female counterparts and individuals who did not partake in "stop-the-clock" initiatives (Antecol, Bedard, and Stearns, 2016).

Additionally, female academics face challenges co-locating at the same university as their spouse if both spouses are academics. Among the academic community, 72 percent of all faculty have partners who work full-time, and 36 percent of faculty have academic partners (Schiebinger, Henderson, and Gilmartin, 2008). Universities using robust dual-career support find the practice to be an effective tool for recruitment and retention. However, universities have also found it necessary to ensure that the nonrecruited academic partner does not carry the "stigma of being less qualified" (Schiebinger, Henderson, and Gilmartin, 2008).

Law

While there are a variety of career paths available to attorneys, partner-track career paths at private firms provide the clearest example for comparison with women's careers in the Coast Guard. After completing law school and passing a state bar exam, entering attorneys typically serve as associates in a firm for six to nine years. In most large firms, those associates selected for promotion then spend one to three years as non-equity partners. Individuals then compete to become equity partners in the firm. Some equity partners may be further promoted to managing partner, though managing partners are rarer across the industry. While many factors contribute to promotion, the two most important are legal performance and driving new business.

The pipeline of women entering the law field is fairly robust. Since 1990, nearly half of all law school graduates were female. In 2016, female law student enrollment surpassed male law school enrollment for the first time, with women representing 51 percent of all law school students (American Bar Association, 2018). However, female representation in law firms diminishes nearly immediately, with women comprising 46 percent of entering new associates.[2] As the pipeline progresses, women's representation continues to diminish; women comprise 30 percent of non-equity partners and only 20 percent of equity partners (Figure 2.2).

Unlike their Coast Guard counterparts, female attorneys face compensation discrepancies when compared with their male colleagues. Female lawyers earn 89.7 per-

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[2]   It is important to note that some women will pursue legal careers outside of private law firms, which may explain some of this drop.

Figure 2.2
Women in Law Firms
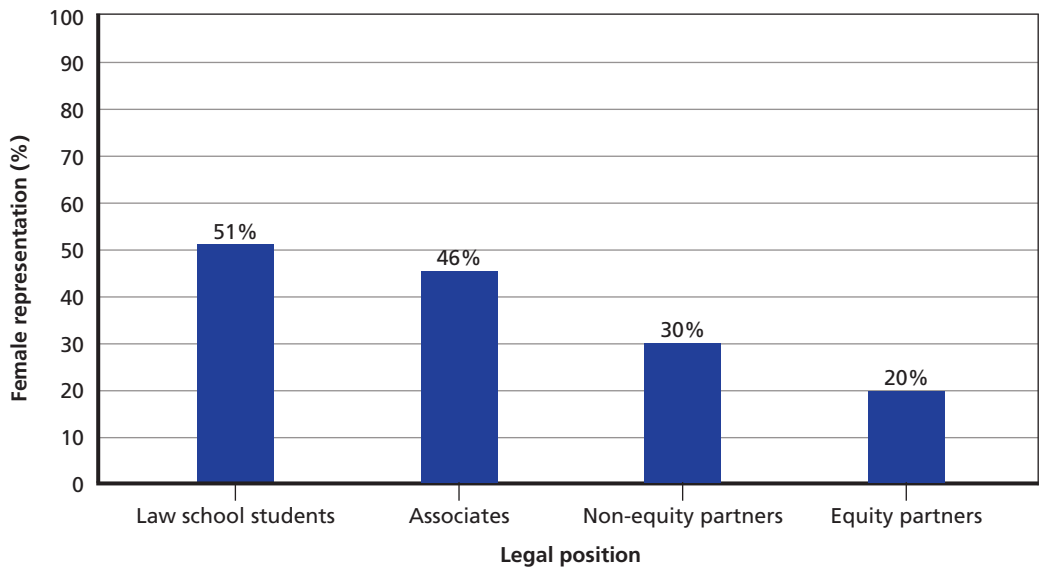
SOURCES: American Bar Association, 2018 (female law school representation data); Vault/MCCA, 2017 (female law firm representation data).

cent of what their male counterparts earn (U.S. Bureau of Labor Statistics, 2015). At the most senior levels, female partners earned $659,000 while male partners earned $949,000 (Lowe, 2016). While a number of factors contribute to pay discrepancies, one identifiable factor is that women are underrepresented on governance and compensation committees (Jaffe et al., 2016). While not completely parallel to military promotion boards, the imbalance in representation may reflect similar patterns of homogeneity.

Research indicates that the attorney evaluation process in law firms is fairly subjective (not unlike the Officer Evaluation Report process), and skews towards a "homophily"—that is, the tendency of individuals to associate and bond with others like themselves (Jaffe et al., 2016). This phenomenon has profound effects over the course of a career and may cause women to leave firms early if they anticipate challenges to future promotion/partnership. In turn, this reduces women's representation at the top and may repeat the cycle. Furthermore, beyond the subjectivity of evaluations, research indicates that the more objective measurement of billable hours also skews against women, who may be overrepresented in non-billable service hours to the firm and/or overrepresented on pro bono cases (Rikleen, 2015).

Medicine

As of March 2018, women comprised 34 percent of active physicians (Kaiser Family Foundation, 2018). However, women represented less than 10 percent of the top medi-

cal management positions—chief medical officers (3 percent), department chairs (6 percent), and division chiefs (9 percent) (Figure 2.3; American Medical Association, 2018). Additionally, while women's representation across the medical profession has been growing, their representation varies within specialties across the medical field. As of 2015, women represented more than 60 percent of pediatricians, more than 51 percent of OB/GYNs, and over 60 percent of trainees in dermatology (Grover, 2015). Yet women are vastly underrepresented in two prestigious fields that drive leadership positions in the field of medicine: women comprise only 38 percent of both surgical residents and academic medicine faculty, respectively (Association of American Medical Colleges, 2014b). There may be some parallels to be explored with the differentiation of women's representation across different career fields in the Coast Guard and the promotion potential or "elite status" of certain career fields (particularly in the afloat community) when compared with others (such as yeoman and storekeeper).

Women in medicine face a number of challenges similar to women in law and academia, particularly with respect to the timing of career milestones and fertility. For example, half of women are married to another doctor (Mangurian, et al., 2018), which can present problems for colocation. However, medical schools and hospitals have traditionally worked with couples to colocate them during residency if both partners register to be matched at the same hospital and if both partners are selected by the same hospital. Similar to the Coast Guard, individuals may then face trade-offs regarding their professional goals and the available options for colocation. Fields with

Figure 2.3
Women in Medicine
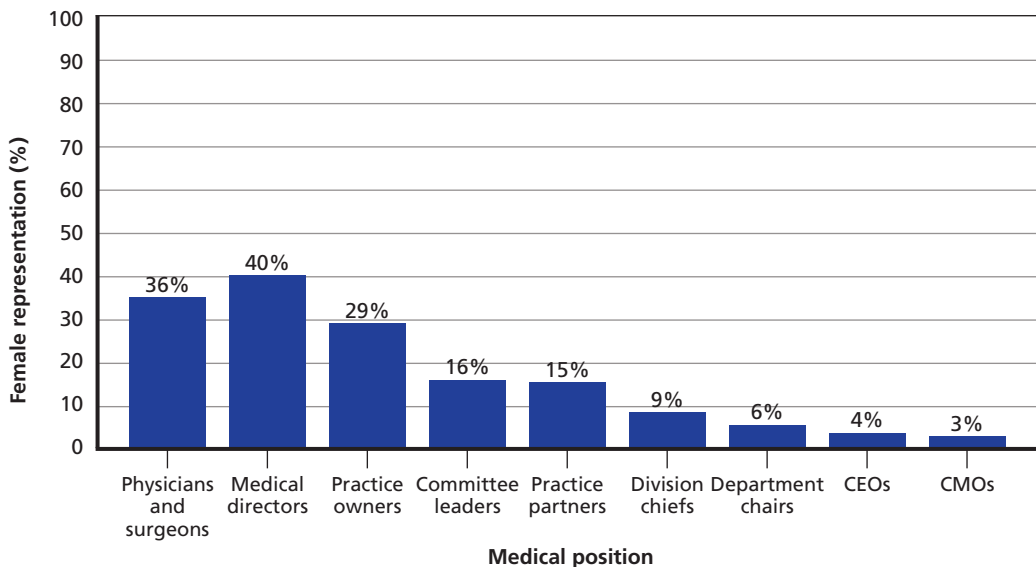
SOURCE: American Medical Association, 2018.

more unpredictable hours, such as surgeons or emergency room doctors, present scheduling challenges for parents of young children—particularly for families where both parents are doctors. Some hospital systems address these challenges by offering on-site or emergency child care (Mangurian et al., 2018). Some specialties, such as neurological or vascular surgery, require extensive training; the typical neurological surgeon will spend four years in medical school followed by seven years as a neurological surgery resident. During this time, the pace and intensity of training is such that pregnancy and maternity leave present challenging trade-offs (Chen, 2012). While hospital systems can provide supportive functions, such as on-site child care and lactation rooms, broader cultural issues surrounding the perception of pregnant female residents (particularly in neurological or vascular specialties) can affect women's experiences in the medical field (Chen, 2012).

Science, Technology, Engineering, and Math

Science, technology, engineering, and math (STEM) fields face challenges as well. Women represent 41 percent of "lower rung" employees within corporate STEM careers; however, prior research found that 52 percent left their private-sector STEM jobs while remaining in the workforce (Hewlett et al., 2008). When compared with other fields, women from STEM are more likely to leave their field completely than professional women from other occupations (Glass et al., 2013). Notably, women in STEM are more likely to leave the field because of dissatisfaction with promotion opportunities and pay disparities than for family reasons (Hunt, 2010; Glass, et al., 2013). In part, this dissatisfaction with promotion opportunities arises from a sense that career paths in engineering and technology are "mysterious"—that is, women feel it is difficult to understand the way forward in their career progression (Hewlett et al., 2008). In lieu of explicit career paths, relationships and sponsors thus become disproportionately valuable in the STEM field. However, women report that the presence of "old boy networks" isolates them early on in their careers and leaves them bereft of sponsors once they reach mid-level management positions (Hewlett et al., 2008).

To combat the effects of unclear career paths, employers in STEM companies are attempting to address these retention challenges through formal initiatives. For example, internal leadership development programs allow companies to target high-potential women. These programs provide female employees training beyond their technical expertise, focusing on management and strategy. Additionally, these formal programs provide a platform for companies to message (directly or indirectly) the skills and attributes they desire in candidates for executive roles and expose women to a range of mentors and sponsors. Companies such as Johnson and Johnson and Microsoft report positive outcomes on female retention through such programs (Hewlett et al., 2008).

Summary

Our review of retention trends within the DoD services highlights similar gender gaps that show women leaving earlier in their careers. However, we also found that the retention of both men and women in the Coast Guard appears to be relatively high compared with the DoD services.

We also found similar issues for women's career progression within the civilian workforce. While each of the fields we reviewed is unique, there are some consistent challenges to women's retention that may provide insights to the Coast Guard with respect to women's retention. Women encounter both "push" and "pull" factors throughout their careers, which may lead to them exiting their current employer, industry, or the workforce altogether. "Pull" factors include work-life balance concerns, such as colocation with a professional partner or issues surrounding pregnancy, maternity leave, breastfeeding, and child care. "Push" factors include disparities in promotion potential, the disproportionate assignment of "non-promotable tasks" to women, compensation gaps, and sexual harassment and gender discrimination. While civilian employers undertake a wide range of initiatives to recruit and retain women, the lack of data (particularly within law enforcement and firefighting) presents challenges to adequately tracking improvements in retention over time. By contrast, the Coast Guard is uniquely positioned to track and measure the effectiveness of female retention initiatives given the availability of retention data.

Focus Group Findings on Key Retention Factors

To better understand the factors women in the Coast Guard consider when deciding to remain in service, as well as to gather opinions on current Coast Guard policies and potential improvements that could be made, we conducted focus groups with active-duty women during the spring of 2018. We also held focus groups with a sample of active-duty men to provide a comparison regarding the importance of key retention factors. It was beyond the scope of the current study to hold similar groups with former active-duty Coast Guard members who had already separated. However, within our focus groups there were participants who indicated that they had already chosen to leave, which helped provide this perspective to some degree.

In this chapter, we give an overview of the focus groups and describe the key themes that emerged regarding factors women consider when deciding to stay in or separate from the active-duty Coast Guard. We also highlight those factors that we found to be common across men and women compared with factors that were unique to women or seemed to affect women to a greater degree.

Focus Group Background and Approach

We conducted focus groups with active-duty women in each of the nine Coast Guard districts and at Coast Guard Headquarters in Washington, D.C. In consultation with the study sponsors, we selected specific locations within each district that had a significant number of women assigned to the surrounding area and would have representation across communities. The final locations included Base Alameda, Base Boston, Air Station Detroit, Base Honolulu, Sector Houston/Galveston, Sector Juneau, Base Miami Beach, Base Portsmouth, Base Seattle, and Headquarters (Washington, D.C.) (see Figure 3.1). We also held separate focus groups with active-duty men at three of the larger locations: Base Alameda, Base Portsmouth, and Washington, D.C., Headquarters.

Figure 3.1
Focus Group Locations and Coast Guard Districts
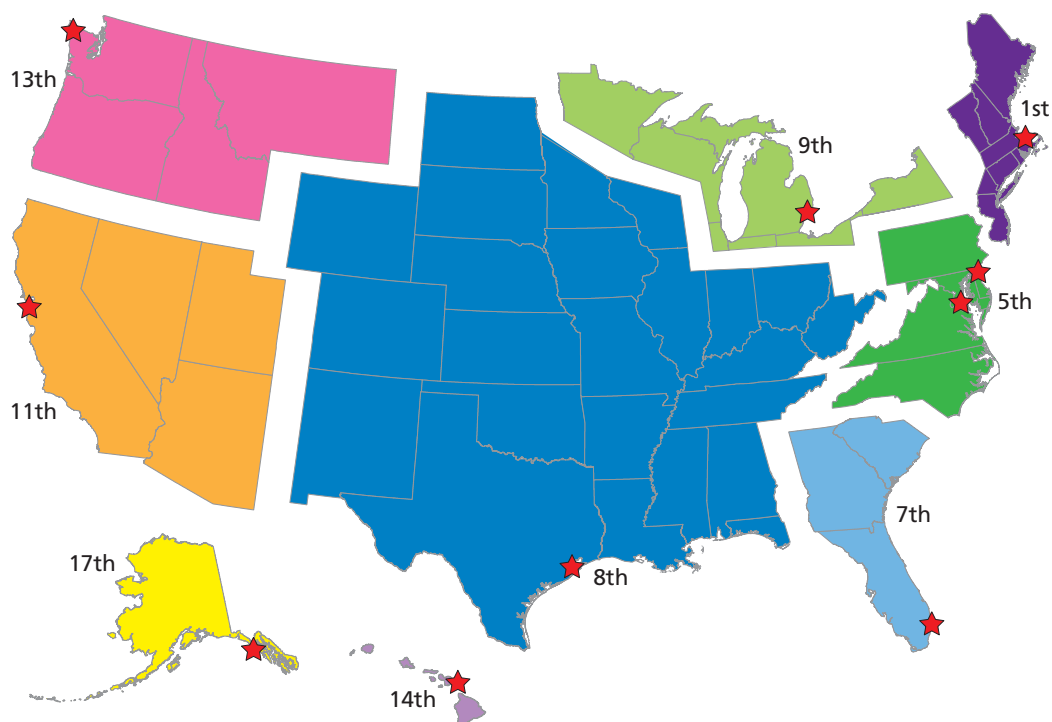
SOURCE: Map adapted from Coast Guard Legal Assistance web page, undated.

Participants

All active-duty Coast Guard members were eligible to participate in the focus groups. To advertise the focus groups, all active-duty women and men in the surrounding area of the designated locations were sent an email asking for voluntary participation in the focus groups (men were only included in three locations). Additionally, the Coast Guard issued an all Coast Guard message (ALCOAST) informing all members about the study and providing contact information for interested members to reach out and inquire about focus group participation. Designated Coast Guard local points of contact at each location also helped to advertise the study and encourage volunteers to participate in the focus groups.

Across the ten locations, we held 164 focus groups with 1,010 female participants and 27 focus groups with 127 male participants.[1] Our sample of men was considerably smaller, both because of fewer locations and response rates and because men are not

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[1]   Our focus groups included participation from roughly 17 percent of active-duty Coast Guard women. It is important to note that eliciting voluntary participation in focus groups can introduce self-selection bias in the participants.

Figure 3.2
Focus Group Participants by Corps

Male (n = 127)
27 focus groups

Female (n = 1010)
164 focus groups

Enlisted
Officer
Warrant
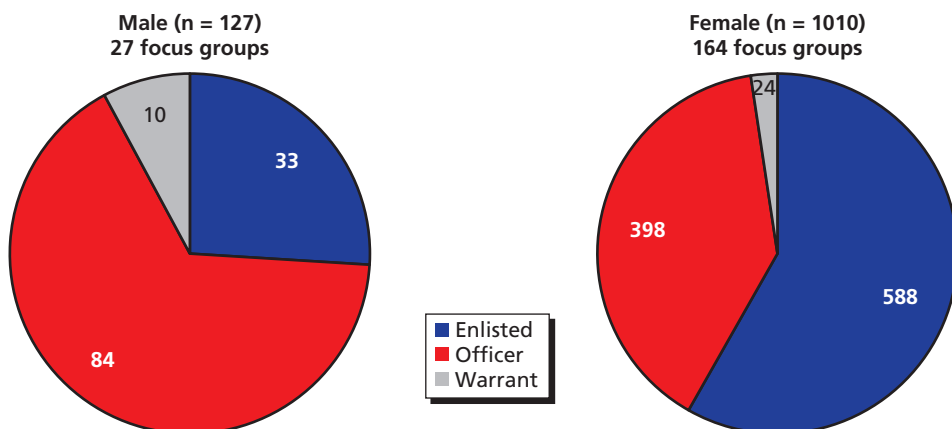
the primary focus of this study. However, we heard clear themes from these groups that allowed us to make comparisons. Figure 3.2 contains the breakdown across all focus groups by officer, enlisted, and warrant officer status.

We had representation across all enlisted and warrant officer paygrades as well as officer paygrades through Captain (O-6). Although not included directly in our analysis of focus group data, we also held interviews with a handful of flag officers to provide additional insight. Participants also represented a range of enlisted ratings and officer specialties. We present more specific descriptive statistics of participants in Appendix B.

Focus Group Structure and Analysis

We held separate focus groups by gender as well as by enlisted and officer status. To the extent possible, we also grouped participants by rank to ensure that junior members did not feel uncomfortable speaking in front of more senior members. Given that warrant officers were only a small proportion of participants, we let them self-designate to participate in either an officer or an enlisted focus group.

We began each focus group by providing participants with background information about the study and administering informed consent, in which we emphasized the voluntary nature of participation and explained how any personally identifiable information would be kept confidential by the research team. Focus groups ran roughly 90 minutes in length and asked participants about their career choices, factors they consider when deciding whether to remain in the active-duty Coast Guard, and how the Coast Guard might improve current benefits, policies, and programs to better retain women. We also asked participants about the extent to which three specific programs may affect retention decisions: (1) the Coast Guard Temporary Separation (TEMPSEP) program, which allows active-duty members to take a temporary separa-

tion to focus on personal interests or other personal issues and then return to active duty,[2] (2) educational opportunities and benefits (e.g., tuition assistance and GI and Post-9/11 GI Bill), and (3) the new Blended Retirement System (BRS). The BRS provides a new retirement option for service members in which they no longer need to stay for 20 years to receive retirement benefits. Instead, they can receive matching contributions to a Thrift Savings Plan and mid-career incentive pay; the BRS reduces the amount of compensation for staying in the service for 20 years, though.[3]

We asked men and women the same set of questions so that we could assess the extent to which we heard similar or different responses. In addition, to assess the extent to which there may be differences in perceptions of what was important to men versus women, we asked women what factors they thought contribute to men's decisions to stay in or leave the Coast Guard and asked men what factors they thought contribute to women's decisions. Appendix C provides the full focus group protocols.

Upon completion of the focus groups, we uploaded detailed focus group notes into a qualitative data analysis software program and coded the data to identify key themes and trends. We conducted a separate analysis of female and male focus group data and then compared key findings to identify retention factors that were common across both genders and those unique to Coast Guard women. Appendix D outlines our coding process in more detail and provides the coding guides used in our analysis. The remaining sections of this chapter now describe the key retention factors identified from our focus groups.

Focus Group Findings

In the following sections, we give more details on the specific themes that emerged from our focus groups. We first discuss findings related to career choices and aspirations. We then discuss findings related to key retention factors. Our analysis of the focus group data identified retention factors in the following categories: work environment factors, career factors, and personal life factors.[4] Additionally, we describe key reasons members *stay* in their Coast Guard careers. Finally, we discuss participant feedback on three specific programs and benefits: TEMPSEP, educational opportunities and benefits, and the new BRS. The findings we describe are focused on retention factors from our female focus groups, but at the end of each of the following sections we also note when themes overlapped or were markedly different in some way from the

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[2]   For more information on the TEMPSEP program, see Sarah Janaro, "Human Capital Strategy: Updates to the Temporary Separation Program," *Coast Guard All Hands* (blog), June 24, 2016.

[3]   For more details on changes resulting from the Blended Retirement System, which went into effect January 1, 2018, see Military Compensation, "Uniformed Services Blended Retirement System," webpage, undated.

[4]   Table A.1 in Appendix A outlines where previous Coast Guard research also noted these key factors.

male focus group findings. In addition, we note any differences that emerged in the findings between officers and enlisted personnel and member specialties/ratings and communities.

One of the strengths of focus groups is that they provide an opportunity to gather rich in-depth information regarding individuals' experiences and attitudes. It is important to note that participant comments and quotes reflect experiences and perceptions that, at times, might not align with current Coast Guard policies or practices. Although it was not within the scope of this study to reconcile any potential differences, perceptions influence behavior and are critical to understanding retention outcomes. Throughout the sections, we provide example quotes from the focus group discussions to illustrate the themes we identified. Where appropriate, we also provide the percentage of focus groups in which a particular theme was raised or discussed if it was not a topic area we had specifically asked or probed about. For example, we do not provide specific percentages regarding the influence of family or spouses since all groups discussed these topics. In other cases, a theme may have emerged that was not specifically probed, and we provide the percentage of focus groups in which the theme was raised spontaneously to provide a sense of its importance to participants. However, it is important to note that focus groups are intended to provide descriptive information and not precise statistical estimates regarding the relative importance of any single theme or the percentage of individuals who may hold a certain attitude, such as would be found using a survey. Instead, they are designed to be exploratory and provide greater context and insight into various issues and concerns. For our study, the goal was to better understand potential root causes of female attrition in the Coast Guard.

Career Choices

We asked all focus groups what influenced their career choices, including factors they considered for choosing specialties or ratings, whether senior leadership was or is a goal for members, and the quantity and quality of career feedback they may have received. Overall, both officers and enlisted service members chose specialties and ratings with interests or long-term goals in mind, but a number still made career decisions that did not consider these factors, which could potentially have retention implications down the line. Additionally, senior leadership is a goal for some but not for others because of institutional barriers such as difficulties in advancement, lack of respect for females, and work-life balance. Finally, participants also indicated that career feedback is not always useful or consistent, but there is a desire for feedback of some kind.

Choices for Specialty or Rating

Most female members stated they chose their career track based on their interests or related skills. Other considerations included being stationed with significant others, job satisfaction, stability, family, whether a career would be primarily ashore or afloat,

geographic location, and work-life balance. They noted that certain rates were more conducive to these considerations—mainly yeoman (YN), but also aviation maintenance technician, information systems technician, and marine science technician. In contrast, while boatswain's mate (BM) was desired by some wanting to go afloat, they recognized that this rate has a more difficult work-life balance. For those who wanted to pursue afloat careers, they recognized female berthing restrictions limited their assignment options, and this sometimes influenced their career choice decisions. For example, one woman stated, "Two ships were available for women and 13 ships for men. And women's berthing—that pigeonholes the options for us."

However, many women did not want to be underway so that they could have families and more control over their schedules and lifestyles. For example, one participant commented,

> I chose my rating specifically because there is a slim chance I'd ever be underway on a cutter. I knew if I wanted a family and a Coast Guard career I needed to choose a path that would allow that. I see these women come into the Coast Guard; they are 17, 18, 19 years old, and it doesn't come into their mind at all. As a recruiter, I don't want to tell them. The fact that if they are going to make it a career, their rating is going to affect their personal lives immensely. Being underway is difficult. I've never been underway myself, but I see the struggles that people have.

Another participant noted that she planned to leave the afloat community because of similar concerns. "I'm afloat now; did two afloats, but I don't plan to stay afloat after this because of the schedule and lifestyle."

Several female participants mentioned that, as junior members, they did not know what they wanted to do and were assigned what to go into, or they made decisions that were not well informed and they did not understand what their choice meant for their careers. This was especially true for junior officers and non-rates who have less exposure to different specialties and ratings. A major issue for all surrounded waitlist times for advanced training schools, resulting in a choice of one rating over another if it had a shorter waitlist. One participant noted,

> I never intended for [the] 20 years thing, and A-school lists were absurd; [there] was [a] four-year waitlist and didn't want to stay past initial enlistment for six years and didn't want to tack on more time. So [there were] only a few options for a year or less wait, and [the] best of those was YN. And, I don't really enjoy job or what I do, but checked the boxes I needed at the time, and [it's a] good job for family life too, but don't enjoy it as much.

Many others chose their careers in consideration of what skills could be brought into job opportunities outside of the Coast Guard. For example, another participant commented, "That's my ultimate goal when I do get out is to start my own business. I'm a storekeeper."

For those who changed their specialty or rating in their career, it was for reasons such as no longer wanting to be afloat or having had negative experiences. Other reasons were a decision to take TEMPSEP, legacy ratings that aged out, medical reasons, or changes in interests. In a few cases, some officers mentioned they were told to diversify for promotion. Male participants noted considerations that are similar to those mentioned by female participants in their career choices.

Senior Leadership Goals

We heard mixed comments from female participants regarding senior leadership goals, including senior enlisted leadership. Many do not or did not have senior leadership as a goal early in their careers. For those who are pursuing or have pursued senior leadership, many did not consider it early in their careers because they did not know how long they would stay in the Coast Guard or what opportunities would arise. For participants who discussed senior leadership as one of their goals, they described reasons such as a lack of female leadership and a desire to increase representation. Participants also described seeing poor leadership in others, which incentivizes them to be better leaders and creates a desire to represent positive female leadership. Some also noted the benefit of senior leadership was more money. It was understood that your exposure, opportunities, training, and ability to make rank guide your decisions to be in a leadership role. Two participants describe their desires for senior leadership as follows:

> I want [the] command chief to be there for juniors—not just females—so they can look to a senior female person. I had no one to look up to when I was deciding to get out to take care of my kids or stay in to work on my career. So that drives me to wanting to be in a senior leadership position.

> Just because you want to see change. You want to be change. I want to be change for what I've seen.

Some more senior women noted that they did not desire additional promotions so they could maintain work-life balance, attend to family responsibilities, or to accommodate colocation with spouses. Some participants described disinterest in leadership because of associations with an "old boys' club" and observing current female leaders dealing with negative comments and a lack of respect. Participants also described perceptions that there are difficulties to advancement: It mandates a poor work-life balance and long work hours, results in limited impact, and would require administrative work and supervision rather than the tactical work they currently do and prefer. Some junior females commented that their leadership goals are dependent on how they are

promoted and treated and noted that they do not want to be given leadership opportunities just because they are female. One participant commented,

> My rate advancement is very slow, and it's painful. And, it's a constant uphill battle. It's been a struggle so far even to get to the point that I'm at, and I just don't think that it is rewarding enough to do long term.

Another participant commented,

> [I] have a commander I work for, and she's great. . . . I see her and see how devoted she is. She looks out for people. When she sees that captain say dumb things, she speaks up. Then she gets talked to about how she interacts. People talk shit about her. I say no she is great. If a dude was doing that he would get positive feedback— "Oh, he's doing his job." But if it's a "she" then "Oh, she is harsh tongued." I see her; she gets her job done and is a high performer. Other people see it too. Seeing all that potentially dissuades me from pursuing a leadership position.

While not all male participants in our focus groups wanted to reach senior leadership for many of the same reasons as female participants, men did not mention avoiding senior leadership for issues related to leadership culture.

Career Feedback

Many female participants reported receiving feedback predominantly through official channels like Officer Evaluation Reports (OERs) and Enlisted Evaluation Reports (EERs), which they often considered "check the box" requirements that did not provide desired feedback on their career options or potential. For those who did receive feedback outside of official evaluation channels, the quality of that feedback varied significantly. Most stated that feedback came from seeking it out themselves and noted that it is rare to be approached by someone looking to provide career feedback, especially for enlisted members where it is perceived to be harder to receive feedback. For example, one participant noted, "On the enlisted side—you are on your own, and hope you get a good mentor. And, good luck navigating your career yourself!"

Many stated the amount, quality, usefulness, and consistency of feedback varies based on their current unit and the command leadership. Several more senior officers and enlisted members stated that they received no feedback until later in their careers, if at all, and some participants noted they were lucky to receive constructive feedback. One participant described this experience:

> First time recently for me [to receive feedback] too. He said, "Here are your marks, and what do you think?" I like it; I mean, I've been here 22 years and now finally someone gives a damn about helping me succeed. I'm grateful now, but that shouldn't happen.

For those who had negative experiences with feedback, some attributed it to their gender and noted that males often received more frequent and helpful feedback. For example, one participant said,

> I've heard a lot, "You're a female, you should do this, you'll be good at this." A lot of the stuff they say, that sounds good, but I've asked to do certain things and they say, "You're a female, you have family, you shouldn't do it," but for males who have children they don't hear that.

Overall, participants expressed a desire to receive honest feedback from people they trust outside of their chain of command and outside of formal OERs and EERs, which were not viewed as useful by most. Mentorship and a mentorship program tailored to females were also desired. Male focus group participants discussed similar issues regarding feedback quality and frequency.

Work Environment Factors

Female focus group participants raised a number of work environment factors that influence their retention decisions. The work environment factors raised most often in female focus groups include leadership, gender bias or discrimination, weight standards, sexual harassment and assault, and workload and resource issues.

Leadership

Many female participants detailed experiences with poor leadership in the Coast Guard as a factor that greatly influences retention. Some noted that experiences with toxic leaders, particularly early in a career, could cause women to leave the Coast Guard. One participant commented,

> The leadership and command was miserable in my last unit. I was a non-rate, and none of the BMs cared and didn't do anything to help us out. One BM was trying to stick up for us, and the XO [executive officer] said that "Non-rates aren't people. They are robots and . . . they don't have feelings."

Some women also noted perceptions that bad leaders often remain in the Coast Guard despite their behavior and even continue to be promoted. Participants stated that some male leaders can create an old boys' club climate that isolates, excludes, and discriminates against women. A participant commented, "I had a very bad experience with my prior command, and it was highly suggested by some of my superiors that gender had something to do with it." Women described experiences with toxic male leaders that they felt did not reach the threshold of reporting an incident of discrimination, but nonetheless said they felt that some leaders had a gender bias against women.[5] One

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5   Gender bias and discrimination are discussed in more detail in the section that follows.

participant noted instances of her peers leaving because of leadership and described experiences with these types of negative behavior, stating,

> I know several people that got out [because of leadership]—they say you don't quit a job, you quit a boss. Some [leaders] were blatant misogynists, and there is nothing you can report. It's micro-misogyny or micro-discrimination, and there are always enough things to support their misogynistic behavior. Everyone knows you can't prove it, so can't do an EEO [Equal Employment Opportunity] complaint, and when that happens boss after boss, why stay in?

Another participant relayed her experiences with a toxic leader during a past assignment:

> [My previous leader] was a terrible person, and terrible supervisor. . . . You could tell he was picked on as kid and treated poorly as an ensign and now that he has power, wanted to feel superior and would pick on us individually and was a mean, mean person and made my life miserable. I wouldn't eat in the wardroom and cried in my stateroom and wanted to resign my commission. I didn't want to be in the service because they not only keep these leaders but condone and promote them.

Some women also described leaders who were unsupportive of family life. For example, one participant described this comment from a Coast Guard leader: "I was told, 'Your baby didn't come in your sea bag.'"

Many women also detailed experiences with male leaders being uncomfortable around them and being less likely to mentor their female subordinates. One participant described such a situation, stating,

> The male leaders are afraid to mentor us. This leader, he mentored the guys like his sons, but there was a buffer when it came to us. They didn't have daughters and didn't know how to treat us.

Female participants also expressed feeling as though leaders often did not support them or "have their backs" and were very unengaged. Participants felt that going to a leader with an issue would not resolve any problems and no action would be taken on their behalf. One woman commented,

> We're in dry suits a lot on the boat crew. I have a female dry suit but a male bunny suit, so there's no way for me to go to the bathroom. When I requested a solution [from my leadership], they said it couldn't be justified as a cost.

Many participants also expressed frustration with leaders not having adequate qualifications or training to be in a leadership role. They described an overall lack of leadership training in the Coast Guard such that members are not provided good leadership development and often end up with poor leadership skills. Female participants

also described perceptions that many leaders are promoted because they are good test-takers, check the right boxes, or are good at the technical aspect of their job but have not demonstrated good leadership skills. One participant stated,

> We get people in leadership who aren't trained to be leaders, and there's no opportunity to get trained or better prepared. Every three to four years you get a crappy command, no matter what your positions or rating is. There are just so many promoted up who can't lead.

Participants also described experiences with leaders being unaware of Coast Guard policies, particularly female-specific policies. This often resulted not only in participants feeling like they needed to seek policies on their own when they were unsure, but also leaders interpreting policies in different ways and implementing inconsistent standards. One woman noted,

> My recruiter in charge had no idea on having a lactation room. He didn't even know about the pregnancy manual. I had a situation last tour where I was a victim advocate. I told a CO [commanding officer] what they need to do was to look down the checklist on how to handle sexual assault, and he didn't know where to find the checklist.

Some participants also commented on different interpretations of female hair regulations by leaders and that the same hairstyle would be deemed within regulation by one supervisor and out of regulation by another, much to their frustration.[6]

Despite extensive discussion about negative leadership experiences, female participants did note positive experiences with leaders as well, although to a lesser degree. Participants agreed that leadership could also positively influence retention decisions if a member had a strong, supportive leader and mentor. One participant commented,

> My chief that was a great mentor to me on my boat did take the time to talk to his female subordinates. And part of the talk . . . was about his knowing how hard it is to be a woman in the Coast Guard.

Leadership also resonated with male focus groups as a retention factor, but slightly less than with female focus groups. Male participants agreed that Coast Guard leadership training is lacking and that more is needed to better develop leadership skills in members. Men not only identified negative experiences with leadership as a potential retention factor for *male* Coast Guard members, but they also acknowledged that leadership could be a reason why *female* members leave the Coast Guard as well.

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[6]   These regulations were updated in August 2018. Focus groups were conducted before this date, so the female members' experiences described here predate any regulation changes.

Female Leaders

Beyond retention factors related to leadership more generally, female focus group participants also raised issues related to female leaders specifically. For example, some participants described witnessing a lack of respect for female leaders from some male members (as mentioned in the Career Choices section earlier in this chapter). One woman stated,

> That's another stigma for women who advance. Men do not want to work with you, and it discourages other women from advancing [after seeing the response female leaders receive].

Participants noted that they would like to see more female leaders to have role models and mentors. For example, one participant stated,

> As a junior female in the military, I think it's so important to have that female leadership. My last CO at my unit, she was a female, and she was a rock star. Being able to have that mentorship from another woman, I think that's so important.

However, some participants acknowledged that most female senior leaders did not mirror their own personal lives, such as being married with children and involved with family life. Participants noted that they often struggled to relate to senior women as role models for this reason and desired female role models who demonstrated the ability to have successful careers along with time for family. One participant commented,

> Of all the female admirals, only two of them had children. The rest of them did not have any children or were not married or were divorced. [One female admiral] was at the women's symposium. They asked her a question about being a female and a parent. And she was like, "I don't know. I don't have kids. You're going to have to ask somebody else."

Another participant stated,

> Even female mentors, some have great careers, but when I talked to them about their personal life, it was like, "I missed all these birthdays and I've never been to a sports game." That's not an option for me. It's hard for me to relate to some [female mentors] sometimes.

Beyond having female role models more generally, women in operational and/or more male-dominated ratings/specialties noted the particular importance of having female leaders. Participants felt that female leaders would be more likely to understand

their situation in these types of male-dominated environments, such as when under-way. One participant commented,

> Female leadership—it's paramount. People that join straight out of high school—and younger females . . . they are susceptible to things going on around them. You are highly outnumbered on a cutter and having strong female leadership is so, so important to female development. You need that role model and someone to aspire to be.

Male focus groups also acknowledged the lack of female leaders and how that might affect women's retention decisions.

Gender Bias and Discrimination

Frequently, participants in female focus groups cited gender bias and discrimination as a reason women leave their Coast Guard careers. In fact, although we did not explicitly probe this subject as part of the focus group questioning, over 80 percent of female focus groups raised this work environment retention factor.

Women described being treated differently than their male peers because of their gender. Many female participants noted having to work twice as hard as their male peers to prove themselves on the job and felt that males in the unit often did not trust or value their opinions or the quality of their work. For example, one female partici-pant stated,

> You can be in a meeting with men in the room and you say something and it doesn't get noticed. But if a man says it or even when your male subordinate says the same thing—then it's the greatest thing in the world!

This was described as particularly pervasive in male-dominated ratings or special-ties that have more of a "macho" culture. For example, a BM described being treated differently by her peers and having her skills undervalued because of her gender.

> Being BM, there are female BMs, but it's mostly guys and they have a reputation of being cocky and bravado and attitude. So, it's different being a female BM. When I first started, I heard a lot of, "Girls can't drive boats!" and, "Okay, you're good for a girl, I guess." I'm sure it's the same with MKs [machinery technicians].

Women also perceived bias in evaluations when in a command with a sexist cul-ture. This is explored later in the chapter when discussing career advancement. Female participants also described a "boys' club" culture in which women were excluded and isolated. Women described experiences in which male peers, and even leaders, would

avoid interacting with them and actively exclude them from activities. One participant commented,

> The boys' club still exists. . . . I've walked out of my office at 1 p.m. and all the men are golfing and the women weren't invited. My male counterparts talk about these experiences shared with our bosses and I've never had these experiences.

Another woman stated, "The seclusion is horrible. When a group of guys go out, they never invite the women. The reaction is to treat her like shit."

Women can sometimes struggle with experiencing camaraderie within their units because of their gender and the associated exclusion and isolation that can occur. Some participants reported that when female members are friends with their male peers, they can be subjected to rumors within the unit that they are engaging in sexual relationships with male peers. Participants noted that the stigma of any perceived inappropriate relationship with a male member falls on the female. For example, one participant commented on these types of rumors, stating,

> I have known a lot of women who have hung out with guys and just been friends, but that immediately turns into other people saying, "Oh, they're having sex." These women have been separated from duty stations, and they're like, "We're literally just friends. I'm not attracted to this guy."

Another woman described her experiences as follows:

> I just hung out with one of my [male] friends snowboarding and automatically, suddenly, we're dating according to everyone. Suddenly, the spotlight is on you because you're the girl. It makes me angry because I don't like to be isolated.

Participants also mentioned that male members' wives can have negative reactions to their husbands working with female members and discourage them from interacting with women at work. One participant commented,

> I have heard from other females at my unit that there's a major thing with the spouses' clubs. Like being at a bar in public and [a male member's] wife will come up to you and be like, "You're the girl that works with my husband." Wives and girlfriends are jealous about the fact that there's a woman in the workplace.

Female participants also expressed frustration with sexism in the work environment they are often exposed to, again, most notably in more male-dominated communities or in ratings or specialties with a particularly "macho" culture. Many described

feeling like they have to put up with inappropriate comments to be part of the group. One woman stated,

> Some people's deal breaker is the work environment. They just can't handle being in an alpha male environment. . . . I've worked with a command member who was outwardly sexist, and I hated going to work. It wasn't enough to pursue a case with it, but he rode that borderline of comments to me. The person in charge of the unit just lets him talk to people like that.

Another woman similarly described this culture of sexism that exists beneath the surface, even if not overt.

> It's a subconscious kind of sexism. It's not necessarily overt. Especially if I call someone out on it, the men don't realize what they say is demeaning, undermining, or flat-out wrong. You get sick of that sometimes.

In addition to behaviors related to gender bias and discrimination that can influence women's retention decisions, women noted that they did not always have equal access to facilities or equipment. Women stated that female changing rooms or bathrooms are sometimes not available in certain facilities or are extremely limited. One participant described her frustration with this situation at her current unit:

> The infrastructure disparity. I'm a civil engineer, so it's annoying to me. [Where I work] the guys have a changing room off of the head with lockers, and the five women share a coat closet with the water cooler. And, any guests who want to hang up a coat walk right in.

Participants also reported that equipment is sometimes not available in sizes appropriate for women, especially if smaller in size, and can be unsafe—for example, there are cases when a mask is too large and will not seal on a woman's face so she can breathe properly in the water.

Women also noted that the lack or limited supply of female uniforms and other female items available at exchanges on base was frustrating and made them not feel recognized as part of the Coast Guard community. One participant commented,

> I was with another woman, and she said she wanted to hit the gym but had forgotten to bring a bra and underwear. She went to the exchange and had to buy men's boxers because there were no women's undergarments.

The behavioral-related gender bias and discrimination issues that influence women's retention decisions were often more pronounced when a female member was one of the only women in a unit, according to female participants when discussing the impacts of the gender composition of units. Notably, male focus group participants

acknowledged that gender bias and discrimination could be a reason that women choose to leave the Coast Guard, describing work environments that could be unwelcoming and even hostile to female members.

Weight Standards

In over a third of female focus groups, participants raised weight standards as a factor influencing their retention decisions. Participants expressed that weight and body fat standards were not perceived as fair for female members and were especially harsh on women. Participants described situations in which men who appeared much more overweight than women were easily passing weight and body fat standards while women struggled because of the different assessment procedures for measuring body fat. Participants were extremely critical of the "taping" methods used to assess women's body fat if a member's weight went beyond the prescribed body mass index (BMI) target. Taping methods were perceived as not taking women's different body types into account, resulting in standards that are unreasonable and sometimes impossible for some women to meet. Female participants perceived male taping standards to be much more lenient.[7] One participant commented, "Somehow giant necks excuse them [males] for being 300 pounds. And, they tape them under the belly that they grow." Another stated,

> For males, it's neck and waist, and for females, it's your neck, waist, and butt. And, I can never make tape because my ratios are always over. . . . I can't make tape, so I *have* to make weight. I'm so short that it's always within five pounds.

Participants also expressed frustration that women can naturally have a wide range of body types, regardless of weight, and that taping standards disadvantage women with naturally curvier bodies with wider hips that cannot be reduced by diet and exercise. One participant stated, "It's discriminatory towards people of color. The people I usually tape are black and Hispanic. There are different body types."

Some participants also complained that standards did not take into account how women's bodies change after childbirth, often permanently, or that hormonal issues can make a woman's weight fluctuate drastically. For example, one participant commented,

> Also, there are hormonal issues involved. In October, I weighed in at [25 pounds below maximum allowable weight]. I was put on two different birth controls in that time, and I weighed in at [two pounds below maximum allowable weight], just from birth control that the Coast Guard put me on. And, this is after a month

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7   COMDTINST (Commandant Instruction Manual) M1020.8H, *Coast Guard Weight and Body Fat Standards Program Manual*, Washington, D.C.: Department of Homeland Security, April 2016, defines body fat calculations as follows: male circumference value = abdomen – neck (in inches); female circumference value = waist + buttocks – neck (in inches).

of workouts to manage the weight. I'm fighting this battle against hormones. Can I still do my job, can I lift people, can I perform my PTs [physical training]? I can do all those things, but there's this arbitrary number that I have to be below.

Participants described drastic measures that women were taking to meet Coast Guard weight and body fat standards, which they perceived to be a poor measure of body fat and health. One member commented,

Now we have an archaic and not accurate way of measuring body fat, and people are losing their jobs because of it. It's based loosely on BMI [body mass index] and body fat. The way we measure isn't accurate. If you go out on your own and pay for hydrostatic tank measurement . . . they won't take it. So, people are doing cleanses and unhealthy things. The body wraps, sauna, you hear it in chat rooms and on Facebook. And, we're losing women mostly. I never thought it would be a problem with me. Then I had babies and twins.

Participants described very physically fit women not being able to meet standards because of body type and having to engage in unhealthy crash dieting. Some women noted that they would prefer to take a physical fitness test that demonstrated their health and fitness and ability to meet the physical demands of their jobs. Women described the constant stress that the Weight and Body Fat Standards Program brings that wears on them over time and can influence their decisions to leave the Coast Guard. Two participants commented on this issue as follows:

You have men 80 pounds overweight passing and women who are perfectly fit who can't pass because they have big hips and a butt and had kids. And if you have a big neck, you're good. Me, I have a very small neck. I've gone to personal trainers and have a specialized diet and nothing saves me from the weight program. I'm sick of always having to be on a crash diet. I have to go only protein and fruits and vegetables for months before the weigh-in and working out three times a day. I'm just sick of doing that, and it's one of my reasons [for wanting to leave the Coast Guard].

You lose people to that, women especially. You see our social media. Every female struggles at weigh-in . . . stress and struggling and is going to get out. I've watched people leave this service because of constant stress and count how many days until weigh-ins until they get out. Want to know where all the female leadership is? There they go, out of the Coast Guard. The stress, they start to bring it home, and they leave. It's not worth it.

Participants perceived the program to be designed as punitive rather than remedial or helpful, unlike some other issues with which members might be struggling. Thus, it was not viewed as a tool to assist members in making weight. One participant commented,

> If you have a problem with tobacco or alcohol, it's a problem. But the weight issue is a character flaw. We are self-harming when it comes to making weight. You are telling people that they are a shitbag if they don't make weight. I have female coworkers say they want to leave.

Female participants also raised issues with the logistics of the taping process. They described the process as invasive and embarrassing for women. Women have to undress for taping measurements while men do not. Additionally, participants believed that taping should not be conducted by YNs and should instead be done by medical professionals. One participant stated,

> You should not have to pull your pants down in front of a nonmedical professional. [It should] not be a YN thing; it should be medical thing. And, there are so many embarrassing things that take place—executing those standards as a YN—but another female has to pull her pants down in front of you. It's humiliating.

Unlike female participants, male focus group participants did not raise weight standards as a retention factor for men in our discussions. In fact, the few comments made about weight standards in the male focus groups focused on standards being more difficult for females to meet than males. Appendix G further explores the impact of the weight and body standards on female members when compared with males.

Sexual Harassment and Assault

When asked about factors that influence their retention decisions, female focus group participants raised sexual harassment and assault as a work environment factor that could cause women to leave the Coast Guard. Half of all focus groups with female members mentioned this retention factor.

Participants stated that women who experience an incident of sexual harassment or assault in the Coast Guard may leave the service for that reason, and many participants relayed experiences of peers who were victims and have left the Coast Guard. Some participants relayed personal experiences of sexual harassment or assault but had chosen thus far to remain in the Coast Guard. One participant commented, "I've seen a lot of women leave after sexual harassment and sexual assault cases. Whether [it] turns out good or bad, they're done after that."

Participants perceived that incidents of sexual harassment and assault were more pervasive in certain Coast Guard communities. For example, women noted that cultures of sexual harassment can occur on cutters, and many participants described fears of being sexually assaulted while underway. Participants described situations where men on the cutter would openly place bets on who would sleep with the female mem-

bers aboard first. Women also mentioned that port calls while underway, where members frequently drink alcohol, can create situations where sexual assaults can occur. In those situations, participants commented that women typically take the blame for the incident and are said to have caused it. For example, a participant described her fears of sexual assault while underway as follows:

> I love to get underway and need it, but I don't want to go. I'm terrified of what will be done to me. If you get raped on a port call, it's your fault. Men drink a shit ton on those, literally like get arrested for it, but if I get raped it's on me. So, I don't want to go.

They also perceived sexual harassment and assault to be more prevalent in units in which only one or two women are present and in smaller, more remote stations.

Participants commented that the way the command handles sexual harassment and sexual assault has a huge impact on women's experience at a unit. Women reported a lack of confidence in how sexual harassment and sexual assault incidents are handled by leadership. Many participants perceived that perpetrators are often not punished, and incidents are swept under the rug by leadership. A participant commented,

> Women lose trust in command because they don't take action despite numerous complaints and witnesses. They talk to the person, but it doesn't result in paperwork or notification or change. So, people lose faith in commands. And then, they think the Coast Guard will be like that for the rest of their lives.

Participants noted that not having female senior leadership present at a unit or underway can make situations worse. However, women stated that even when the command does believe the victim, the victim can still feel isolated and alienated by the unit. Even if the perpetrators are punished or discharged, victims lose their privacy and often have to move to start over since other members know about the situation. Participants also stated that women who report can get a reputation as a "troublemaker" even at a new unit because your reputation from the last unit follows you. As one woman commented,

> We had a new non-rate report . . . and she was a victim of sexual assault. . . . Before she reported to unit, people were talking about it, and she had a reputation before she got to the unit as being a troublemaker and that [the assault] was her fault. It was disgusting. . . . Just the fact that it was able to happen and that people talked about it before she even reported. It followed her [across the country].

Many women are hesitant to report incidents of sexual harassment or assault because they fear retaliation, negative career impacts, or alienation from the unit. They reported that this fear of speaking up applies to bystanders of incidents as well. Participants noted that women are even less likely to report if there are few or no other

women present at the unit or if the woman is a very junior member. One participant described her experience with unreported sexual harassment as follows:

> Sexual harassment is the reason women get out. I was sexually harassed every day for two years. It was awful. People asked me why I didn't speak up. I was 19. I thought I would lose the respect of my peers. If I report, half the unit would turn against me. . . . It creates a lot of animosity on the ship. . . . I wanted to get along with people. It was hard. It was the things they said right in front of me, and in front of other people who didn't say anything.

When male focus group participants were asked about reasons women may leave the Coast Guard, they also raised sexual harassment and sexual assault as a factor that may influence women's decisions.

Workload and Resource Issues

Workload and resource issues was another work environment factor that female focus group participants identified as influencing retention decisions, with roughly one-quarter of female focus groups raising this issue spontaneously. Participants described consistently being asked to "do more with less" and feeling overworked. Often units are reportedly being undermanned, and the resulting extra work hours can affect members' work-life balance and lead to burnout. One participant commented,

> I think in the Coast Guard . . . we have less of everything, especially people. And, some commands adapt well to that because they know they can't just dump everything on their people, but others don't adapt well, and people get crushed. That's something in the Coast Guard in particular and might make people say "I've had enough."

Some female participants perceived the additional workload burden to fall on female members more than male members and that extra hours worked were not recognized or rewarded. One participant stated,

> Everyone does the job of at least two people, not of just themselves. Especially as females, I feel like you get more work because you're better at paperwork, more organized [as a female].

Beyond personnel shortages, lacking other types of resources reportedly affects members' ability to be effective at their jobs and can hurt job satisfaction and morale. Participants described not having enough office supplies such as paper and printer ink to complete their daily tasks. Participants also commented that limited resources can restrict innovation and technological advances, which may cause members to leave the Coast Guard for employment elsewhere, where resources are more readily available and they feel supported. One woman stated,

> I would say something that's been more and more frustrating as I've been in [the Coast Guard] is the lack of resources available. . . . Funding, oversight, interest in developing tech and programs for the work that I do, it seems almost nonexistent. It's frustrating to be a junior member who has potential concepts about improving those systems, while working in an infrastructure that just can't support that. While I like the mission set that I'm doing, I want to work somewhere that has better resources and support for their people and junior members. And, I don't really feel that in the job that I have right now.

Workload and resource issues also resonated with male focus group participants. Male members similarly expressed frustration with being undermanned with insufficient resources, leading to long hours and feelings of being overworked.

Career Factors

Focus group participants also mentioned several career factors as influencing retention. For female participants, career factors resonated to a lesser degree than work environment factors; however, the reverse was true for male participants. The three career factors that were raised most often for female participants included advancement, assignments, and civilian opportunities. Roughly one-quarter of all female focus groups had someone raise each of these career factors.

Advancement

Some female focus group participants expressed frustration with advancement opportunities. They explained that the promotion process could at times seem like a "black box" and that it was often unclear why one person was promoted and another was not. One female participant commented,

> I got passed over for O-4 even though I'm a rock star on my OER and then they're trying to go through it with a fine-tooth comb to think of reasons why I am passed over. I took those jobs they said weren't glamorous but would guarantee a promotion if I worked it well, but then I got passed over anyway. . . . There's no clear career path.

Enlisted female participants noted that advancement was linked to test results rather than performance in day-to-day jobs. Some complained that members who are naturally better test-takers will advance despite performing worse in their daily jobs than others. Additionally, some found it difficult to find time to study for exams given the demands of their regular jobs. For example, jobs that require time underway can make it difficult to find time to study for exams necessary for advancement, giving an advantage to those ashore. A female enlisted member noted,

> The only way we advance is a test, really, and they put other stuff in there that counts, but the test is a huge part and how you do on it. If you go above and

beyond picking up slack for everyone else . . . so, you don't have time to study, and others, they slack, but then they're good test-takers. I see [people passing people] even though [my qualifications are better.] I think it's a weird problem of the Coast Guard.

Some women also raised the issue of sea time required for advancement as a problem. Female berthing limitations can reduce opportunities for females to get sea time and, in turn, restrict opportunities for advancement. For example, one woman stated,

I have heard so many frustrated women that hear, "Sorry, you can't come on the cutter because we don't have rack space because you can't sleep in a certain rack." Females hear that a lot. And, that sea time can affect the difference in what they want to achieve down the road.

Female focus group participants also raised concerns about evaluations. Some women pointed out that evaluations can involve a great deal of subjectivity, and they did not feel like evaluations were always completed fairly by superiors. Some also described instances of perceived bias against women. One participant commented,

We have this rating for instructor pilots, and you have to get that to get up the ranks. The problem is that not everybody needs to do that. The flight evaluation board, the senior-most men, decide who an instructor pilot should be. According to them, women don't have the right temperament. We aren't assertive enough.

Additionally, some participants expressed frustration regarding how pregnancy affects evaluations. Pregnancies are not indicated on evaluations; however, members must keep to the same evaluation schedule and time line. As a result, they will show fewer accomplishments than their peers because of their time away on parental leave or having had limited duty while pregnant. Women noted that this resulted in less competitive evaluations during these periods, without explanation.

Beyond evaluations, some female focus group participants described experiences with routinely receiving collateral duties that are stereotypical female activities, while their male counterparts received collateral duties that were more likely to support career development or opportunities for promotion. For example, women commented that they frequently are asked to be the morale officer or "party planner" for the unit. One participant noted,

I think women get stereotyped into taking certain collateral duties. For example, a morale officer—give it to the perky female officer. It's a collateral that no one appreciates. Or, a female gets picked for the Christmas party planning. I have been tasked with decorations, and I am the morale officer and have had it for over a year along with other bullshit projects while my male officer counterpart is the public affairs person.

Another woman commented, "I am not the party planner just because I have ovaries."

Finally, some female participants commented that they perceived awards were not distributed fairly and were often more about the "old boys' network" and who you know rather than performance.

Issues related to advancement as a factor influencing retention decisions resonated to a much greater degree with male participants than with female participants. In fact, roughly three-quarters of male focus groups had at least one person raise advancement as a retention factor; by comparison, only about one-quarter of the female focus groups had at least one person raise the issue.

Assignments

Female focus group participants also raised assignments as a career factor that influences retention decisions. Some participants commented that there were certain locations that they would not want to be assigned to and that an assignment to one of those locations could cause them to leave the Coast Guard. One participant stated,

> I would be okay staying in 21, 22, 23 [years], but it depends on what the detailer has in store for me; if they want to move me somewhere I don't want to go, then I'm done.

Often these participants mentioned "bad" locations as being far away from family or being in remote locations that might be particularly difficult for women, especially if not assigned with other women at that location. These types of remote locations can sometimes lead women to feel isolated without a support network. Some participants also noted that it was not just the geographic location of the assignment, but a particular billet that did not interest them that could cause them to leave. One woman noted, "If I just hated the job or it was a dead end or I didn't like the location, [if it is the] perfect storm of me being miserable going to work [I'd get out]."

Several participants also raised concerns regarding the assignment process. Some found the process of working with detailers to be frustrating and unpredictable. Women described experiences of repeatedly not receiving requested assignments and being given assignments that did not align with their career interests, skills, and geographic preferences. Some participants acknowledged that a less desirable assignment was to be tolerated on occasion, but it was the repeated nature of not receiving preferences that women noted would cause them to leave. A participant commented, "I've missed out on my top pick twice in a row. I feel that if I miss another because I'm a female, it's three strikes and you're out."

Women talked about the perception that detailers often help their friends receive sought-after assignments rather than work to provide desired assignments to all members. This exacerbated their frustration with the process and not receiving requested assignments.

Additionally, female berthing restrictions were raised as playing a role in assignments. Women perceived that these restrictions limited assignment opportunities, particularly on smaller boats that would have shorter deployment times. One participant described this issue this way:

> On the underway side of things, it's not really fair because as a woman, we have to go to a ship that—let's just say 210s—and we're stuck on the WMSLs [Maritime Security Cutter, Large] or 378s or something larger. Guys can go to smaller vessels where they're not gone three months at a time. I don't know their schedules, but they can pull in and pull out—whatever. I feel that if women had more opportunities to get on smaller boats, it would be better. I would rather get on a smaller than a bigger boat if there were those options.

Male participants had mixed feedback regarding the degree to which assignments affect men's retention decisions.

Civilian Opportunities

Civilian opportunities outside of the Coast Guard was another career factor that female focus group participants raised as influencing retention decisions. Participants stated that many female Coast Guard members choose to leave the service to pursue careers in the civilian sector. They noted perceptions that pay is often better on the outside and certain elements, such as requirements to go underway, are not an issue in the civilian sector. One participant stated,

> Having my top secret [clearance] and degree—my same job gets paid double on the outside. An E-5 makes close to six figures on the outside, instead of going underway.

Some women also described positive aspects of the civilian sector related to no longer having to work in the male-dominated culture they experience in the Coast Guard. There was a perception that some of the gender-related climate or culture issues would not be an issue on the outside in civilian employment. For example, one woman commented,

> I am thinking of getting out. I have job offers outside, and I have had great experiences and adventures. I would be making more money [on the outside], and now I have to put up with things that I wouldn't deal with in the outside world. I am always the only girl, and they play video games and they go out. And then the wives and girlfriends, [they] don't want to be around me. Those are things that I have to think about because of my gender. In the real world, I didn't struggle as much.

Participants also commented that some women may want to pursue new career fields that are not available in the Coast Guard or have the opportunity to develop their career in a new way. A participant noted,

> A big one [for retention] lately, in the last ten years, [is] women that want to pursue other professions, a career they are unable to do in the Coast Guard—become a lawyer or scientist—things that are difficult to do in the Coast Guard.

Civilian work opportunities resonated much more with male focus group participants than with female participants. Civilian opportunities were raised by at least one person in nearly every male focus group as a reason to leave the Coast Guard, compared with only one-quarter of the female focus groups.

Personal Life Factors

As part of our focus groups, we asked participants how personal matters or family influence women's decisions regarding how long to stay in the Coast Guard. We sought to capture retention factors related to all female members' personal lives, regardless of marital or parental status. For women who were married and/or had children, they indicated that family was a key influencer in their retention decisions, with many considering it "a tipping point" in whether they would decide to leave or stay. Even for many participants who were not married or did not have children, they described family as something they perceived would be important in their future decisions. General comments on the importance of family also focused on women feeling that at some point in their career, they may be forced to choose between their career or their family. In some cases, participants noted that their leadership had even explicitly told them they would need to choose. For example, one participant stated,

> To have an admiral tell a junior officer, "You need to pick a career over what you consider important in your personal life. . . ." I was turned off from the Coast Guard in that exact moment.

More specific themes related to the influence of family on retention decisions included the influence of spouses, children, pregnancy, and breastfeeding support.

Spouses or Partners

We asked all focus groups how spouses or partners may influence decisions regarding staying in or leaving the Coast Guard. We found that across focus groups, women indicated that spouses were a key factor in their retention decisions, although the types of considerations varied based on whether the spouse was civilian or an active-duty service member.[8] Additionally, even for those women who were not currently married,

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[8] Our discussion of spouses included same-sex spouses or partners. We did not hear unique themes related to having a same-sex spouse or partner, however.

many noted that they felt forced to put off marriage because of their Coast Guard career. In our focus groups, 59 percent of women were married, with 50 percent of those being married to another active-duty service member. Although the focus groups were not intended to be a representative sample, current personnel statistics for the entire active-duty Coast Guard population show similar percentages, with 50 percent of women married, and of those who are married, 52 percent are married to another active-duty service member.[9]

Civilian Spouses

For women with civilian spouses, the most common issue we heard across groups was the difficulty and stress associated with frequent moves for the civilian spouse. In particular, many participants noted that it was difficult for their spouse to find employment and build their own career when they had to move frequently. For example, one participant commented,

> We got excited when my husband got a job that was unionized. And, since it's a chain, I was like, "Oh good, you can just transfer." But it turns out he has to quit, move, apply to get rehired at one of the same stores, and if he gets rehired he doesn't lose the time that he already has for retirement, but it's not an actual transfer.

Frequent moves can be even more difficult for occupations that require special licensing or certification for each state. Additionally, some participants noted that with certain remote Coast Guard locations, there may not be job prospects that aligned with the spouse's career. For example, one participant commented, "His job is outdoor tourism, so if we moved to Cleveland or somewhere, that would be stressful and miserable." Another individual described a similar situation, saying,

> My husband has had to give up his career twice now—and can't find a job in Alaska that can work with his hours when I am deployed because he needs to pick up kids, and it's terrible.

Participants also noted that because of societal gender norms, they perceived it was harder for male spouses to not have a career and follow their female spouses around the country, whereas a woman following a man is more accepted. Reflecting this sentiment, one participant stated, "Society thinks a man has a certain role as a breadwinner, and I think it's very difficult for him even though he won't say so." Similarly, another participant commented,

> It's hard as a woman to find a man who is willing to follow you in your career, and I've had friends who've had to choose between their career in the military or the man they love, because they either can't find jobs when moving that quickly

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[9]   Based on Coast Guard personnel files from October 2017.

or can't accept the woman's power. . . . So, many have to choose between having a career or having a family.

Women also discussed the stress this situation can put on their marriage as a result, with some participants noting it can lead to divorce. Said one woman, "I got divorced two years ago because of the resentment of having to pick up and move from a career they loved."

Related to these difficulties, some participants expressed frustration that their needs to accommodate their spouse's career were not taken into consideration during the assignment process. As a result, some women live separately from their spouses so that the spouse can also maintain a career.

In addition, some participants discussed a perceived lack of support for male spouses within the Coast Guard community. For example, spouse associations are mostly female, and participants noted that male spouses often did not feel as welcome: "There's a spouse association where they're supposed to help . . . my husband, nobody's reached out. . . . So, he's had to do that all on his own." Similarly, another participant noted, that there is "not a lot of support for the husband or dad either. Like that's not a community." Thus, participants commented that even when their spouses are able to move with them, they often experience a lack of support and feel left out of the broader Coast Guard community.

We heard many similar themes regarding the role of spouses on retention decisions from male focus group participants. For example, men also discussed the strain put on marriages when they need to work long hours or are away from home and underway. They also commented on the difficulties of managing two successful careers if their spouse worked, noting that it was more manageable when the spouse had a more mobile career, such as nursing or teaching. In contrast, however, male participants in our focus groups who had stay-at-home spouses or spouses with more mobile careers did not cite spouses as contributing as much to retention decisions.

Active-Duty Spouses

As noted previously, roughly 52 percent of women in the active-duty Coast Guard who are married are married to another active-duty service member. This is in contrast to married Coast Guard men, of whom only 7 percent are married to another active-duty service member. The majority of marriages between active-duty service members are to another Coast Guard member (90 percent for women and 94 percent for men). Thus, issues related to being part of a dual active-duty couple are particularly important for women in the Coast Guard.

Overall, we heard comments that being married to another service member, particularly another Coast Guard member, can be positive, given that the spouse understands what it is like to be in the Coast Guard and what is required of the job. However, participants also discussed the significant strains that occur when being married to another military member.

Although the Coast Guard reports that it is able to accommodate a high percentage of colocation requests, one of the most frequently discussed issues we heard was the stress caused when spouses are not able to receive colocated assignments and have to be a "geo-bachelor." Participants noted that in some cases they were told they were being colocated, but they were still very far from each other and had to commute significant distances if they wanted to live together. Furthermore, participants noted that colocation is focused on location and not the length of the tour, so they may not even be in the same location very long.[10] For example, one participant noted,

> [M]y husband and I have been married for ten years, and we've never transferred together, OCONUS [outside the continental United States] moves, mainland moves, and we've been in different states and considered "colocated" and ten months later one [of us] is submitting their resume and the other is not.

Participants also noted that although they may be able to make things work for a period of time, frequent stretches without colocation become very difficult. Many participants stated that if they had another assignment in which they were not colocated, that would be the last straw and one of them would get out. Participants commented that the difficulties of not being colocated were even more significant if they had children. One parent was forced to function as a single parent for a period of time, and it was difficult on the children to not have both parents together. A lack of colocation often led to some women delaying having children as well.

Deployments and demanding work requirements also emerged as an important issue with member-to-member marriages, given that spouses may go a significant period of time without seeing each other. Similar to issues of colocation, deployments can add further complications when there are children if both spouses are expected to deploy at the same time.

Finally, participants commented on the difficulties of managing two successful careers within the Coast Guard. If spouses want to be colocated, it usually means that one of them has to take the back seat in their career so the other can get the qualifications and experiences needed to be successful. Describing this experience, one participant stated,

> My husband and I joke, one of my first supervisors asked us "Which one of you will be the chum? Sacrificial lamb? Both can't have good careers, and have you had that discussion yet?" And, no, we haven't, and we are member-to-member. So, we will joke, "I've got chum job this time, and he says no, I am!"

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[10] In July 2018, after we completed our focus groups, the Coast Guard amended the current assignment policy to "align tour lengths of active duty members married to other active duty members in paygrades E1–E6 and O1–O4 who wish to be collocated" (USCG, 2018).

Certain occupations can also be more difficult to coordinate when children are involved. For example, one spouse may be underway and another has to stand watch, which makes child care challenging.

We heard similar themes in our male focus groups from men married to another service member. They also discussed the difficulties of managing two successful Coast Guard careers and the extra stress it can create when children are involved. Some men also commented that if one spouse was going to get out, it was often the woman.

Children

As part of our focus groups, we asked participants how children influence women's decisions regarding staying in or leaving the Coast Guard. Across the focus groups, children were viewed as a key influencer and the number-one influencer for many women. Our male focus group participants also perceived that children were the primary influence on female retention. Most of the comments regarding the influence of children on retention decisions were made by mothers, but many women who did not have children also raised concerns about having children in the future while in the Coast Guard.

One of the key issues women discussed was the impact that deployments and work requirements (e.g., standing watch) have on children. In particular, women worried about needing to go underway and being gone from their children for an extended period of time. This was particularly a worry for women who had recently had a baby or had small children. They discussed not wanting to miss key events in their children's lives and expressed concern about the toll it would take on their children when they were not around. Describing the impact this situation has on her decision to stay or leave, one participant commented,

> My son was one when I left, three when I was back. I was the XO [executive officer], out for months. One time my son said, "I don't remember you." Now that I'm here, I see myself staying. If I had to go afloat again, I would absolutely leave. Retirement benefits are not enough.

This matter was further complicated for women who were single parents or married to another Coast Guard member. Single parents described the difficulties of not having a partner to help watch their children when they might need to stand watch, or especially if they were going underway. For member-to-member families, they worried about competing schedules that required both parents to be gone. In some cases, participants described needing to send their children to live with grandparents or other family members. Describing this type of challenge, one participant commented,

> In August, I go to third shift. I'll work 8 p.m. to 2 a.m. We have four kids, and my husband is going on a cutter—two months in, two months out. So, I'm going to have to figure out who can watch my kids at that time.

Related to this, women also described the general difficulties of balancing their careers with the demands of having children, such as needing to take time to be with a sick child. They described feeling that these duties often fell more to women than men. And again, women in the Coast Guard are less likely to have a stay-at-home spouse to help, compared with men in the Coast Guard. In some cases, they described having supportive leadership that allowed them to have better work-family balance. In other cases, leadership was not supportive, which created a negative climate. The phrase "Your kid doesn't come in your sea bag" was often discussed as reflective of the unsupportive climate many members felt existed.

Participants also discussed the impact of frequent transfers on children. Although some participants felt their children were resilient and able to adapt to transfers, many described it being a stressor for their children and creating frustration, especially when they got into high school and wanted to maintain friendships. Again, having to move frequently was more complicated for women who were married to another Coast Guard member because of the risks of not being colocated. For example, one participant commented,

> We're member-to-member. If our family got split up, and we were sent to opposite ends of the country, and one of us was juggling kids and the other was in God knows where—I'm not doing that. My family is going to trump that every time.

Finally, one of the recurrent themes related to the discussion of children was the difficulty of finding available, quality child care. This issue was raised spontaneously in almost half of our focus groups. Participants described child care as a particularly important issue for women in the Coast Guard since they are less likely to have a spouse who is a stay-at-home parent compared with male Coast Guard members. Given the nature of Coast Guard work, which may require long hours or the duty of standing watch overnight, for example, participants described needing child care that could take their kids at the last minute, for extended periods of time, and sometimes overnight.

Focus group participants described having limited access to Child Care Development Centers (CDCs) because assignment locations are spread across the United States and there is not always a large enough presence of Coast Guard members to warrant a CDC. Furthermore, in some of the more remote Coast Guard locations, participants described experiences of having access to only one or two day-care facilities in the area, so individuals may have to drive long distances to find care. Additionally, participants said the child care subsidy that is available to them was insufficient to cover or even significantly help alleviate their child care costs.[11] Especially for Coast Guard members who are enlisted and in member-to-member marriages or who live in higher cost locations, they discussed feeling like they were "paying to go to work."

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[11] After we completed our focus groups in the summer of 2018, the subsidy was increased for high-cost locations (e.g., Washington, D.C.).

Some individuals described wanting to get out because it was not financially feasible for both parents to stay in with child care costs. As an example, one participant stated,

> Here it's $4,700 per month for two kids. I'm not getting a raise here, and the subsidy is a complete joke. We get $120 a month. That does not cover the increased costs, at all. They give you $120 a month for child care here. That's insane.

Participants also said it was difficult to get information on what child care was available or the processes for obtaining help.

Many of these same themes regarding children were raised in our male focus groups as well. In particular, men discussed the challenges of not being there to help co-parent when they had to work long hours or were underway. They also discussed needing to be a geo-bachelor so their kids could have more stability, especially as they got older and into high school. Similar to women, a big issue raised in our male focus groups was the challenges of finding affordable and quality child care when they had a spouse who also worked. Although we heard many similar themes regarding the role of children on retention decisions, male participants also noted that they did not have to give birth, and many viewed their female spouse as being responsible for child care. Therefore, in contrast to our female participants, for some men, children were not viewed as affecting their retention decisions. Men also commented that they heard similar sentiments from some leadership, who expected the female spouse to be taking care of children and were not understanding when men also needed to attend to family needs.

Pregnancy

Related to the influence of children on retention decisions, participants also discussed wanting to become pregnant and have a family as an important influence on their decision to stay in or leave the Coast Guard. In particular, participants expressed frustration that they felt they had to time pregnancies or delay starting a family in order to maintain their Coast Guard career. They appreciated the increased parental leave to 12 weeks and commented that it was a good policy change. However, for many specialties and ratings, individuals have to achieve certain qualifications, and opportunities to gain those can be affected by pregnancy and then parental leave.[12] This potential for pregnancy to have a negative impact on women's careers was raised spontaneously in over one quarter of our focus groups. For example, if you work with chemicals, are on a cutter, or are a pilot, you are no longer allowed to do your normal job while pregnant. Therefore, participants described needing to carefully time when they got pregnant so it did not derail their careers. Commenting on this, one participant noted,

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[12] The Coast Guard's parental leave policy covers both maternity convalescent leave following the birth of a child and caregiver leave for a primary and secondary caregiver. See Mieszala, 2018.

> They said if you go afloat and you get pregnant you are done in the Coast Guard. She said you have to pick a time, and these are five to ten years you have, and you can't do it in grad school because that is really hard and you need to get qualified, and so from [age] 22 I was told that you have this gap and if you have a kid outside this gap, you probably won't stay in the Coast Guard very long.

Furthermore, as discussed earlier in this chapter, OERs and EERs are not allowed to indicate that someone was out for pregnancy-related issues or parental leave. As a result, many women described having sparse or noncompetitive performance reviews compared with their peers, which can make it hard to get promoted. Describing this situation, one participant stated,

> So, I had three months in my job before I gave birth. I then had zero, nothing to put on my OER from being gone three months, and the type of work I'm doing now takes nine months to get products out, so I have nothing for my OER except collaterals. Recovering from that is impossible.

Similarly, another participant commented,

> I'm in prevention, and when you get pregnant you can't do inspections. So, on my OER . . . well what'd you do during this time period? It's like, I was working, working all my hours and more, but got passed over because I didn't have inspections; fine, but what's not okay is they don't say the reason you were gone is maternity leave. So that's another effect . . . just looks on paper in the Coast Guard like you don't do your job. Men don't have that problem.

Another participant described a similar experience by a peer as follows:

> I know someone who was at an air station, and she got pregnant; it was written in her OER that she lost her aircraft commander designation. Basically, she didn't get promoted anymore. Basically, it just said "not aircraft commander." When boards see that, well, it was like what happened? It was just because she didn't fly, got pregnant, and was on maternity leave. She did not get promoted because that was in her OER. There was no mechanism to tell the panel, "Hey, this is why."

Although this was not this individual's firsthand experience, it further illustrates the extent to which these issues are known and are concerns for women even thinking about having a family.

Women in our focus groups also described feeling like there was a stigma associated with being pregnant since you were no longer allowed to do certain tasks and would then be out on parental leave following the arrival of a child. Again, this topic was not something we specifically probed about, but the subject came up in over a quarter of our focus groups. Specifically, participants described others perceiving them

as useless or being frustrated because they were going to have to fill in while they were out on parental leave. For example, one participant commented,

> I was talking to a friend—who said, "Our office is better without females because men can't get pregnant," and he's a normal guy other than the fact that he thinks women are a burden and he makes them feel ostracized.

Participants also described perceptions by other Coast Guard members that women would get pregnant just to get out of duties or having to go underway. For example, one participant described being told by her executive officer, "This is the most irresponsible . . . you intentionally got pregnant to get off this cutter." Other participants described similar experiences with leadership not being supportive of their pregnancies and how it influences their retention decisions. As one participant commented,

> So, there's animosity toward women who get pregnant because they assume you're doing it to get away from your unit. There's a lot of animosity over creating a child. I was told by someone that I should wait until I retire to have kids so I don't mess up my unit. Not much support from the command and crew climate.

Although these were not themes brought up within our male focus groups, men did comment that they were aware that for women these were issues that influence retention.

Breastfeeding Support

When discussing pregnancy and the influence of children on their retention decisions, participants also raised concerns regarding a lack of breastfeeding support following their parental leave. This was raised organically in just over 20 percent of our female focus groups. Participants commented that although at many locations there were more private rooms to pump breast milk than there used to be, a private space was still not always available. For example, women described experiences of having to pump milk in a closet or a bathroom. Furthermore, some participants described feeling little support from their commanders when trying to take the necessary breaks to pump milk, or even being explicitly told they were taking too much time. Describing her experience, one participant stated, "I lost my milk supply and had to pump in the bathroom and no sanitation, and my supervisor limited when I could pump—told me only twice a day." These issues were also often exacerbated in certain specialties, such as pilots who are expected to be in the air for many hours or individuals standing watch overnight. For example, one participant commented,

> I'm a nursing mom, and I had to stand duty at the base. I was getting mastitis three times because I was having to pump through the night, but it wasn't doing its job. Command didn't care. . . . They could have worked with me a little more to reduce my duty so I could finish nursing. I had to stop nursing because of that. I

don't know how they can do it if they're on a cutter. I think it plays into why people get out because I can't do what I want to do as a mom and be in the Coast Guard.

Women on cutters who wished to continue providing breast milk to their babies described facing similar challenges regarding pumping but also had the extra difficulty of needing to ship frozen breast milk back home. These challenges led many women to not being able to breastfeed for as long as they would have liked.

Additional Personal Life Factors

In addition to the above themes, female participants, particularly those who were not married or did not have children, raised several other topics related to their personal lives, but these issues were discussed with less frequency across groups (raised in less than 15 percent of our female focus groups). For example, participants discussed concerns over having aging parents and not being available to support them because of the locations of their assignments and deployments. Participants also discussed the general challenges of developing friends and not having a strong support network because of frequent transfers. Finally, we also heard comments from single women about the difficulties of dating when you have to move frequently or may be underway for extended periods of time. In fact, many of the same spouse issues raised by married women were mentioned as issues for women who are in relationships but are not married. Men in our focus groups also raised the issue of taking care of elderly parents and the challenges of dating as additional personal life considerations that influenced their retention decisions.

Reasons to Stay

In addition to identifying factors that may influence why members might leave their Coast Guard careers, focus group participants also described reasons that they have stayed or would encourage them to continue to stay in the Coast Guard. Female focus group participants mentioned benefits most often, followed by the mission and work. People in the Coast Guard and job security were two factors women also raised, although less frequently.

Female participants raised benefits as the top factor that keeps them in their Coast Guard careers. In terms of types of benefits, women mentioned health care, followed by retirement, and finally educational benefits. Participants described Coast Guard health care benefits as allowing them to not worry about medical bills, provide health care for their family, and help them to feel financially secure. One participant commented,

I wouldn't be in [the Coast Guard] anymore if I hadn't had kids . . . but once you have kids, you need stability, and I need the paycheck and health insurance and stability for my kids. So, I'm not leaving—you'll have to pry me away [from the Coast Guard].

Participants commented that retirement benefits also provided stability for their families and were a reason to remain in the Coast Guard until reaching 20 years. Though raised less often than health care or retirement, educational benefits for members themselves and for their children were mentioned as a reason to stay in the Coast Guard. Benefits were a key reason to stay in the Coast Guard for male focus group participants as well; however, female focus groups raised this factor slightly more often than male focus groups. Like female participants, males cited retirement and health care benefits most often, followed by educational benefits.

In addition to benefits, female focus group participants cited the mission and work as a key factor influencing their decisions to stay in the Coast Guard. Women described the Coast Guard mission as rewarding and fulfilling and something to which they are proud to contribute. Participants enjoy helping their communities and the humanitarian nature of the job. Women also commented that they enjoyed the day-to-day activities of their jobs and found job satisfaction from the Coast Guard. One woman stated,

> There's nothing that would make me get out at this point. I love being underway. I love being on the ship, being a department head, taking care of my people. I love what I'm doing right now.

The Coast Guard mission and work also resonated with male focus group participants. In fact, male focus groups raised this factor more often than female focus groups as the reason they have or will stay in the Coast Guard. While an important factor for both genders, this suggests that the Coast Guard mission and work is more of a driver for men than women in their decisions to stay in their careers.

Female focus group participants noted the people in the Coast Guard and the sense of community and camaraderie as another factor that kept them in their careers. They described enjoying the support from other Coast Guard members, who felt like extended family. Notably, as described earlier when discussing female participants' experiences with gender bias and discrimination, women also mentioned struggling to establish camaraderie in a unit due to their gender. The people in the Coast Guard and related camaraderie also resonated with male focus group participants as a reason to remain in the Coast Guard.

Women also mentioned job security as a factor that influences their decisions to stay in the Coast Guard. They noted having a regular paycheck provides financial security, and some participants commented this provided stability for their children or financial independence. Male focus group participants raised job security more often than women in our focus groups, noting that they stayed to provide for their families and not risk an unknown employment market on the outside.

Finally, although it was not one of the most frequently mentioned factors, notably some female focus group participants commented that the reason they wanted to stay in the Coast Guard was to be female role models for junior women. They would like

to help increase the number of female leaders and help change the climate to be more positive for other women coming after them. One participant stated,

> Stubbornness is keeping me in. . . . We need more female leadership, and seeing the lack of female leadership, in my head [I think], "I would do this differently." I want to be there, be the voice, challenge my male counterparts—and that's what keeps me going.

Coast Guard Programs

As part of our focus groups, we asked participants about specific Coast Guard programs and benefits and how they may influence decisions to stay or leave the Coast Guard. The discussions centered around three programs or benefits: (1) the TEMPSEP program, (2) educational opportunities and benefits, and (3) the BRS, which became available as an opt-in program for most members in the focus groups in early 2018. Overall, participants discussed appreciating all three programs/benefits. However, participants also discussed various changes they desired for TEMPSEP, and many felt the new BRS will negatively affect retention rates.

Temporary Separation

When we asked female participants about TEMPSEP, the majority knew about the program, but some indicated that they were not aware of the program, and others stated it is not clearly advertised by the Coast Guard. A recent study on retaining women in the Coast Guard also found enlisted members were less familiar with the program than officers (Ladyga et al., 2017). Some participants also felt that there is not a good understanding of the program benefits and the effect that TEMPSEP has on other policies, including years counted toward earning the Post-9/11 GI Bill. For example, one woman stated, "A sabbatical is the same as TEMPSEP? I don't know much about it. Need to know more. Don't you have to apply for it —and it's not guaranteed?" Another commented,

> Well, they could be better at promoting that program maybe. You hear about TEMPSEP, and hear about the option to come back, but [I'm] not sure that people take that and come back. But, they could promote that program more. To me it seems like not a good career choice.

Overall, many participants indicated that the program can be useful for service members and there are some success stories. Women also voiced concerns about negative effects in the way it is currently promoted and managed, however. For example, some participants described perceptions that certain critical ratings were not allowed to take TEMPSEP, although no restrictions exist in current policy. Participants also described perceptions that the amount of paperwork involved is abundant and not easy to do and that it was unclear as to the best timing for taking the program without it

affecting one's career. Focus group participants described perceptions that reentry from TEMPSEP is not necessarily easy and that returning members can receive undesirable assignments. Participants also commented that the return rate may be lower than the Coast Guard prefers, and they have seen that members' promotion potential can be affected. For example, one woman noted,

> [I have a] friend that did that program, and they never reach back out to TEMPSEP people; they dismiss them—they are not worth reaching out to. And, my friend is [a] rock star, and they are missing out on fully trained enthusiastic people [with a] wider breadth of experience to bring back to the Coast Guard.

Although many of the perceptions we heard do not align with the formal TEMPSEP policy, these perceptions exist and are influencing attitudes toward the program.

Some participants did indicate that they found TEMPSEP useful for personal needs such as having children or taking advantage of an educational opportunity, but many noted that the consequences of taking it are high. Regarding the positive aspects of TEMPSEP, one woman noted,

> [I] think it's great. Multiple people go through it but I haven't seen anyone come back in yet. And, you can take a break and go to school or do your own thing and then come back to the military.

Overall, female participants reported that they are glad the TEMPSEP program exists, some simply because it provides a potential avenue to return to the Coast Guard should they desire rather than having to make a decision to separate fully from the Coast Guard. Participants commented that both men and women have used it. However, participants reported that many members do not return after TEMPSEP, and perceived that this is due in part to the program's policies. Women commented that to incentivize more people to take advantage of the program, there should be changes in requirements, such as who can use the program and when. Male participants were also aware of the program, and mentioned similar reasons to female participants regarding potential issues with the current TEMPSEP program. Given the lack of knowledge of the program by some members, and the lack of confidence that members can return from the program without negative consequences to their careers, it does appear that the program could be better communicated to all members.

Educational Benefits

For female participants, most were aware of the educational benefits available to them. However, newer members did not all understand the details, such as the maximum per year for tuition assistance (TA). Many see the TA program as a good benefit but say the monetary value is low, especially compared with the DoD's TA program, and should be increased. They also noted that it is more difficult to take advantage of this benefit

if you are always afloat because of connectivity issues and time available for classwork. One participant commented, "I think for operational billets, you have to have someone in the unit who's willing to stand up for you. I wasn't even able to complete the class on the boat." There was a mix of those who thought educational opportunities increased retention and those who thought some members join the Coast Guard to use educational benefits and then leave; no one felt this affected women differently than men. Many also valued the ability to pass the GI Bill on to their children and planned to stay in so they could do so. For example, one woman noted,

> To get grad school, that will play into something that would make me stay. Got me to come in the first place, free college, so might as well stay a few extra years for grad school. I do think that's something that keeps people in.

Another noted, "[I] already have two degrees and don't need to worry about it. I love that I can give [the] GI Bill to my daughter, and that will keep me in."

There were no major differences in responses from male focus groups.

Blended Retirement System

Most participants in female focus groups were aware of BRS. Some had made a choice to opt-in to BRS, while others, particularly those with more years of service, chose to remain in the legacy retirement system. Some participants thought BRS was a good financial option, while others disagreed; some more junior members were less familiar with the financial details of their retirement options though. Whether they opted into the new system or not, many participants felt that BRS will negatively affect retention by incentivizing members to leave earlier in their careers than they have in the past. Many female participants did feel the program allows more flexibility in their careers and a choice to stay or leave with guaranteed money in hand before 20 years if they desire. Some felt that opting into BRS may be protection against getting no retirement if they were separated from the Coast Guard for a reason beyond their control before hitting the 20-year mark, which many respondents had seen happen to other members. Some also noted that if members begin leaving earlier, it will be interesting to see the impact it has on leadership and skill levels in the Coast Guard workforce. As one woman noted,

> I want to stay to 20 years or longer. However, I think adding blended retirement . . . we are already having problems keeping people in the Coast Guard. We aren't competitive in terms of pay for pilots, financial managers, physician's assistants, and other specialties. I think a big draw to a lot of people is the security of a retirement for forever. What I think is going to happen is a lot of people will stay in for 10 to 15 years and then bounce. So, we won't have the expertise and experience. What good is a 15-year master chief if you need to manage 20 to 30 18- to 25-year-olds with priorities that are different because they have different life choices than you? You need a senior enlisted person with experience to rely on to help manage

those enlisted members. I think you'll end up having a lot of frustration because you'll get poor decisions, and it will come back on who is in charge—us.

Male focus group participants responded similarly to women regarding feedback on BRS and any impacts on retention.

Summary

Our analysis of the focus group data found that women chose ratings and specialties with interests or long-term goals in mind, but a number still made career decisions that did not consider these factors, which could have retention implications down the line. Senior leadership is a goal for some, but not for others because of perceived institutional barriers. Participants also indicated that career feedback is not always useful, or consistent, but there is a desire for feedback of some kind.

We also identified retention factors in the following three categories: (1) work environment factors, (2) career factors, and (3) personal life factors. Work environment factors raised most often as influencing retention decisions included leadership, experience of gender bias or discrimination, weight standards, sexual harassment and assault, and workload and resource issues. Focus group participants also mentioned several career factors as influencing retention, including the potential for advancement, assignments, and civilian opportunities. Specific themes related to the influence of personal life on retention decisions included the influence of spouses, children, pregnancy, breastfeeding support, and other personal life issues that particularly affect unmarried women without children (e.g., difficulties dating and developing friendships). Participants also identified key reasons to stay, such as benefits and commitment to the mission and work. Finally, participants discussed the influence of TEMPSEP, educational opportunities and benefits, and BRS on their retention decisions. Overall, participants discussed appreciating all three programs/benefits. However, they also described various changes they desired for TEMPSEP, and many felt BRS could negatively affect retention rates.

When asked about their number-one retention factor or "deal breaker," responses typically focused on various personal life issues, although leadership was one work environment factor that also stood out for women. This was similar for both men and women; even though men tended to discuss the influence of civilian job opportunities and lack of advancement opportunities more than women, the most frequently mentioned factor that would be a deal breaker for them tended to be issues related to their spouse. Many participants also voiced that they did not have a single "deal breaker," but rather it was a combination of factors that influenced their decisions.

Quantitative Findings on Gender Differences in Retention

While the focus group participants painted a rich and nuanced picture of the gender dynamics underlying member decisions to stay on active duty or leave the Coast Guard, policymakers also require complementary information quantifying the gender gaps and identifying associated characteristics. This chapter presents results from an analysis of recent Coast Guard data describing gender differences in continuation/retention patterns. We then identify characteristics that potentially contribute to the differences and explore the impact of these differences on the long-run composition of the workforce.

Constructing the Analytic Data File

We fused information from many sources of data so that we could link retention behavior to demographics and other contextual information about Coast Guard members (Figure 4.1). First, we drew on monthly snapshots of the active-duty force contained in all of the available personnel data files maintained by the Coast Guard Office of Strategic Workforce Planning and Human Resources Analytics (CG-126). CG-126 maintains several databases for different force management purposes, including demographic information for each individual, records on accomplishments (e.g., qualifications and test scores), dependent records, and information specific to units (e.g., geographic locations). The personnel data also included some limited information from the Weight and Body Fat Standards Program, which we explored in an analysis that is summarized in Appendix G. In addition to the personnel records, the Coast Guard also provided data on cutter movements in fiscal year (FY) 2005 and later, from which it is possible to determine on a given day whether or not a cutter is away from home port. By linking individuals to units, and units to cutters, we constructed each individual's history of personnel tempo, measured by the number of days away from home port (DAFHP) during the period observed in the data. Finally, members are linked to geographic locations in two ways—through their home of record and through the Operating Facility (OPFAC) to which they are assigned. Because some of our hypotheses posited that location attributes might influence retention, we used information

Figure 4.1
Available Data Sources Used to Construct the Analytic Data File
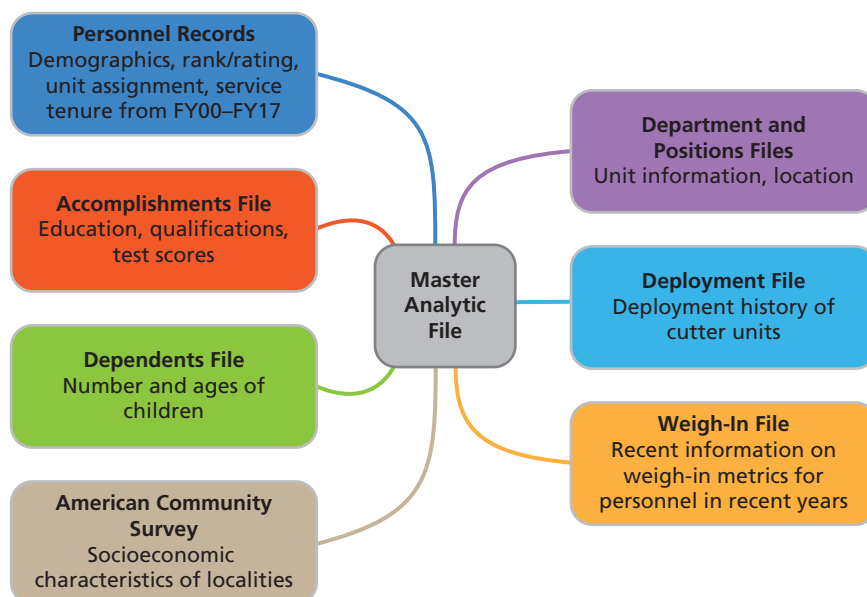
NOTE: Because of database migrations, some key information was only available from FY05 onward. In addition, the cutter movements were only available starting in FY05. The last personnel snapshot was for FY17, meaning that annual retention outcomes could only be observed through FY16. Thus, most analyses focused on the personnel present on active duty from FY05 through FY16, and only those who entered active duty in FY05 or later had complete histories of cutter DAFHP.

from the Census Bureau's American Community Survey (U.S. Census Bureau, 2016) and matched it to individuals using the zip codes in the personnel data files.[1]

Results of Quantitative Analysis

Meaningful Gender Retention Gaps Emerge Among Early-Career Personnel

The most general indicator of potential gender differences in retention is whether the gender composition of each cohort becomes more male over time. Figure 4.2 examines

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[1]   Each year, the American Community Survey samples about 1 percent of the population, so it is beneficial to pool multiple years of data to increase precision when estimating characteristics by locality. We drew on statistics from the five-year pooled data covering 2012 through 2016. Zip codes are not available in the American Community Survey, so we used information calculated for census tracts (the lowest level of granularity) for home of record characteristics, and Public Use Microdata Areas (PUMAs) for the areas surrounding OPFAC locations. Since zip codes can span multiple census tracts or PUMAs, we constructed weighted averages using population levels in the 2010 census as weights (see Missouri Census Data Center, *MABLE/Geocorr14: Geographic Correspondence Engine*, web application, rev. September 10, 2016 with Census 2010 and later geography).

Figure 4.2
Female Representation at Entry and in Most Recent Snapshot, by Cohort

All Enlisted Personnel

All Commissioned Officers
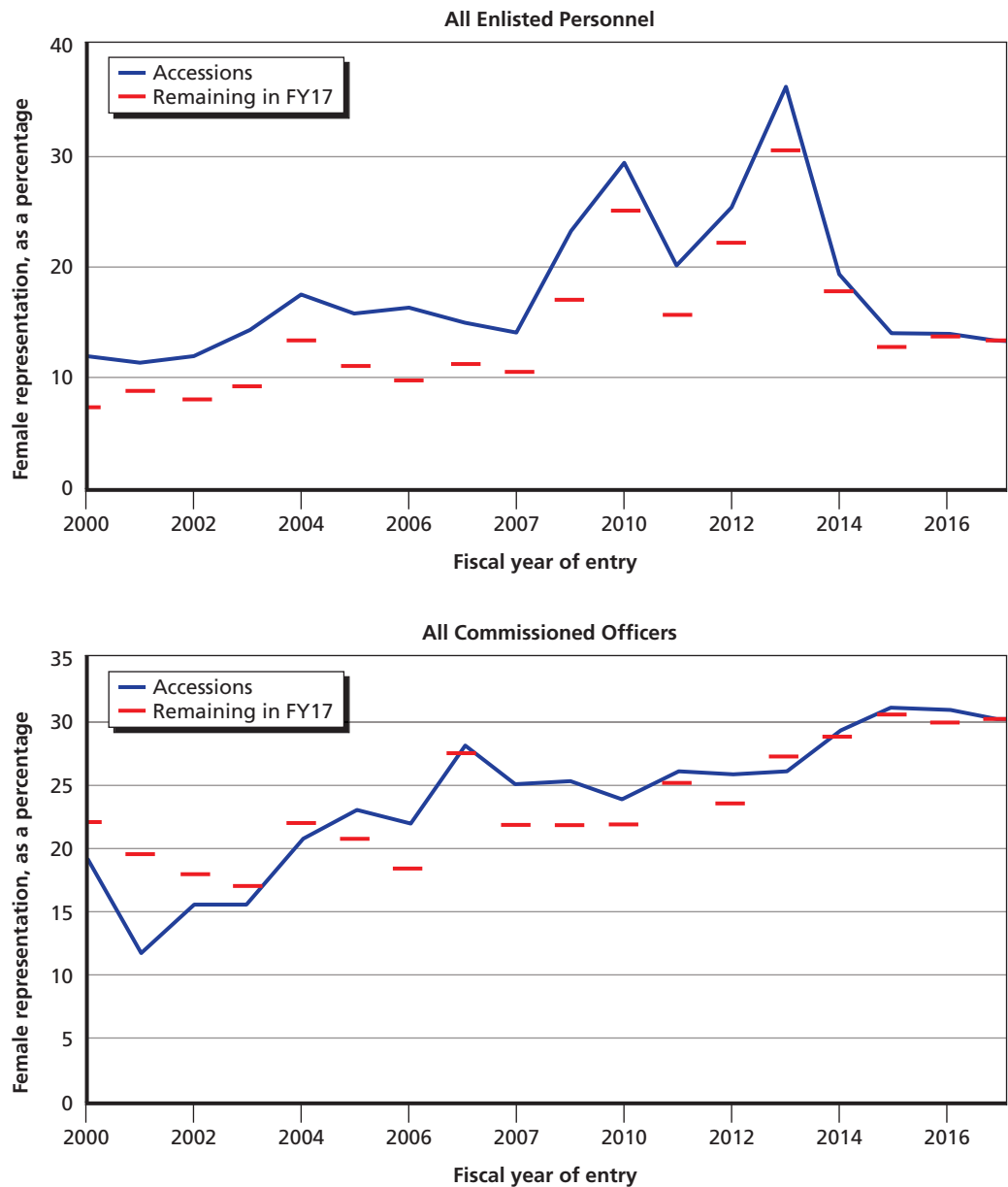
this indicator by comparing the percentage of each cohort that is female (also known as "representation") at the time of accession to the percentage that is female at the end of the most recent fiscal year available (i.e., FY17). If an entry cohort's representation percentage in FY17 is less than at the time of accession, this indicates that the percentage of women has fallen over time because women in the cohort have been retained at

lower rates than men. In the top portion of Figure 4.2, female representation among new enlistees (shown in the figure as the solid blue line) has historically hovered around 15 percent, with an irregular period of increased levels from FY09 through FY14, where representation peaked at over 35 percent. Comparing the percentage representation at the time of entry to the FY17 percentage representation (shown as red dashes) reveals that for the FY15 cohorts and earlier, female representation has decreased over time.

Shown in the bottom portion of Figure 4.2, female representation among new officers has steadily increased since FY01 (black line), growing from 11.5 percent to 30 percent in FY17. The comparison of FY17 representation to representation at the time of entry is more mixed for officers. Representation percentages in FY17 among officers who entered in FY13 and later are very similar to the percentages at accession. Gaps emerge for cohorts who entered in FY05/FY06, FY08–FY10, and FY12, suggesting that retention differences begin to emerge after five YOS, which aligns with the typical initial commitment for officers. Very early cohorts (FY00–FY02) appear to have higher representation in FY17 than at the time of accession, which could reflect something distinct about those cohorts or an issue with the earliest waves of data.

Tracking cohorts over the limited time frame in the data indicates that women have lower early-career retention than men. However, with only 17 years of personnel data (12 of which have complete information on key characteristics such as cutter movements), it is not possible to follow one cohort of personnel through the length of an entire career. To construct a full retention profile throughout the career life cycle, then, requires combining the early-career retention behavior of younger members with the late-career behavior of older members (Appendix E discusses this method further). This picture, shown in Figures 1.1 and 1.2 of Chapter One in the form of CCRs, presents the reality that there is a similar pattern for both tiers of personnel (officer and enlisted/warrant officer) where cumulative retention gaps emerge in the first ten years and then stabilize afterward. A key difference between enlisted personnel and officers is that enlisted personnel show substantial losses in the early-career years of zero to four YOS, which partly stems from training attrition,[2] and female retention is lower than male retention in this range. By contrast, there is little officer attrition prior to five YOS and no gender difference in this range. Stark officer differences emerge starting in the fifth YOS and grow rapidly through the tenth YOS before stabilizing thereafter.

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[2]   Retention in recruit basic training is closely monitored by the Coast Guard and is not of primary interest to this study. Therefore, we exclude enlisted members who appear to leave because of attrition in basic training from our analyses seeking to explain retention gaps. We include all members in the summary statistics and workforce modeling so that these calculations accurately describe the workforce trends.

Accounting for Differences in Other Characteristics Could Enhance Our Understanding of Gender Retention Gaps

A persistent obstacle to understanding gender retention gaps is that men and women differ in many respects other than gender, and these other factors could worsen (or alternatively, mask) the gender retention difference that is of policy interest. Characteristics strongly associated with retention that are more prevalent among men than women could provide a clue to explain the mechanism behind the gender gap. Alternatively, if women are more likely to possess some retention-enhancing characteristics and yet still have relatively low retention, then the true gender gap could be larger even than what was suggested in Figures 1.1 and 1.2.

Table 4.1 shows statistics on the prevalence of key characteristics and their relationship with retention, by gender. We examine three groups of characteristics that earlier research and qualitative information suggest could be important to gender retention differences—family-related characteristics, occupations, and indicators of membership in the afloat community versus the ashore community. These calculations use annual snapshots of the active-duty force from FY05 through FY16, measuring prevalence as a percentage of person-year records possessing the characteristic. Furthermore, Table 4.1 shows whether the characteristics are associated with higher versus lower retention by calculating the average length of service (in years) for only members possessing the characteristic (see Appendix E for further detail on this calculation).

There are clear differences between men and women in family-related descriptors. The most common family status for Coast Guard active-duty women is to be unmarried without children, and women were 16.1 percentage points more likely than men to be in this category. The most common category for men, on the other hand, is to be married with one or more children, and there is an 18.1-percentage-point gap between the genders in this category.[3] These substantial gender differences in family status align with the narrative that emerged from the focus groups, which indicated that women with families face particular challenges and may perceive a need to choose between family and career. A higher tendency of women to be single could result if women delay family plans for career reasons, or if women leave at disproportionate rates before getting married or having children in view of the challenges ahead.[4]

According to the average length of service calculations, personnel with children tend to have higher retention than those without children. For men, being married is associated with slightly higher retention (with or without children), while married women without children had slightly lower retention than their unmarried counter-

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[3]   Though Table 4.1 focuses on the presence of any children, there were also gender differences in the number of children that service members have, especially at the senior ranks. For example, at the end of FY17, 15 percent of male junior officers (O-3 and below) had two or more children compared with 6 percent of female junior officers, but among senior officers, 78 percent of men had two or more children compared with 47 percent of women.

[4]   It is also possible that women who join the Coast Guard are systematically less likely than men to prefer marriage and children, but this idea did not turn up in the focus groups discussions.

Table 4.1
Prevalence of Select Characteristics and Average Length of Service in Years
(Category with Highest Level of Female Retention Shown in Bold)

	Percentage of Total		Average Length of Service	
	Female	Male	Female	Male
Family-related				
Unmarried (no children)	49.3	33.2	8.7	9.4
Married (no children)	22.4	22.7	8.0	10.1
Unmarried (one or more children)	6.1	4.0	12.3	15.5
Married (one or more children)	22.2	40.1	12.8	17.3
Occupation				
Engineering rating (enlisted only)	14.2	40.8	10.4	12.8
Operations rating (enlisted only)	27.1	32.1	9.6	12.5
Service/Support rating (enlisted only)	47.1	17.0	11.1	12.5
Nonpilot (officer only)	95.2	84.5	13.2	15.5
Pilot (officer only)	4.8	15.5	19.8	20.9
Ashore versus afloat				
Not assigned to cutter	85.0	77.5	8.9	11.2
Assigned to cutter	15.0	22.5	11.2	12.6
Did not deploy in previous year	80.2	71.0	8.8	10.9
Deployed in previous year	19.8	29.0	11.5	13.3

NOTE: Calculations are based on pooled end-of-FY snapshots from FY05 to FY16. Average length of service is based on CCRs using all person-year records with a given characteristic, with YOS top-coded at 25 (as there tend to be few personnel in each individual YOS value above that level). We defined rating categories for enlisted members as the first rating each person entered after their initial term as a non-rate and excluded those who never progressed beyond non-rate status.

parts. All else being equal, the higher tendency for men to have children (44.1 percent for men versus 28.3 percent for women), coupled with the higher retention tendency among members with children, suggests that a portion of the gender differences in retention is likely to be family-related. If the gender differences in family status are the result of challenges that the Coast Guard could mitigate with increased support to women, as suggested by the focus group participants, the patterns in the table suggest that such measures could improve overall female retention.

There are also meaningful differences in the occupation-related variables for both enlisted personnel and officers. A plurality of enlisted women works in service/support ratings, followed by operations ratings and engineering ratings, while prevalence among

enlisted men follows the reverse order. Retention levels differ slightly between rating categories for women, with the highest retention in service/support ratings and the lowest retention in operations ratings. Men, on the other hand, have almost the exact same average retention levels in each of the three rating categories. For officer occupations, men have more than triple the likelihood of being pilots compared with women, and pilots have substantially higher retention (likely in part because of longer service commitments associated with flight training). These differences suggest that a portion of the gender retention gaps could also be related to occupation choices.

The patterns work in much the same way with the indicators of members who are in the ashore versus afloat community. Men are more likely than women to be afloat, with 22.5 percent assigned to cutters and 29 percent participating in a cutter deployment in the previous year, versus 15 percent and 19.8 percent of women, respectively. Furthermore, those in the afloat sector consistently had higher retention than the ashore sector for both men and women. Thus, men have a greater level of attachment to the afloat sector, and this could relate to the aggregate retention differences between the genders. This relation could either be causal, where greater opportunities to work afloat improve retention among men relative to women, or the relationship could be the result of underlying preferences that differ along gender lines and are also correlated with retention.[5]

In total, the descriptive analysis demonstrates that there are meaningful gender differences in retention, and that most differences play out in the first ten years of Coast Guard member's careers. In other words, if future cohorts' late-career retention patterns are similar to previous cohorts in the data, policy changes addressing the drivers of these early-career retention gaps could produce retention patterns among women that are more similar to those of men. However, there are other differences between men and women in their most common family statuses and occupational contexts, as well as ties to the afloat community, that could affect the size of these retention gaps. The following section performs what is known as a "decomposition" analysis to parse out the influence of gender differences in these and other characteristics.

Analysis of Retention at Early-Career Milestones Reveals That Characteristics "Explain" Some but Not All of the Gender Gaps in Retention

To determine the most effective policy response for reducing gender gaps in retention, policymakers need to know how much of the gap represents the influence of each characteristic and how much remains after all characteristics are taken into account. At an intuitive level, the decomposition analysis we present below answers this question by taking the relationship between each characteristic and retention in the whole population and using it to calculate *how much female retention would change* if the women

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[5]   It is important to note that, unlike decisions regarding family, occupations and assignments are more directly determined by policy choices (though individual preferences play a role in these factors as well).

had the same average level of the characteristic as their male counterparts.[6] That is, if women reflected the same degree of retention-enhancing characteristics as men (e.g., because the Coast Guard alleviates barriers to the greatest extent possible), we can calculate the expected gains in the retention of women within the Coast Guard. We will refer to any portion of the gap that is removed by accounting for characteristics as the "explained" component and the remaining portion for which characteristics cannot account as the "unexplained" component.[7] Furthermore, it is possible to show the explained component separately for individual characteristics or groups of characteristics, which will help to summarize the portion of the gap that is related to gender differences in family status versus occupations, for example. Appendix E provides further details on the decomposition technique, with citations to other recent works using the technique for the interested reader.

Given the result in the previous section that gender differences in retention are most prominent among early-career personnel, the following results apply this method to personnel beginning their careers in FY05 or later as they pass through a series of early-career milestones, shown in Figure 4.3. The results account for some military contextual characteristics (such as rating and grade), family-related characteristics, measures of cutter deployments, locality characteristics associated with individual homes of record and most-recent assignments, and other individual background characteristics (see Appendix E for more detail on the variables included and how we defined the outcomes).

Our analysis reveals that average differences in the quantitative factors (such as those in Table 4.1; see Appendix F for a full list of included factors) contribute to gender differences in retention, but they do not explain the *majority* of the retention differences at most of the milestones that we examined. Figure 4.4 depicts this result by showing the gender difference in retention for each milestone, broken out by the portion that is explained by differences in the characteristics and the unexplained portion. Figure 4.4 can be interpreted as follows. If there were no gender differences in retention, the height of the bars would be zero. The blue sections of the bars represent the portion of the retention gaps that is amenable to policy changes that alter the contextual characteristics of women. The red sections of the bars represent the gap that would remain between identically situated groups of men and women. For enlisted

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[6]   To take a simple hypothetical example, suppose that there is a 5-percentage-point male-female difference in having children, and that members with children had a 10-percentage-point higher retention rate than members without children. This implies that the portion of the overall retention gap that is attributable to differences in child bearing is one-half of a percentage point (0.05 multiplied by 0.10).

[7]   Alternatively, other researchers refer to these components as the part attributable to differences in observables versus differences in associations. They use the term "associations" because any part that is not attributable to average differences in the characteristics must be attributable to differences in the relationships between the characteristics and the outcome (see Beth J. Asch, Trey Miller, and Gabriel Weinberger, "Can We Explain Gender Differences in Officer Career Progression?" Santa Monica, Calif.: RAND Corporation, RR-1288-OSD, 2016). Appendix E has more information on the decomposition method.

Figure 4.3
Definitions of Early-Career Retention Milestones
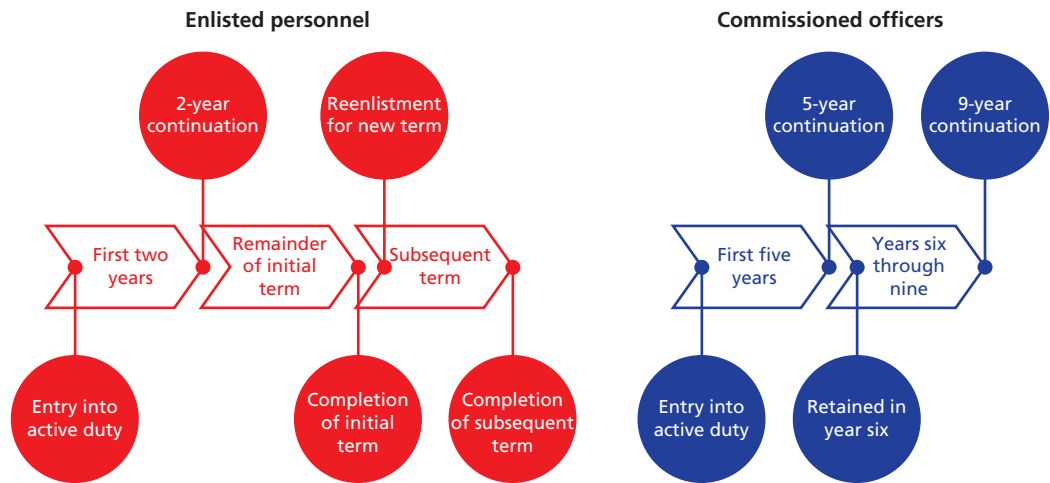
NOTE: Some enlisted personnel transition to become warrant officers during these career phases, and we considered these personnel retained for as long as they remained on active duty. Those who commissioned were excluded from the enlisted analysis and included only in the officer analysis.

Figure 4.4
Gender Differences in Retention, with Aggregate Decomposition Results
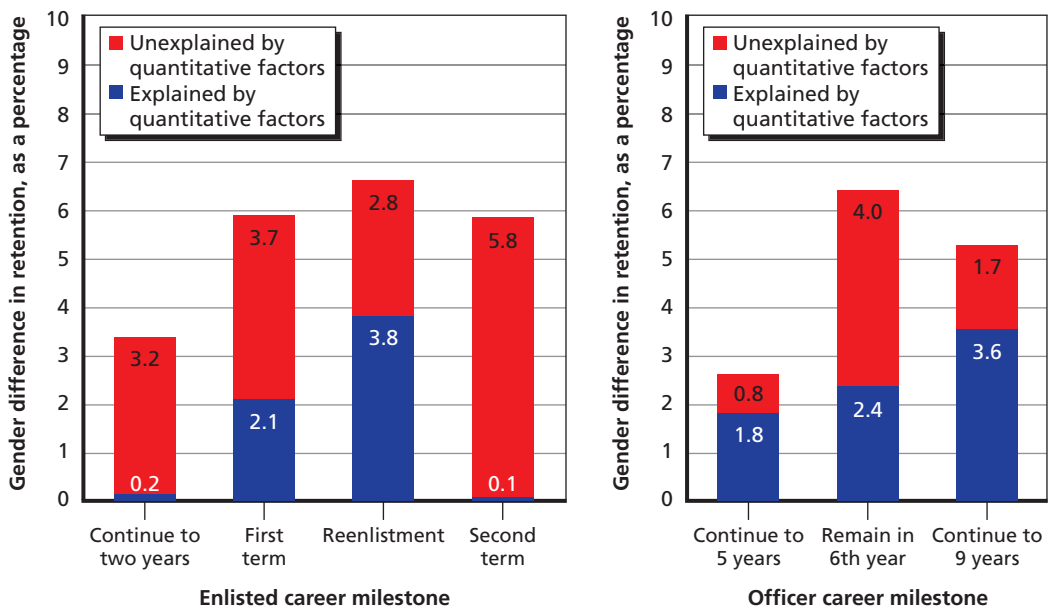
members, only the reenlistment milestone showed a majority of the gender difference in retention being attributable to quantitative factors. This result indicates that gender

differences in characteristics, such as those in Table 4.1, are insufficient to account for the full gender retention gaps in most cases. *In other words, the associations between the quantitative factors and retention predict that there would still be significant differences in early-career retention between identically situated groups of enlisted men and women.*

Officers present a different picture, as a majority of the gender differences for the five- and nine-year continuation outcomes are attributable to differences in the quantitative factors (and the total unexplained portion of the gap is statistically insignificant at these milestones). Still, the retention outcome of remaining in year six (after the first true decision point for many officers) shows a majority of the gap unexplained.

In the following sections, we provide more insight into the factors that drive gender differences in retention, for example, the "explainable" components of Figure 4.4.

Family-Related Characteristics, Military Contextual Factors, and Cutter Deployments Are Significant Contributors to the Gender Differences in Retention

To illustrate which variables are the most important contributors to gender differences in retention, Figure 4.5 shows the explained portion (shown in blue in Figure 4.4) further broken down into select classes of characteristics that are of substantive interest— cutter deployments, family-related characteristics, and career field characteristics. To

Figure 4.5
Contributors to the Portion of Gender Differences in Retention That Is Explained by Quantitative Factors
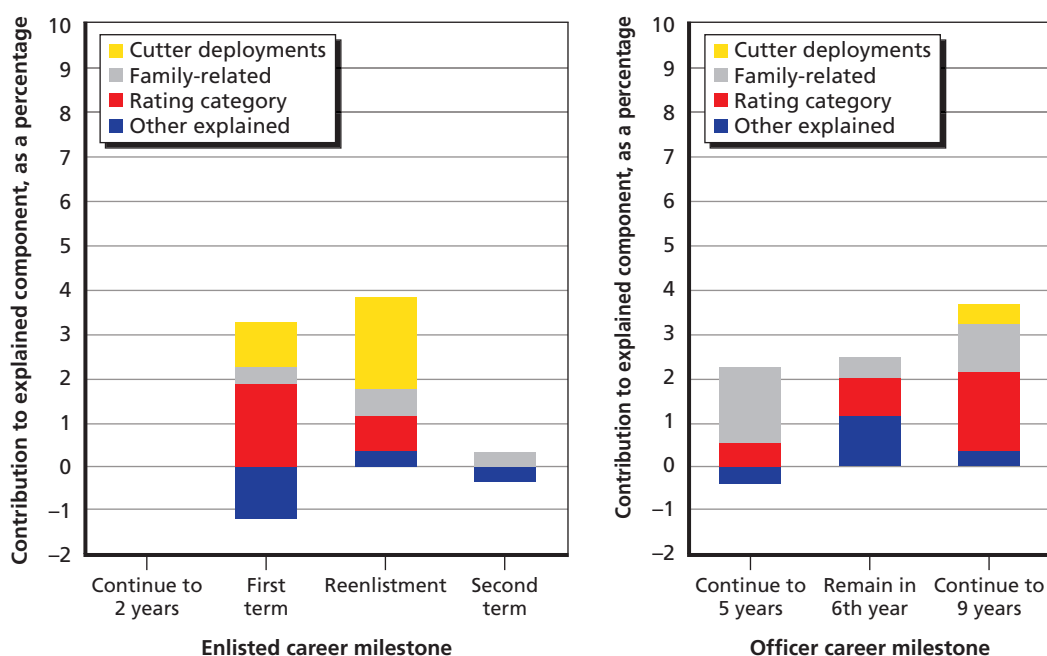
NOTE: The contributors are omitted from the chart if they are not statistically significant at the 5 percent significance level.

simplify the graphic, other controls (many of which are statistically insignificant as individual contributors) are grouped together in the bar labeled "Other Explained." Positive values in Figure 4.5 indicate cases where differences in the factors contribute to gender differences (i.e., are disadvantageous to women), whereas negative values indicate cases where the particular characteristics of women have a mitigating influence on the gap.[8] These contributions are not predictions, in that they do not indicate how much policies addressing the gender differences in family decisions or occupations (for example) will reduce future retention gaps. However, given the current state of knowledge, it is most sensible for policymakers to focus efforts on areas that appear strongly related to the gaps, while also being informed by the richer detail presented in the qualitative portion.

Family-related variables consistently contribute to the explained component of the gender differences in retention, though in many cases their impact is not as large as other factors for enlisted personnel. Gender differences in military contextual characteristics—rating for enlisted members and pilot qualifications for officers—also contribute to the explained component in certain cases. Differences in cutter deployments emerge as contributors to the explained component for enlisted members on the outcomes of first-term completion and reenlistment. The complete results can be found in Appendix F, but we offer here some further detail on the mechanisms behind these contributions.

As the descriptive analysis suggested, the most common way that family-related characteristics enter the explained portion of the decomposition is through the positive correlation between having children and retention, and the fact that women are less likely than men in the Coast Guard to have children. Asch, Miller, and Weinberger (2016) find a very similar pattern in the DoD, and they note that it could result from either a dynamic where women leave the Coast Guard to bear children or from the fact that members with children could have greater incentives to remain in the Coast Guard because of the associated health benefits (or some combination of the two). The Coast Guard members who participated in our focus groups suggested that both dynamics are potentially viable explanations for this result.

The military contextual characteristics that have the greatest magnitude in contributing to the explained portion of the first-term continuation gender gap are enlisted ratings. Enlisted members who did not progress beyond non-rate status were less likely to complete their first terms compared with members who were in engineering, operations, and service/support ratings. The first group (enlisted) was disproportionately female while the engineering, operations, and service/support group was disproportionately male. This pattern could reflect something unique about members who remain non-rates for longer periods of time (it could be an indicator of slower career

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[8]   Characteristics can mitigate the gap in cases where women are more likely than men to possess characteristics that are positively related to retention (or less likely to possess negatively related characteristics).

progression, for instance). Alternatively, it could be the result of reverse causality, where being a non-rate does not make one more likely to leave early, but rather leaving early makes one more likely to be last observed as a non-rate.[9] For officers, the male-female difference in the propensity to be pilots consistently contributed to the explained portion of the gap. In particular, the calculation attributes 1.8 percentage points of the gap between the sixth and ninth year of service to gender differences in the propensity to be pilots. This mechanism is straightforward—pilots have substantially higher retention than nonpilots (some of which is the result of service commitments), and men are disproportionately likely to be pilots.

For enlisted members, gender differences in cutter deployments were significant and meaningful contributors to the gender gaps. The contribution of cutter deployments results from two underlying forces. First, cutter deployments (measured in DAFHP) are positively correlated with continuation[10] and reenlistment, and enlisted women tended to spend fewer days deployed than men, on average. Second, deployment time spent on the major medium-endurance vessels (210s and 270s) and other cutters was more strongly correlated with continuation and reenlistment than time spent on the high-endurance cutters (378s and National Security Cutters, or NSCs). *Women who had some deployment time on cutters were much more likely than men to serve on the high-endurance cutters*, which also contributed to the gap (at the reenlistment milestone, women actually had a higher average DAFHP for high-endurance cutters than men). Focus group discussions provided insight as to a potential underlying reason for this pattern, suggesting that women have historically had fewer opportunities to serve on smaller cutters. Still, it is important for the reader to bear in mind that the positive relationship between DAFHP and retention could also result if members who prefer to remain in the Coast Guard disproportionately seek out deployment opportunities. If this were the case, creating more opportunities for women to serve aboard cutters might not increase the continuation or reenlistment rates for women.[11]

We also looked for quantitative support for barriers to retention that arose in the focus groups. Focus group data suggested that *local area characteristics* could play a role in gender retention differences, in that assignments to more remote areas might have unique burdens on women. For evidence of this, we looked for, but did not find, a positive correlation between female retention and local population density or female labor force participation (our proxy measure for available support to working women)

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[9]   We included rating and years of service to attempt to account for this problem. The contribution of the non-rate category remained despite the controls for the number of years each enlisted member had served when they were last observed prior to the milestone.

[10]   For continuation, the relationship is U-shaped, where it decreases at first and then increases for higher values of DAFHP. The relationship between cutter-time could also face the same reverse-causality problem as the contribution of rating, if the reason some members have less time aboard cutters is because they left before the completion of their terms.

[11]   There could be other benefits apart from a direct retention impact, such as increasing perceptions of equity.

at each member's most recent assignment.[12] Then, to examine the hypothesis that the *frequency of moving* places a unique burden on women, we explored including the number of unique OPFACs linked to each member at the relevant milestone as a proxy for how often the member had moved. A convincing result would have been a negative correlation for women of greater magnitude than for men. Yet the number of moves was positively correlated with retention for both enlisted men and women, calling into question whether the variable is a valid measure of the burden of relocation.[13] Because of this uncertainty, we ultimately excluded this variable from the results that we present in the report.

Gender Retention Differences Reduce Female Representation in the Workforce, Particularly in the Leadership Ranks

Compared with the theoretical goal of retention parity, relatively low retention for women reduces the level of female representation in the workforce as a whole. Because all leaders are promoted from within, however, relatively low retention for women also reduces the supply of potential female leaders. We explore these two impacts in this section, using a basic workforce projection model. The model projects the workforce forward by subtracting losses, promoting a portion of personnel in each grade category to the next tier, and adding in new accessions (which we set to exactly equal losses each year so that the total workforce size would remain constant over time). To capture the impact of relatively low female retention, we compare the long-run workforce makeup in a baseline scenario with historical loss rates (calculated by gender and YOS for officers and enlisted/warrant officers) to a scenario where female members leave at the same rates as the male members.[14] Because we incorporated grade transitions into the model, we can examine the impacts in the leadership tiers in addition to the total workforce impacts.

Figure 4.6 compares the level of female representation in FY17 to the long-run level of representation[15] under historical loss rates, as well as the level of representation when gender differences in retention are removed. The left panel shows results for the entire active-duty force while the right panel shows results for senior levels, defined as

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[12] The lack of a finding here does not falsify the hypothesis; however, it could easily be attributable to the crudeness of our measures or the limited sample size of women at some decision points.

[13] This finding could also result from the fact that some locations contain multiple OPFACs, so members can switch OPFACs without moving. Despite these limitations, the weaker correlation for women relative to men contributed to the unexplained component in the way that would be expected if the hypotheses of a differential moving burden were true.

[14] The workforce model is capable of examining scenarios that vary any of the parameters that determine the makeup of the workforce, including accession patterns and promotion rates. Decisionmakers could use these techniques to project the possible impact of combinations of accession and retention targets, for example.

[15] In the model, the long-run level of representation is the level of the workforce after 100 years of annual transitions. At this point, the level has reached a steady-state and is no longer changing significantly from year to year.

Figure 4.6
Long-Run Female Representation Under Historical Retention Versus Equalized Retention
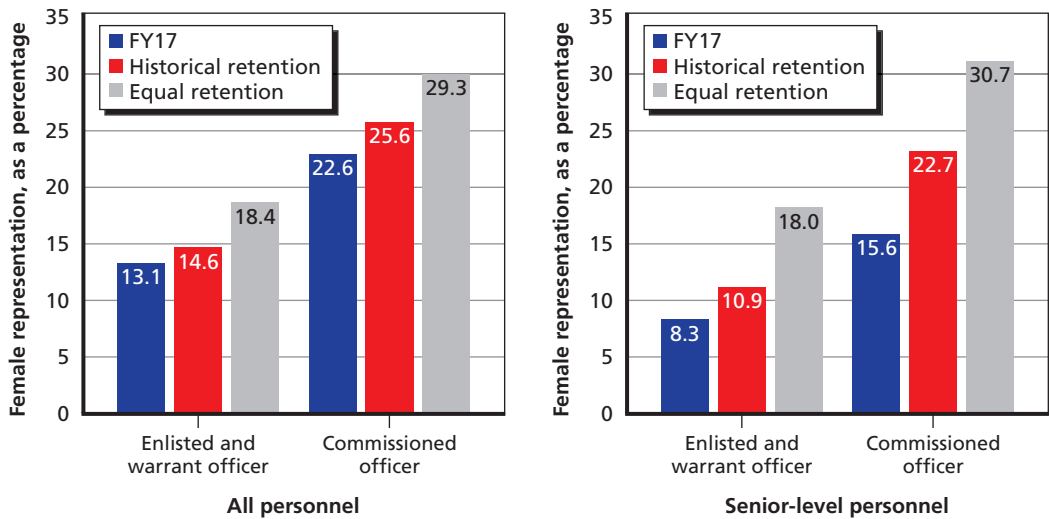
NOTE: Senior-level personnel include grades E-7 and above, all warrant officers, and grades O-5 and above. The long-run level of representation refers to the steady-state level of representation in the workforce after 100 model-years.

grades E-7 and above for enlisted (while also including warrant officers) and grades O-5 and above for commissioned officers.

Comparing the FY17 level to the long-run equilibrium under historical retention reveals that the model projections show increasing female representation over time. This occurs because the increasing level of female representation among accessions in recent years (see Figure 4.2) causes the inflow of female personnel to be higher than the annual losses for the first few years.[16] The gap between the level of representation under historical retention and the level under equalized retention illustrates the impact of the gender retention differences. Female representation in the active-duty force (left panel of Figure 4.6) is over 3 percentage points lower with existing retention patterns than with the hypothetical case where retention differences are erased. The magnitude of the difference is even more substantial when considering the senior-levels in isolation (right panel). Comparing the equalized retention scenario to the historical retention scenario shows a 7-percentage-point increase in representation for the enlisted/warrant officer tier and an 8-point increase for commissioned officers. In relative terms, this difference equates to increases of 64 percent and 35 percent, respectively.

Table 4.2 further unpacks the workforce differences resulting from the gender retention gaps by showing the change in female personnel by grade category, as a total number and as a percentage of the baseline result. For example, the first three

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[16] In this particular formulation, losses are a percentage of the personnel, so as the inventory grows, the losses increase as well until the inventory reaches an equilibrium where the annual gains roughly equal annual losses.

Table 4.2
Change in Female Active-Duty Personnel Resulting from Equalized Retention, by Grade Category

	Change in the Number of Female Personnel[a]	Change as a Percentage of Historical Retention Result[b]
Enlisted		
Non-rate	8	0.7
Junior enlisted	794	26.5
Senior enlisted	374	68.3
Warrant officer	115	78.7
Commissioned officer		
Junior officer[c]	−17	−3.3
Mid-grade officer	153	16.9
Senior officer	102	43.1
All personnel	1,529	23.1

[a] The change in the number of female personnel is the total number in the equalized retention scenario minus the number in the historical retention scenario at the 100-year-point.

[b] The change as a percentage is the change in number divided by the total number of female personnel at the 100-year-point in each grade category under historical retention.

[c] The decrease in the number of junior officers results from the fact that the model decreases accessions in response to higher female retention, which reduces the number of female junior officers relative to the historical retention scenario.

rows in the table indicate that removing the gender retention differences resulted in a steady-state workforce with an additional 8 female non-rated personnel, 794 female junior enlisted personnel, and 374 female senior enlisted personnel, relative to the baseline scenario with historical retention patterns. These numbers equate to percentage increases of 0.7, 26.5, and 68.3 percent, respectively. Furthermore, the retention change, coupled with historical transitions from enlisted to warrant officer, produced an increase of 115 female warrant officers (a 78.7-percent increase). Finally, 102 additional female senior officers resulted from removing the gender retention differences, an increase of 43.1 percent.

    Gender differences in retention are caused by many factors, and no single policy is likely to completely erase the gap as shown in the equalized retention scenario. Instead, another use of our workforce model is for decisionmakers to assess the potential impacts of different alternatives. To illustrate this use, we created two additional scenarios: an "operations scenario" that removes the gender differences in recent cutter deployments (for enlisted/warrant officers) and pilot qualifications (for commissioned

officers), and a "family scenario" that removes the gender differences in family statuses. In each scenario, we removed gender differences in the operational or family-related characteristics by placing additional importance on women with key features before calculating the loss rates that went into the model (see Appendix E for more details on the procedures used to create these scenarios). Each scenario is meant to represent the potential impact on retention if policies could alter the operational experiences of women or their family decisions. Figure 4.7 and Table 4.3 summarize the projected improvements in terms of female representation and the female active-duty population, respectively.

The results of the additional retention scenarios show slight improvements in representation, with the largest relative increases accruing to the senior enlisted, warrant officer, and senior officer populations. However, these improvements are only marginal compared with the equalized retention scenario because changing any one factor only slightly improves female retention in the presence of other explained and unexplained factors. In sum, changes in these areas could contribute to incremental change, but fully eliminating gender gaps in retention likely requires a more complete understanding of the other factors involved in the causal process that generates the gaps and/or addressing multiple factors simultaneously.

Figure 4.7
Long-Run Female Representation Under Historical Retention Versus Selected Retention Scenarios
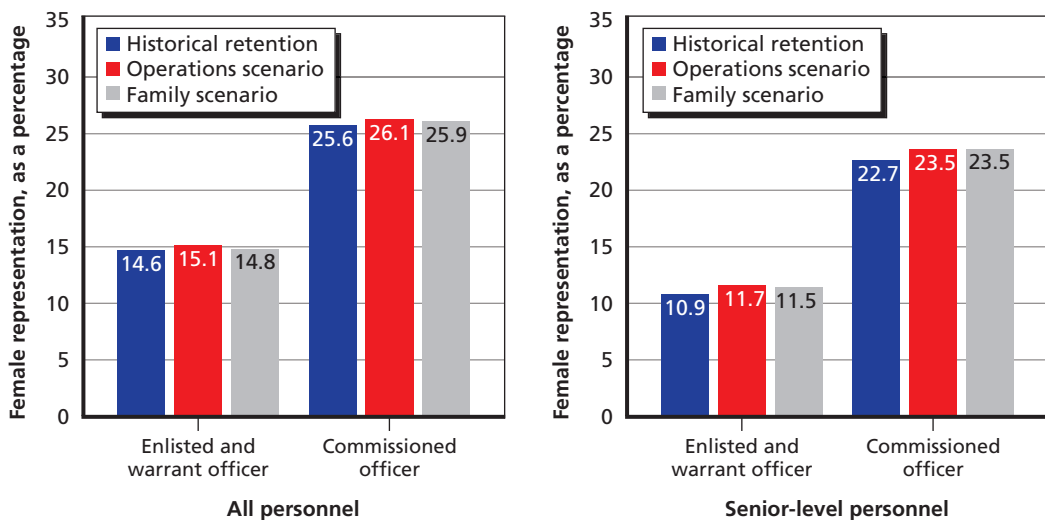
NOTE: Senior-level personnel include grades E-7 and above, all warrant officers, and grades O-5 and above. The long-run level of representation refers to the steady-state level of representation in the workforce after 100 model-years.

Table 4.3
Change in Female Active-Duty Personnel Resulting from Selected Retention Scenarios, by Grade Category

	Operations Scenario		Family Scenario	
	Change in Number of Female Personnel[a]	Change as a Percentage of Historical Retention Result[b]	Change in Number of Female Personnel[a]	Change as a Percentage of Historical Retention Result[b]
Enlisted				
Non-rate	4	0.3	−1	0.0
Junior enlisted	109	3.6	44	1.5
Senior enlisted	41	7.4	30	5.5
Warrant officer	12	8.3	10	6.7
Commissioned officer				
Junior officer	−3	−0.5	−2	−0.4
Mid-grade officer	26	2.9	11	1.2
Senior officer	9	3.9	9	3.9
All personnel	199	3.0	102	1.5

[a] The change in the number of female personnel is the total number in each retention scenario minus the number in the historical retention scenario at the 100-year-point.

[b] The change as a percentage is the change in number divided by the total number of female personnel at the 100-year-point in each grade category under historical retention.

Summary

The analytic file combining 12 recent years of personnel data with histories of cutter deployments and data from other sources shows that there are meaningful gender differences in retention in both the enlisted and officer active-duty forces. Most retention differences occur in the first ten years of service, after which male and female continuation rates appear more similar. Further analyses show that some underlying differences in the characteristics of women versus men appear to contribute to these differences, in that portions of the gap could be related to differences in family status, occupations, and deployment tempo. The analysis was limited by the data available, as well as by the ability to quantify some of the retention factors identified in the focus groups and the complexity of the decisionmaking process. Often, however, the majority of gaps are not easily attributable to such factors. Finally, the workforce projection model shows that the gender differences in retention could substantially limit female representation in the long run, especially among the senior levels of the active-duty force.

Recommendations

For this study, we used a mixed-methods approach involving both qualitative and quantitative analyses to explore barriers to female retention. We identified retention factors for female members in three key areas: (1) work environment factors, (2) career factors, and (3) personal life factors. Specific work environment factors identified as most often influencing retention decisions included leadership, experience of gender bias or discrimination, weight standards, sexual harassment and assault, and workload and resource issues. Focus group participants also mentioned several career factors as influencing retention, including potential for advancement, assignments, and civilian opportunities. Specific themes related to the influence of personal life on retention decisions included the influence of spouses, children, pregnancy, breastfeeding support, and other personal life issues that particularly affect unmarried women without children (e.g., difficulties dating and developing friendships). Our quantitative analysis further explored these retention factors and identified some underlying differences between male and female member characteristics, such as family status, occupations, and deployment tempo, that contribute to retention differences; much of the gap remains unexplained by these characteristics, however.

This chapter presents our recommendations aimed to improve female retention in the Coast Guard as well as a proposed framework for implementation. We developed our recommendations based on the key retention factors identified in our focus groups as well as findings from our quantitative analyses. We also considered policy changes focus group participants raised that they believed would help address some of their concerns. It is important to note that we do not offer recommendations to address every factor identified in our findings individually; rather, we provide recommendations that address the most prominent themes and that are intended to have broad-reaching effects that should touch on all key retention areas identified. Furthermore, our analyses found that there is no "silver bullet" solution to address the gender gap in retention. Instead, multiple factors influence final retention decisions. Our recommendations acknowledge this, and we propose a series of initiatives that together may help address barriers to retention for women in the Coast Guard. Additionally, our recommendations and related initiatives are intended to address concerns from all female members, regardless of marital and parental status, to the extent possible.

Overall, we offer three overarching recommendation areas for the Coast Guard to consider:

- Update Coast Guard personnel management systems to better meet the needs of the Coast Guard's current and future workforce.
- Develop and implement a communication plan to ensure all members are aware of relevant policies and priorities, and strengthen leadership education to foster inclusive work environments.
- Promote accountability and monitor effectiveness by establishing and tracking relevant metrics.

We describe each of these recommendation areas in detail below, including specific initiatives for the Coast Guard to consider and the retention factors they aim to address.

Update Coast Guard Personnel Management Systems to Better Meet the Needs of the Coast Guard's Current and Future Workforce

Coast Guard personnel management systems and policies are continuously evolving to meet the needs of a changing workforce but were originally developed around a relatively homogeneous workforce: male members with a stay-at-home spouse. As the makeup of the Coast Guard changed to include diverse members with varying personal lives (e.g., women, single parents, members in dual working households), and in order to retain its diverse workforce, the Coast Guard must continue to reevaluate its current personnel management systems to ensure they provide equitable opportunities for all. In the sections below, we recommend initiatives aimed at addressing key personnel management related retention barriers for women in the Coast Guard. In many cases, these recommendations will also be beneficial to Coast Guard members more broadly.

Explore Options to Augment Unit Human Capital During Parental Leave

We found that women often face a stigma related to being away from their unit leading up to and during parental leave.[1] For example, some women felt there was an undertone of resentment toward female members because some at the unit had to cover their workload or felt that women were shirking their duties while on parental leave. Whether overt or only a perception, women often felt guilt related to medically related pregnancy restrictions or taking their parental leave. Many felt anxious about taking the full leave, and some even felt the need to continue to work to some

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[1] The Coast Guard's parental leave policy covers both maternity convalescent leave following the birth of a child and caregiver leave for a primary and secondary caregiver. See Mieszala, 2018.

degree while they were technically on leave. This stigma and potential backlash against female members did not just occur when women were pregnant. In some situations, this stigma was present just because a woman was part of a unit and other members of the unit assumed she would eventually become pregnant and be unable to perform her duties at some point.

Certain circumstances can exacerbate pregnancy-related stigma. For example, women who had difficult pregnancies or who were in certain ratings or specialties (e.g., pilots, those who are exposed to chemicals on the job) were unable to perform their job duties while pregnant. In addition to the stigma, this situation increased the amount of time that a female member was unqualified or limited in her ability to contribute to the unit beyond the parental leave period, and it can further contribute to a negative environment.

To address and diminish these stigmas, we recommend the Coast Guard explore options to augment units with additional manpower during members' parental leave or, if necessary in certain circumstances, during pregnancy as well. Not only would this reduce the negative impact parental leave can have on unit workload, but it would also relieve pressure on women wanting to take parental leave. We propose two options for the Coast Guard to consider.

The first option is for the Coast Guard to leverage support from reserve members through Active Duty for Operational Support (ADOS). Per Commandant Instruction Manual (COMDTINST) 1330.1D, ADOS, involving temporary full-time duty, is intended to provide the necessary skilled manpower to temporarily support existing or emerging requirements of the Coast Guard active component. Through ADOS, available reservists could temporarily augment a unit while female members are on parental leave, including limited medical duty beforehand if applicable, so that the unit manpower levels will remain the same. This recommendation is consistent with solutions proposed in previous research (Ladyga et al., 2017). If the Coast Guard pursues the ADOS option, a service-wide pool of funds should be designated for this purpose so that it would not need to be covered by the unit. We recognize that ADOS would be an imperfect solution since it relies on a reserve member with the appropriate skill set being available and wanting to come on active duty during this time frame. However, it could be a viable option for some situations.

The second option is for the Coast Guard to explore supplementing units by allowing members to transition to Temporary Limited Duty (TLD) status during parental leave. TLD is a duty status introduced in COMDTINST M1850.2D whereby a medical officer identifies a member with a short-term medical issue that precludes them from performing their job duties for a limited time and has an expected recovery. By allowing pregnancy to qualify for TLD status, the pregnant member's billet will be open for another member to fill during the mother's parental leave. When the member returns from parental leave, she can rejoin her unit in TLD status. This would not only allow for the unit manpower level to remain constant during her parental leave,

but also allow for extra manpower as she transitions back to her unit after her leave and allows the member who filled her previous billet to remain in that billet for the remainder of the assignment. Furthermore, this could also help provide more afloat opportunities for women while current berthing restrictions are in place, since another woman would be able to take the place of an afloat member on parental leave instead of leaving that afloat billet empty. Finally, this option would also allow the returning female member more flexibility in making up the time on leave (e.g., by having the flexibility to focus on required qualifications) and diminish the impact of parental leave on female members' careers.

We recognize that TLD might not be appropriate in some circumstances. For example, if the pregnant member is in a specific leadership position, such as command cadre at a unit, she would likely not want to transition to TLD if it meant that she could not return to her leadership role. However, this would likely not be an issue for more junior members.

We recommend the Coast Guard explore a combination of both potential options: unit manpower augmentation through ADOS and TLD. One option may be more appropriate than another depending on the situation. Therefore, we recommend these be options that units can apply for based on workload and existing manpower resources. Although our recommendation is focused on parental leave affecting women, the recommended policy changes could also be beneficial to men taking parental leave or for other situations where appropriate.

Explore Options to Minimize the Impact of Parental Leave on Evaluations and Promotion

Women perceived that pregnancy and parental leave could also have a negative impact on female members' evaluations and promotion potential under the current personal management system. Women, particularly officers, raised concerns that time away during parental leave allowed them less time to build competitive OERs, potentially making them less likely to get promoted when compared with peers who could report achievements during the entire evaluation period. This issue was even more of a problem for women who had difficult pregnancies that prevented them from completing their normal job duties or women who were in ratings or specialties (e.g., pilots) where they were unable to perform their job duties while pregnant. This impact on their careers then influenced their desire to stay in the Coast Guard. Previous research has also identified this issue and the need for potential policy changes (Wirts and Johnson, 2016).

To address this issue, we recommend several promotion flexibilities that the Coast Guard could offer to ensure advancement opportunities are fair and women are not inadvertently penalized for having children. First, we recommend the Coast Guard consider allowing its members to choose to extend their evaluation period in situations where they feel that parental leave or pregnancy restrictions will cause their evaluation

report to substantially suffer. This would provide women additional time to perform activities that will enhance their evaluation reports and make them competitive for promotion. If the Coast Guard pursues this option, we recommend the Coast Guard implement the recommendation in a manner such that the reason for the evaluation period extension will not be viewed negatively by promotion boards, possibly similar to a Change in Reporting Officer or a Change in Reported on Officer OER.

Women also found that pregnancy restrictions and parental leave resulted in inadequate time to meet the qualifications typically gained during a normal tour length before having to move on to a new assignment. To address this situation, another option we recommend the Coast Guard consider is for its members to be allowed to extend their current assignment so they have the equivalent functional time at a unit to complete qualifications as other members. We understand that an assignment length extension is not unprecedented for enlisted members; however, we recommend this flexibility for officers that will not be viewed negatively by the service.

Finally, we recommend the Coast Guard consider allowing its members to choose to delay their promotion window to account for time away due to parental leave or pregnancy restrictions. Perhaps similar to the TEMPSEP program, members exercising this option could adjust their dates of rank. These recommendations are in line with the recent FY19 National Defense Authorization Act (NDAA) legislation for DoD to promote flexible career paths, including allowing for opting out of promotion board consideration. While the NDAA legislation is aimed at the DoD military services, we recommend the Coast Guard align its policies with the NDAA priorities, as it usually does.[2]

Of note, while these recommendations are again designed to address female members' concerns about the impact of parental leave on promotion, the proposed policy changes could also benefit men taking parental leave. Furthermore, these options could also be made available to all members who have medical or other appropriate issues that affect their ability to be competitive for promotion and who would benefit from the additional time provided by these options.

Continue to Explore Solutions to Improve Child Care Options

One of the most important family-related issues that women raised was finding quality, affordable child care that fit Coast Guard schedules. The Coast Guard has worked to provide several options to help members with child care, including Coast Guard and DoD-sponsored CDCs, the Family Child Care (FCC) program in which spouses in Coast Guard housing become credentialed to provide child care, and a subsidy to supplement child care costs when CDCs or an FCC are not available. Following comple-

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[2] As described in Chapter 2, academia has implemented "stop the clock" initiatives to mixed reviews. However, concerns noted in Chapter 2 related to men using their time away from their academic positions to produce more research and publications and reentering the workforce in a stronger position than their female counterparts would likely not be applicable in a Coast Guard environment as recommended.

tion of our focus groups in the summer of 2018, the subsidy was increased for high-cost locations (e.g., Washington, D.C.), which addresses some of the concerns we heard. However, we recommend the Coast Guard continue to monitor this adjustment to see if it helps alleviate the child care–related cost concerns expressed in the focus groups.

Child care resources like CDCs and FCCs are not available in many of the locations Coast Guard members are assigned, however, and finding child care can be particularly difficult in more remote locations. In addition, even when child care options exist, they typically do not accommodate overnight or extended care often associated with Coast Guard duties (e.g., standing watch overnight, working a 12-hour shift, getting underway, deployment).

To help address this gap, we recommend the development of a centralized information repository that Coast Guard members could access that would include information on local options for child care that Coast Guard members have used in the past, including day-care centers, babysitters, and nannies in the local area. The information repository could be managed by regional family resource specialists who already collect this type of information, but it should also allow members to input information directly so they can share their experiences and resources with others. Success of such an information repository depends on members taking the time to share information, so having the family resource specialist work with local commands, ombudsmen, and spouse groups to encourage members to participate would be critical. The goal of such an information repository would be to prevent service members from having to start from scratch at each new location when another family may already have done the research for that local area and have resources they could pass on to others. Previous research has also recommended improved information sharing related to child care needs and prioritization of related resources, consistent with the intent of this initiative (Ladyga et al., 2017; Wirts and Johnson, 2016; USCG, 1990).

Consider Modifying the Weight and Body Fat Standards Program to Minimize Potential Negative Impacts on Female Members

Women perceived inequities with the current Coast Guard Weight and Body Fat Standards Program, outlined in COMDTINST M1020.8H (2016). For example, women reported that they believed that the standards did not account for different female body types or permanent body changes after childbirth, and the current standards led to unhealthy crash dieting rather than focusing on health, fitness, and physical ability to perform job duties. In particular, women raised concerns regarding body fat measurement through taping, required if a member exceeds the BMI maximum assessed through height and weight. We explore this further in Appendix G, which suggests that outcomes of body fat assessment tapings may potentially affect women more negatively than men. Additionally, women raised concerns about measurement inconsistencies and uncomfortable situations that occur because tapings are performed by YNs

rather than by medical professionals. These weight and body fat standards and associated stress were a factor that influenced women's decisions to leave the Coast Guard.

Although we acknowledge that there was a recent review of the policy in 2017, we recommend the Coast Guard reevaluate and consider modifying the current Weight and Body Fat Standards Program. First, the Coast Guard should assess the objectives of the program and align the standards accordingly. BMI has been criticized in relevant literature as a less effective measure of body composition and general health compared with other available measures such as waist circumference (Friedl, 2012). We recommend the Coast Guard explore alternative measures to either replace or augment current standards. For example, if the Coast Guard opts to maintain the current BMI taping policy, we recommend it consider introducing a physical fitness test option for members who do not meet weight or taping standards. The fitness-fatness index could also be employed to combine measures of cardiorespiratory fitness with waist circumference to promote a more comprehensive indicator of health risk and overall physical readiness to perform job duties (Edwards, Addoh, and Loprinzi, 2017).

It is beyond the scope of this study to prescribe exact modifications to current Coast Guard weight and body fat standards. However, we recommend exploring alternative options to address perceptions of gender inequity and promote accurate measurements aligned to program objectives. We also recommend that the Coast Guard explore options for having trained medical professionals rather than a YN perform body fat tapings to promote accuracy and reliability and alleviate women's privacy concerns related to being taped by peers.

Continue to Explore Creative Solutions to Female Berthing Limitations

Women stated concerns regarding limitations to female berthing on some Coast Guard cutters and boats and how these limitations restricted their options for sea-time opportunities. We recognize that the Coast Guard is making strides to convert berthing facilities to include mixed-gender options and incorporate mixed-gender berthing into new assets. However, women suggested that there is still room for improvement so that they have equal opportunity for assignments that meet sea-time requirements often needed for advancement or promotion. Furthermore, our quantitative analysis shows that the lower tendency for women to experience operational time aboard non-high-endurance cutters could be a contributing factor in women's relatively lower reenlistment rates. COMDTINST M1000.8A mandates that female sleeping quarters be separate, "with privacy provided by rigid bulkheads." Some women in our focus groups suggested that other, more flexible, options (e.g., curtains or other means to provide privacy) could enable women access to boats without having these permanent physical barriers in place. We recommend the Coast Guard continue to explore creative solutions to limitations to female berthing with the goal of making all assets mixed gender.

Develop and Implement a Communication Plan to Ensure All Members Are Aware of Relevant Policies and Priorities, and Strengthen Leadership Education to Foster Inclusive Work Environments

The Coast Guard has made a good deal of progress identifying the need for and establishing female-specific policies and policies that support the needs of members' families and personal lives. However, women in our focus groups described experiencing inconsistencies in the implementation of these policies (e.g., not being provided proper lactation facilities or breaks even though there is a policy on this) and that these experiences affected their retention decisions. To address these inconsistencies and ensure policies are reliably implemented across the service, we recommend the Coast Guard pursue communication and educational efforts aimed at improving policy awareness and understanding as well as emphasize these as priorities for the Coast Guard. This should include an increased level of leadership development training to address leadership issues identified in our analysis that are influencing women to leave the Coast Guard. These educational efforts should enable leaders to promote and prioritize inclusive work environments aimed to improve retention. We outline three initiatives to support this recommendation.

Communicate and Educate Leaders and Members on Female-Specific Coast Guard Policies

According to female members, Coast Guard leaders may be unaware of or unfamiliar with female-specific Coast Guard policies, despite the service's efforts to put these policies in place. Whether because of leaders' varying interpretations or understanding, these policies are not always being implemented in practice or are implemented in a nonstandardized manner. To address this issue and ensure female-specific policies are implemented across the board in a more standardized manner, we recommend the Coast Guard develop a communication and education plan for leaders. The effort should ensure leaders are fully aware of and understand female-relevant policies and emphasize the importance of adherence to these policies. Female-relevant policies may include but are not limited to policies related to pregnancy (e.g., potential duty limitations during pregnancy, parental leave policy), breastfeeding (e.g., providing appropriate lactation facilities and work breaks), and hair and cosmetic standards. We recommend the Coast Guard institute mechanisms to ensure leaders are held accountable for knowledge and consistent implementation of female-specific policies. This communication and education plan and associated accountability mechanisms should be implemented in a manner that does not contribute to additional bias toward female members.

In addition to educating leaders, we recommend that female-relevant policies intended to address or improve the work environment, especially those that may have been recently updated, be clearly communicated to all members and be readily available

for female members to access and review. We found that some female members were unaware of more recently updated policies. In fact, we were alerted to a manual outlining pregnancy-related policies and resources for women that had been put together by a female Coast Guard member out of necessity since she was not able to find all the information in a single place.

Expand Opportunities for Comprehensive Coast Guard Leadership Development Training

Men and women alike identified a need for more comprehensive leadership development training for both officers and enlisted members. Both genders noted that some Coast Guard leaders lacked leadership skills, which can negatively affect unit climate. This deficiency could be addressed through more extensive leadership development training.

We recommend the Coast Guard expand mandatory leadership development training, including more frequent development training throughout a member's career and for longer periods of time. This training can help to inculcate leadership core competencies, emphasize the need to support subordinates' work-life balance along with achieving the mission, and create an inclusive unit culture and climate that is a positive environment for all members. In particular, improved unit culture could address negative work environment factors identified by women that influence their decision to leave. Previous research has also recommended improvements to Coast Guard leadership training, serving as additional evidence of this need (Wirts and Johnson, 2016).

Additionally, leadership training should emphasize the importance of mentoring other members and, in particular, reaching out to junior female members. We found that Coast Guard women did not always have access to desired mentorship and that some male leaders were hesitant to form mentorship relationships with the opposite gender, often because of the possible misperception that they are having inappropriate relationships with women. Leadership training should also provide leaders with the skill sets to foster mentoring relationships with their subordinates. Previous research also outlines the need for improved mentoring opportunities (Ladyga et al., 2017). Additional leadership development training has the potential to improve unit climate and work environments for all members, not just female members.

Emphasize to Assignment Officers the Importance of Assignment Policies Designed to Meet the Needs of Members' Personal Lives

Assignment process outcomes are a factor women consider when deciding how long to remain in their Coast Guard careers. For members in dual Coast Guard marriages, concerns about not getting colocated with spouses and having tours that are not aligned, among other issues, can be a deciding factor to leave the Coast Guard. A lack of geographic stability and related impacts on family and personal lives, including issues for civilian spouses, can also be a reason members choose to leave.

Coast Guard assignment policy for dual Coast Guard marriages, outlined in COMDTINST M1000.8A, states that members should be colocated whenever possible. In July 2018, after we completed our focus groups, the Coast Guard also amended the current assignment policy to "align tour lengths of active duty members married to other active duty members in paygrades E1–E6 and O1–O4 who wish to be collocated" (USCG, 2018).

Informed by what we learned in our focus groups, we believe that the update to the policy to align tour lengths for active-duty couples should help address many of the concerns we heard. However, because women still cite assignment process outcomes as unfavorable despite the overall colocation policy, it is unclear how often the colocation policy is implemented or when the needs of the service prevail. We recommend the Coast Guard continue to emphasize policies that support colocation, geographic stability, and other personal and family life considerations and direct assignment officers to prioritize these policies whenever possible. Additionally, we recommend the Coast Guard increase the transparency of the assignment process and track the incidents where a policy is trumped by "needs of the service" so that members better understand assignment outcomes and how their preferences and personal life needs were considered in the process.

Promote Accountability and Monitor Effectiveness by Establishing and Tracking Relevant Metrics

The Coast Guard has invested resources to identify barriers to improving female retention and made progress in updating policies to address female members' concerns. However, to understand how resource investments and policy changes, both existing and those made in the future, affect female members' retention, the Coast Guard must continue to define and consistently track relevant metrics to measure progress. Additionally, establishing metrics and measuring progress is necessary to promote accountability and maintain a focus on improving female retention in the Coast Guard.

Continue to Monitor Retention Trends and Track Reasons for Attrition

As a foundation, the Coast Guard should continue to examine basic gender differences in retention trends, including potential differences within specialties or ratings that may exist. As the Coast Guard moves forward with various initiatives designed to address retention, these trends will be important to monitor to assess whether they are having the intended impact.

In addition, the Coast Guard should continue to examine and track reasons for attrition from the Coast Guard. The Coast Guard currently conducts its Career Intentions Survey to track retention intentions and reasons for staying and leaving. This is one critical component of being able to monitor trends and the impact that changes

in policies and programs may have on retention intentions. As a complement to this survey, the Coast Guard also conducts exit surveys. We believe it is critical to continue to consistently capture factors that cause members to leave the Coast Guard in exit surveys. These can be assessed over time to help the Coast Guard track the reasons female members, or any other demographic group, are leaving the Coast Guard. It would be especially helpful to identify changing trends and if known barriers are being addressed. The Coast Guard could consider exploring exit survey mechanisms in other military services that may be adapted for use in the Coast Guard. Most important, the efforts to track retention intentions and reasons for attrition on exit surveys must remain consistent over time.

Ensure Workforce Data Track Relevant Variables in a Comprehensive Manner

As noted in Chapter Four, the quantitative analysis was limited by the available Coast Guard workforce data and could have explored additional factors if these variables had been present in the data set. To enable future retention analyses, we recommend the Coast Guard make efforts to track workforce data elements that have been identified as potential barriers to retention. These data elements may currently be available in snapshot form, but to assess their impacts over time and effects on retention, they must be tracked such that they can be measured over time. For example, we recommend the Coast Guard track members married to other members over time to further explore the impacts of dual Coast Guard marriages on retention in the future. Additionally, our analysis constructed deployments based on cutter movements, but we recommend the Coast Guard track longitudinal information on sea-time (by platform) and non-cutter-related deployment experience to enable tracking that reveals a more comprehensive picture of deployments over time and impacts on retention. Finally, we also suggest the Coast Guard improve the quality of data captured at weigh-ins to allow for more in-depth exploration into retention impacts and operational efficacy of the weight standards.

Framework for Implementation

Next, we provide a framework the Coast Guard can use when planning implementation of the proposed initiatives. The framework assesses initiatives in terms of *potential for impact* and *implementation difficulty*, as show in Figure 5.1 (Keller et al., 2018).

We define potential for impact as the relative degree the initiatives may have an effect on female retention in the Coast Guard. We estimate this based on the retention barriers the initiative is addressing and their prevalence in our analysis. For example, Does this initiative address multiple or key retention barriers? How prevalent were the retention barriers in our focus group discussions? We assess implementation difficulty based on the relative complexity of initiatives, broad estimates for resource investments

Figure 5.1
Implementation Framework
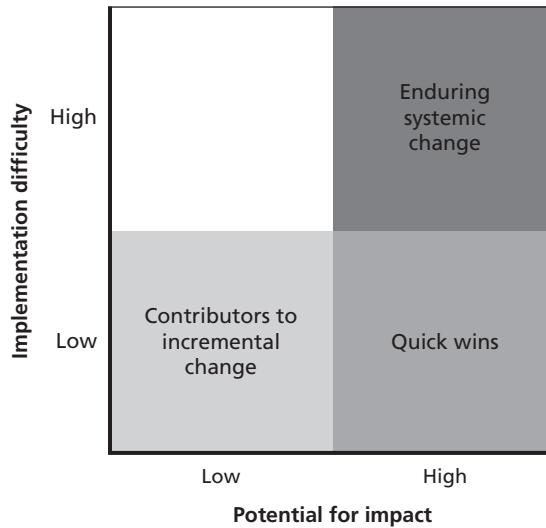
required, time required for implementation, and potential for unintended consequences based on substantial changes to personnel systems or policies.

Assessment along these two dimensions results in a framework that identifies three categories of initiatives: quick wins, contributors to incremental change, and enduring systemic change. Quick wins include initiatives that are relatively easy to implement and have the potential for high impact on female retention barriers. These are initiatives that should be prioritized for implementation in the near term, since they require less effort but can still move the needle on female retention. Contributors to incremental change include initiatives that are also relatively easy to implement but that have a lower potential to significantly affect female retention. These initiatives may have a narrower focus that addresses a single, less pervasive, issue but still contribute to improving the work environment for female members. Initiatives falling in the category of contributors to incremental change should be prioritized for implementation after initiatives from the quick wins category, in the medium term, because they have less potential for impact. Initiatives in the enduring systemic change category will likely be more difficult to implement but have the potential to have a strong effect on female retention and result in lasting change. These initiatives should be implemented over the long term to allow for consideration of resource needs, structural changes, and unintended consequences that may result from significant changes to the personnel system or policy. Below, we outline our proposed initiatives from our first two overarching recommendations in this framework.

Quick Wins

We identified one of our initiatives as a potential *quick win*:

- Communicate and educate leaders and members on female-specific Coast Guard policies.

Based on our findings, leaders and members may not be fully aware of female-specific Coast Guard policies, and these policies are not currently implemented uniformly in practice. A communication and education campaign to address this issue should take minimal effort and resources to implement. It could, however, have a significant influence on women's experience in the Coast Guard, provided all leaders followed these policies in practice and women were more aware of these resources available to them.

Contributors to Incremental Change

We consider four of our initiatives as *contributors to incremental change*:

- Consider modifying the Weight and Body Fat Standards Program to minimize potential negative impacts on female members.
- Continue to explore creative solutions to female berthing limitations.
- Continue to explore solutions to improve child care options.
- Emphasize to assignment officers the importance of assignment policies designed to meet the needs of members' personal lives.

Some of these initiatives are more narrow in focus and only address one issue (e.g., weight standards and female berthing limitations). Other initiatives related to child care–related knowledge and assignment policies address issues we heard raised very often but focus more on providing and sharing information. Therefore, for all these recommendations, they may not significantly increase female retention directly on their own, but together they can contribute to creating a more supportive and equitable workplace climate for women.

Enduring Systemic Change

Three of our initiatives can be described as promoting *enduring systemic change*:

- Explore options to augment unit human capital during parental leave.
- Explore options to minimize the impact of parental leave on evaluations and promotion.
- Expand opportunities for comprehensive Coast Guard leadership development training.

Based on our findings, we believe that these three initiatives, while the most difficult to implement, have the potential for high impact on female retention, resulting in enduring systemic change. The stigma that is associated with women's parental leave is pervasive and can create a work environment that drives women out of the Coast Guard, according to our findings. Augmenting manpower gaps can help address this stigma and potentially have a relatively high impact on retention. However, we understand that this would require significant resources and policy and structural changes to implement and is not a quick fix. Of note, this initiative requires potential increases to end-strength, which could be particularly costly. Parental leave impacts on evaluation and promotions can also divert women from successful career paths and create feelings of inequity in the work environment that influence their decisions to leave their careers. Addressing these issues have the potential for significant retention impacts and would create updated evaluation and promotion systems that consider members' family needs. However, this initiative requires structural and policy changes that could be difficult to implement and have unintended consequences that the Coast Guard should consider. Women as well as men expressed a desire for expanded leadership development training. This has the potential to address a host of work environment factors identified as retention barriers in our findings and create a cadre of Coast Guard leaders that promote inclusive work environments free from the negative factors women currently experience. Investments in expanded leadership training will require resources and effort to structure the training appropriately and effectively. We recommend the Coast Guard consider implementing these initiatives over the longer term after further assessing the potential impacts of these changes.

Enabling Constructs

The initiatives from our third overarching recommendation that we consider *enabling constructs* are as follows:

- Continue to monitor retention trends and track reasons for attrition.
- Ensure workforce data track relevant variables in a comprehensive manner.

These initiatives are not considered as part of the implementation framework categories presented thus far (and shown in Figure 5.1). Instead, we consider them enabling constructs that serve as the foundation of implementation efforts. These initiatives support accountability and measurement necessary for successful organizational change and help to assess progress. Throughout the implementation effort to address barriers to female retention, the Coast Guard must define clear metrics in the data and measure progress.

A strategic measurement effort should establish metrics that both assess the implementation of initiatives (implementation metrics) and the outcomes produced as a result of those initiatives (outcome metrics) within an overarching theory of change

(Paul et al., 2015). Implementation metrics will provide feedback on whether initiatives in the framework outlined in Figure 5.1 have actually been conducted as planned, driving the organizational change effort forward. Outcome metrics, like the initiatives under the third overarching recommendation, will measure whether the programs produce the desired changes in female retention intentions and, ultimately, progress toward the desired end-state of improved female retention in the Coast Guard.

Summary

Based on our research findings, we propose three overarching recommendations, with ten associated initiatives, to address female retention barriers in the Coast Guard. We suggest an implementation framework that identifies one initiative as a quick win for prioritized implementation in the near term, four initiatives as contributors to incremental change for implementation in the medium term, and three initiatives that have the potential for enduring systemic change but will be more difficult to implement and should be considered over the longer term.

It was beyond the scope of this study to assess the detailed impact of the required changes to implement these initiatives. Thus, we recommend the Coast Guard explore costs and potential additional impacts of structural or policy changes particularly for the initiatives that involve more complex implementation requirements. The Coast Guard could explore these impacts through options such as pilot programs and member surveys to gauge representative responses to new policies or programs.

It is important to note that although these recommendations and initiatives are focused on improving female retention, many aspects will apply to all members and have the potential to improve the work environment across the service. Finally, we recommend that the Coast Guard monitor retention trends over time and any changes to retention based on proposed initiatives, should the Coast Guard choose to move forward on implementation. Monitoring should be conducted according to the metrics guidelines outlined as *enabling constructs* for promoting accountability for improved female retention in the Coast Guard.

Summary of Previous Studies on Women in the Coast Guard

As part of our study background, we reviewed prior research on women in the Coast Guard to provide a foundational understanding of what is already known about women's issues and retention in the Coast Guard and what has been previously recommended to address identified barriers. Our literature review included documents ranging from in-depth studies on women's retention and related factors, retention across different military services, relevant surveys that have been conducted, and official Coast Guard guidance and memorandums pertaining to women. This appendix provides further detail and discussion of each of these studies. We first review studies that focus on female retention in the Coast Guard specifically. We then review studies related to specific Coast Guard policies, benefits, and programs that may influence retention, and then review other relevant studies.

Female Retention in the Coast Guard (1990–2017)

Study of Women in the Coast Guard (USCG, 1990)

The United States Coast Guard Chief of Staff last conducted a full study on women's retention in 1990. The intent was to increase the number of women serving in the Coast Guard and "to improve the service by providing a better understanding of the issues facing women in the Coast Guard and to define the impact these issues have on the organization" (p. 1).

Methods

Twenty topics were explored, the most relevant of which are listed in more detail below. Over 2,600 service members (women and an equal number of men) were surveyed through an 85-item questionnaire sent to several Coast Guard sites; 110 interviews were conducted at 20 sites, and a small task force of women and men conducted independent research on the topic.

Findings

The *Study of Women in the Coast Guard* thoroughly described several results focused on recruitment and retention, school training, promotion, quality of life, and family

matters such as pregnancy, medical issues, and child care and geographic stability. We summarize here some findings that relate to our 2018 analysis highlighted throughout this report. At the time of the study there was no policy to recruit women, and attrition rates were high specifically for enlisted women less than two years into service. The study found that women were leaving the USCG for family reasons, and the rates of attrition depended on educational background. The research also found that women left the Coast Guard Academy for reasons such as sexual harassment and weight standards during training.

Additionally, female officers had more opportunities to be afloat than enlisted members did, which had an effect on career development. The study also found issues with berthing and appropriate facilities for women afloat, as well as command afloat not accommodating specific female needs such as adequate supplies of birth control. Women voiced dissatisfaction with medical services for gender-specific issues and privacy concerns, among others.

Participants also emphasized the importance of child care, and some perceived a negative view toward pregnancy and being a single parent among other Coast Guard personnel. In cases of sexual harassment, women did not believe that the harasser would be punished. Finally, women noted that the ability to stay in the same assignment area could greatly reduce some of the issues related to colocation and moving expenses.

Recommendations

In terms of recommendations, the study found that information specific to women's needs was not available to service members and that providing needed information could help alleviate many of the concerns. The study stated that female representation should be increased for officers and enlisted through increased recruitment, women should understand career options/ratings, leadership needed to understand how to integrate women in the Coast Guard, and female role models were needed. Also, the Coast Guard leadership needed to make clear that sexual harassment will not be tolerated and that counseling could be useful. There were women who wanted to take parental leave for up to two years with the ability to return to the Coast Guard; since the study took place, this has been implemented under the Temporary Separation (TEMPSEP) program. Finally, the report suggested a clearinghouse for information on women's issues.

The Coast Guard as a 21st Century Employer of Choice: Impacting the Retention of Women in the Service (Wirts and Johnson, 2016)

This document describes research that was conducted by the Coast Guard Women's Leadership Initiative in 2016. The document states that women are leaving the service at a rate that is 10–20 percent higher than men, with the highest attrition in the first 5 to 11 years of service. The report describes several issues and solutions based on input

from a Coast Guard Women's Organization for Recognition, Leadership, and Development (CGWORLD) event hosted at a Bay Area Women's Leadership Symposium in March 2016.

Methods

Data for the report were collected during an interactive session with 200 participants at the CGWORLD event, of whom 85 percent were female, were 50 percent officers, were 37 percent enlisted, and were 13 percent civilians. The Coastal Beauties Facebook page was also used to obtain feedback from Coast Guard women who have left the service.

Findings

Based on analysis of these sources, the authors found three broad categories of women leaving the Coast Guard: (1) those discharged for a behavior-related issue; (2) those who "looked ahead at their potential career paths and decide the Coast Guard is not for them"; and (3) those who wished to remain in the service but felt they either could not balance the competing demands or could not hurdle organizational barriers. According to the study, most identified barriers fell into four categories: "impact of pregnancy; assignments and colocation; professional growth and leadership (or lack thereof), particularly in regards to gender diversity; and parenting" (p. 2).

Recommendations

The authors developed 15 recommendations to "ensure the USCG is positioned as an employer of choice in the 21st Century" (p. 3). Twelve of the 15 proposals were intended to benefit both men and women. The proposals included encouraging "organizational citizenship," in which service members were to be active in professional organizations and the community; expanding leadership development to focus on diversity and inclusion aimed at member readiness; and providing training on implicit bias and leadership principles through scenario-based curriculum. Proposals related to pregnancy included changing the way days not at unit are observed for reviews (OERs, EERS) during pregnancy and postpartum convalescence. Other items included deferring deployment up to 12 months after pregnancy and aligning tour lengths for member-to-member spouses. Other important family recommendations included expanding colocation policies beyond spousal considerations, so elder care was included. The study also recommended more parental leave, more information made available on child care, and more resources about pregnancy and other issues specific to women.

Duty to People: Retaining Coast Guard Women (Ladyga et al., 2017)

This study was completed as part of a master of public administration (MPA) program at George Washington University. Research questions focused on women's separation rates in the Coast Guard with any possible difference between enlisted and officer members concerning attrition. The authors also sought to understand internal and external

factors influencing retention and how they compare to the 1990 study findings, as well as gender perceptions and programs and policies influencing women's retention.

Methods

The authors conducted an active-duty email survey of both genders that drew a 30-percent response rate. Of the 1,571 respondents, 57 percent were women and 43 percent were men, while 40 percent were officers and 60 percent were enlisted. Also, a Facebook survey with the same questions was sent to separated members; the result was almost 200 responses—99 percent from women. Questionnaires were also provided to the Rating Force Master Chiefs and the Recruiting Command (CGRC), which drew 22 and 15 participants, respectively. Finally, the authors conducted the Coast Guard's Standard Personnel Cost model and analyses using existing workforce data. The report noted several limitations such as low response rates and the potential for data-coding inconsistency across measures because some surveys were not fully representative.

Findings

The report listed almost 50 findings. The eight key findings they provide at a high level are listed verbatim below (Ladyga et al., 2017, p. 3).

1. Existing workforce data confirm that women are voluntarily leaving the Coast Guard at disproportionately higher rates than men.
2. The Coast Guard has established women's retention as an organizational priority; however, it's unclear how effectively the Service's workforce management programs, policies, processes, and activities are working together to achieve desired outcomes.
3. There are organizational, financial, and operational costs to the Coast Guard because of high female attrition.
4. Women are not leaving the Service solely to have children, but to pursue other professional or educational opportunities, for geographic stability, or due to unfair or unequal treatment.
5. Work-life issues and family concerns continue to play a major role in a woman's decision to leave the Service.
6. A series of deeply ingrained unconscious biases appear to shape Coast Guard members' perceptions and organizational culture.
7. The Coast Guard's "policy infrastructure" to support working families does not appear to adequately address the dynamic needs of its members, resulting in undesirable work/family conflicts negatively impacting members' commitment to the Coast Guard.
8. Unless changes are made, the Coast Guard may face a more significant "talent management" issue in the future that could inhibit it from becoming distinguished as the "Service of Choice."

Recommendations

Informed by their study findings, Ladyga and colleagues provide nine recommendations, listed verbatim below.

1. Develop a comprehensive strategy to achieve women's recruiting and retention goals, including a theory of change that links resources, programs, and activities to desired short/long term outcomes.
2. Standardize the types of gender data collected across all stakeholders.
3. Strengthening family benefits should be reemphasized as a Coast Guard priority, specifically support for childcare resources.
4. Build a knowledge repository to assist policy initiatives and actions.
5. Integrate lesson plans that include unconscious bias within existing curriculum at leadership training.
6. Establish a strategy, with resources, dedicated to developing and evaluating workforce and talent management.
7. Consider several policy initiatives that could improve work-life balance, including:
    a. 1-year deferment of TAD/TDY (Temporary Additional Duty/Temporary Duty) orders and shipboard deployment postpartum.
    b. Clarify when matched tour lengths for married member-to-member couples will be issued.
    c. Special consideration for single parents and member-to-member couples, with dependents, who are both assigned to duty/watch-standing billets, for assignment near a 24-hour CDC or family.
    d. Amend paternity leave from ten to 21 days and extend leave to all, regardless of marital status.
8. Consider other workforce management policy initiatives, including:
    a. A waiver for the Childcare Subsidy Program to consider "non-standard" facilities in certain circumstances. For example, in semi-isolated areas where a standard facility does not exist.
    b. Allow ADOS requests to fill gaps due to maternity leave for members in duty/watchstanding billets.
9. Fund CGRC to develop and implement a targeted marketing strategy for women.

Career Intentions Survey (USCG, 2017)

The "Analysis of Career Intentions Survey (CIS) 2017" examined Coast Guard retention research from 1978 to the time of the study and used attrition data as a way to put the retention research into context. It sought to identify the reasons service members leave or stay and whether those reasons differed by gender.

Methods

The Coast Guard provided its Career Intentions Survey to offices, including "PSC, LDC, FORCECOM Performance Technology Center, Office of Leadership, Office

of Diversity and Inclusion, Office of Workforce Forecasting and Analysis, and the Office of Work-Life." We do not have details on the methodology related to the survey discussed within the report. The document reviews "leavers" and "stayers" and their responses to a set of 29 questions answered on a five-point scale, such as "I had adequate opportunity for career advancement," "I have witnessed harassment while in the CG," or "Training opportunities were distributed fairly."

Findings

The main findings related to women's retention emphasized that women are leaving their Coast Guard careers earlier than men. Some reasons noted were that women perceived less respect after two years of service (based on a 2014 organizational assessment survey) and that women left for family reasons, although there was no statistical support for the latter finding. The study found a decline in retention around the completion of service years and more stable retention rates after 12 to 20 years of service because of vested retirement. Harassment was also mentioned as something that people leaving had witnessed but was not distinguished by gender.

Recommendations

Recommendations focused on the promotion system—for example, helping operators and support specialists move toward operator talent pools and increasing specialization of the support systems—and changes to the assignment process, such as consideration for time for skills development.

Women's Retention Challenge (USCG Innovation Program, 2018)

The Coast Guard's *Women's Retention Challenge* report describes how current service members related to women's retention.

Methods

The *Women's Retention Challenge* is one of several challenges that Coast Guard programs have sponsored through CG_IDEAS@WORK, a web-based crowdsourcing platform run by the Coast Guard Innovation Program. The 7,700 registered users of the platform can "present, discuss, and vote on ideas" that are then "presented to the sponsor program for further development and implementation," the report says. The report analyzed more than 30,000 words of ideas, thoughts, and comments from the anonymous, self-selected pool of users.

Findings

The report on the challenge contains candid stories from members in the Coast Guard community and provides a source of data on many of the issues raised that were similar to ones found in other studies. According to the report,

> Themes discussed as contributing factors ranged from sexism to toxic leadership to geographic stability. The most commonly-discussed items aligned with Human

Resource issues such as the assignment, promotion/advancement, and evalua-tion processes. Work life balance concerns were also discussed, but often in the context that women's retention should not be simplified to maternity issues. A common sub-theme throughout the comments was a perception of a general enter-prise unwillingness to embrace diversity, as manifested in a senior leadership corps largely composed of white males (p. 5).

Other issues mentioned in the discussion included recruitment and the need to modernize recruitment practices, respectful leadership, the equal employment opportu-nity (EEO) process, and diversity and sexism. For example, some users questioned why male counterparts may obtain a position despite being less qualified. There was also a desire to have physical fitness tests be required and standardized regardless of sex.

Recommendations

While the report did not make specific recommendations, users voted on the ideas pre-sented. The most popular ideas involved leaders setting the tone to encourage respect among service members; fixing the EEO complaint process; addressing sexism that is perceived as still prevalent; and improving work-life balance for everyone, not just for parents.

Coast Guard Policies

Breastfeeding and Work-Related Travel Memorandum (Coast Guard, 2016)

The U.S. Coast Guard Midgrade Officer Career Transition Course work group deliv-ered a memorandum to the Commandant (CG-1) in December of 2016 that addressed issues related to breastfeeding and travel (TDY) challenges for Coast Guard mothers. The memorandum included narrative from 49 Coast Guard women but did not indi-cate the method for receiving information through interviews or other means.

Findings

The document highlighted that several mothers stopped breastfeeding earlier than medical professionals recommend because of work-related stressors including physi-cal, psychological, and financial issues, especially during involuntary TDY travel. The work group reviewed existing policy supports through programs like TRICARE, which covers the purchase of breast pumps. It also reviewed the Coast Guard policy to provide a private space for breastfeeding that is not a bathroom and indicated that this policy is not implemented consistently. The work group suggested revisions and addi-tions to Coast Guard policy to improve breastfeeding in the workplace.

Recommendations

The document recommended three courses of action (COA), which were cumulative, not exclusive. They are as follows:

- Change the culture surrounding breastfeeding by commands setting the expectation that breastfeeding involves a unique work-life balance. Commands should encourage supervisors and mothers to communicate their concerns about work-related travel, and commands should also consider alternatives and/or work-arounds (e.g., taking children with them, providing sufficient notice so mothers can store enough milk for the duration of the TDY). Commanders should also ensure mothers can pump in privacy during TDYs.
- "No breastfeeding mothers may be ordered to involuntarily perform travel" longer than 24 hours in the first six months after giving birth. This course also calls for commands to consider alternatives to travel (e.g., reassignment, arrange for children to come along). Unlike the first COA, this one has direct costs to the Coast Guard.
- The final COA recommends facilitating the storage of breast milk and reimbursing mothers for the shipping and handling of breast milk for TDYs five days or longer.

Female Afloat Assignment Optimization (Smith et al., 2014)

A research paper from the United States Coast Guard Academy Department of Mathematics was written by three cadets and four department faculty members sponsored by the Coast Guard Enlisted Personnel Management Division-Assignments Branch. The purpose of the project was to develop a mathematical optimization model that would improve the process of assigning female enlisted members to afloat positions to "maximize the number of females afloat while keeping the crew aboard each cutter gender neutral" (p. iii). Although the goals driving the development of this model were not directly related to retention, the authors note:

> Certain enlisted members of the Coast Guard, depending on their rate, must have at least six months of sea time before they can advance to certain ranks. With the number of female afloat opportunities currently constant, and the number of females entering the service increasing, the Coast Guard must provide these women opportunities to serve afloat and thereby the opportunity to advance to higher pay grades (p. 2).

This suggests that improving the process of assigning enlisted women to afloat positions could have an impact on their promotion rates. Higher rates of promotion for women has the potential to positively influence their retention rates as well.

Coast Guard Benefits and Programs

Blended Retirement System (Felger, 2017)

In 2017, a research report for the Air War College titled *Blended Retirement System Impact on Gender Retention* by CDR Sarah K. Felger tried to determine if the Coast Guard's new Blended Retirement System (BRS), a part of the National Defense Authorization Act of 2016, could be used as a tool to improve female retention. The report describes the difference between the current retirement system and the new BRS option launched in 2018. The BRS is available to all service members who opt-in to the new system.

Method

Interviews were conducted with ten active-duty members to gauge their familiarity with the new system, whether they will opt in or out of BRS, and what influence the new system will have on their decision to stay in the Coast Guard or separate. The report does not include a demographic breakdown of the sample.

Findings

The main findings and results of these interviews indicated that consideration of the BRS and other financial factors had little impact on a member's decision to separate from service.

Recommendations

Informed by the findings, the author suggests that the Coast Guard "should focus on leadership development, career progression, and overall quality of life issues for women and men" (p. iv). However, the report has significant limitations given its small sample size of ten people.

U.S. Coast Guard's Temporary Separations Talent Retention Program (Chamie, 2017)

A report conducted by CDR Adam Chamie evaluated what modifications could be made to the Coast Guard's TEMPSEP program to improve retention of female officers. Enlisted were not included in the scope of the study.

Method

The author interviewed 12 specialists in the offices of the Assistant Commandant for Human Resources (CG-1), Officer Personnel Management Division, Reserve Personnel Management (RPM) Division, and the Pentagon. He also reviewed historical data from the Office of Workforce Forecasting and Analysis (CG-126), and the Boards, Promotions, and Separations Branch (OPM-1). He then sent a survey with 22 questions to "206 men and women who completed TEMPSEP and either returned to active duty, transitioned to the reserves, or were about the begin their TEMPSEP period" (p. 2). Thirty-seven of the 105 women invited to participate completed the survey, and follow-up interviews were conducted with 20 of the 37 women. The study did not

include almost 200 other women who participated in TEMPSEP but were no longer affiliated with the Coast Guard.

Findings

The main findings indicated more women than men are likely to take TEMPSEP, half of those taking it did not intend to return, and 9 percent of those who took it returned to active duty. Looking at all separation types (e.g., resignations or discharges), 49 percent of women's separations occurred after being in TEMPSEP as opposed to 28 percent of men's.

Recommendations

Informed by the study findings, Chamie recommended the following, listed verbatim:

1. Increase engagement by OPM-4 Career Managers before the officer separates and continue throughout her break in service.
2. Re-brand the program to remove the policy's stigma as a "career killer" and send the clear message to participants: *We Want You Back.*
3. Increase OPM's flexibility to administer the program in ways that will increase returns to active duty and decrease permanent separations" (p. iv).

Other Relevant Analyses

Military Personnel Evaluations to Increase the Number of Female Officer Applicants (U.S. GAO, 2015)

The U.S. Government Accountability Office (GAO) reviewed all outreach and recruitment efforts of the Armed Forces aimed at increasing the number of women in the officer corps. It evaluated whether accessions had increased and whether the agencies have determined the resources needed to improve female officer accession rates. The GAO also reviewed related Department of Defense (DoD) and Coast Guard initiatives and recommended an oversight framework.

Methods

The GAO examined data such as budget justifications and Defense Manpower Data Center data for fiscal years 2010 through 2014. It also developed a questionnaire that was sent to 19 offices in the DoD and Coast Guard, including the U.S. Coast Guard Academy, the U.S. Personnel Service Center, and U.S. Coast Guard Recruiting Command. The GAO also reviewed other DoD branches in a performance audit in 2015.

Findings

The review found an accession increase of 6.4 percent for female officers in the Coast Guard—from 24 percent in 2010 to 30.4 percent in 2014. The Air Force has the next-highest accession rate at 27.4 percent. The authors asked the offices that they contacted

"how much was spent specifically on recruiting and advertising for women officers" and found funding and female recruiting resources were limited. In particular, the USCG Academy used travel expenditures for outreach to recruit at all-female high schools, but no specific programs for female recruitment existed. There have been a few related outreach initiatives for both female and males aside from "Everyone Is a Recruiter, Ambassadors" in the 1990s and the Academy Introductory Mission Program and Strategic Partnerships and Outreach in 2008.

The relevant findings from the GAO report were that the "DoD and Coast Guard offices could not identify how much was spent specifically for recruiting and advertising for women accessions because their budgeting was not reported by gender" (p. 13), and they had "not determined the resources and funding to increase the recruitment and, ultimately the accessions, of women into the officer corps" (p. 12). Also, there was no "oversight framework that includes (1) program goals; (2) performance measures linked to program goals to measure progress toward achieving those goals; and (3) resource allocation linked to program goals" (p. 18).

Recommendations

The GAO recommended that the "Coast Guard develop an oversight framework and conduct evaluations for initiatives" and manage relevant initiatives in the framework with the following considerations, listed verbatim:

- Service-wide program goals for initiatives directed at female officers' recruitment, such as goals related to the composition of the applicant pool
- Performance measures linked to program goals
- Resource allocations linked to program goals (p. 23).

The study notes that DHS reviewed and agreed with these recommendations and would take related actions.

Organizational Assessments (U.S. OPM, 2010, 2012, 2014)

Three organizational assessments of the Coast Guard were conducted by the Office of Personnel Management (OPM) in 2010, 2012, and 2014.

Methods

OPM conducted an internet survey of all Coast Guard members and employees, with participation rates between 25,000 and 30,000 for each survey conducted. The female sample for each survey was around 18 percent. The main research questions varied across the surveys but included items on the work environment, job satisfaction, links between career advancement and gender and race, and meaningful effects of affiliation, unit type, gender, race/ethnicity, and rank/supervisory level. The survey also asked, "Does gender influence the work environment perceptions of those Coast

Guard members who said they were considering leaving the Coast Guard versus those who are not considering leaving the Coast Guard?"

Findings

There are many findings in the assessments, but some relevant results and findings from the most recent assessment in 2014 are the following:

- Women had consistently higher rates than men among members indicating that they intended to leave the Coast Guard.
- For the dimensions Communication and Rewards/Recognition, women's ratings were at least 20 percent lower than men's.
- Different career points influenced perceptions; for example, enlisted female leavers with two to three years of service had significantly less positive perceptions of the dimensions Innovation, Fairness/Treatment of Others, Communication, Employee Involvement, Work and Family/Personal Life, Teamwork, Readiness to Reshape the Workforce and Performance Measures, along with less Job Satisfaction and Satisfaction with the Coast Guard. Female officers who were leaving either did not differ significantly from male leavers or had more positive perceptions of areas such as Training, Customer Orientation, and Performance Measures, along with Satisfaction with the CG. Women with eight to ten years of service—both leavers and stayers—generally had more favorable perceptions of critical areas of the Coast Guard than men did.
- Men rated the Coast Guard work environment more favorably than women did in Fairness and Treatment of Others, Communication, Employee Involvement, Teamwork, Training/Career Development, and Diversity.

Recommendations

The latest assessment (U.S. OPM, 2014) indicated, "The Coast Guard should be concerned about the lower ratings of Fairness and Treatment of Others and Diversity by women and minority groups" (p. 209), and recommended using focus groups or interviews to connect with groups reporting turnover intentions so that targeted interventions can be developed and implemented. To counter the "vast differences in how both men and women across different demographic groups experience the Coast Guard's climate around sexual assault and harassment," the assessment suggests "active monitoring, prevention, and accountability practices" and equipping unit commanders and Coast Guard leaders "with the training, data, and support to take action" to improve the climate (p. 209).

Defense Advisory Committee on Women in the Services (DACOWITS) (Corbo et al., 2017)

In 2017, DACOWITS released the *Focus Group Report: Defense Advisory Committee on Women in the Services* based on discussions with women across different military

services, including the Coast Guard. The main topics were the propensity to serve, recruitment, mid-career retention, child care, parental leave, retirement, and gender integration.

Methods

Findings and recommendations came from qualitative and quantitative analyses of data from over 300 participants, 7 percent of whom were in the Coast Guard.

Findings

The results are not reported by branch of service, but generally speaking, the research findings that are relevant to this study indicated that women considered educational opportunities as important when joining. Personal matters for retention related to balancing family and career, and the benefits available to manage family life were important. Among other retention factors, participants placed high importance on career progression, promotion, training, leadership, and development, as well as recognition and valuation of their skills by others.

Parental leave was highly valued, but the research found the ability to take leave varied because of factors such as unit size, rank, and position; women taking leave also experienced negative impacts in the workplace. Referring to BRS, the study found that "many participants believed this change to the retirement policy could affect the propensity to serve, and they held mixed expectations about the outcome. Several thought the new retirement plan might discourage enlistment, whereas others thought the plan might encourage more people to join" (p. 25). Many participants emphasized the importance of DoD child care and highlighted that often there is not adequate care. Finally, participants found gender integration important, but women noted respect was not always given by male colleagues and leaders. There were also concerns about sexual harassment and assault.

Recommendations

While the report did not make specific recommendations, the authors noted several suggestions made by their study participants. Participants recommended that recruiters more clearly explain career options, including education opportunities. The authors noted that participants recommended more flexibility in work-life balance, more cross-training, pay raises, and alignment of tasks and job training. Other suggestions included increasing leave, revising policies to allow more flexibility for leave, and considering how to fill billets while someone is on leave. They also recommended extended hours and capacity for child care development centers (CDCs).

Conclusion

Table A.1 shows those Coast Guard-specific studies that also had themes or topic areas identified in our study as key retention factors.[1]

Table A.1
How This Study's Findings Align with Those of Other Coast Guard Studies

Findings from the HSOAC Study	Studies Specific to the Coast Guard					
	Study of Women in the Coast Guard (1990)	The Coast Guard as a 21st-Century Employer of Choice (2016)	Duty to People: Retaining Coast Guard Women (2017)	Career Intentions Survey (CIS) (2017)	Women's Retention Crowd-sourcing Report (2018)	Breastfeeding and Work-Related Travel Memorandum (2016)
Work environment						
Leadership	✓	✓	✓	✓	✓	
Gender bias and discrimination	✓	✓	✓	✓	✓	
Sex harassment and assault	✓		✓	✓	✓	
Workload and resource issues			✓			
Weight standards	✓				✓	
Career						
Advancement	✓	✓	✓	✓	✓	
Assignments	✓	✓	✓	✓	✓	✓
Civilian opportunities		✓	✓			
Family/Personal						
Balancing family and career	✓	✓	✓	✓	✓	✓
Civilian spouse	✓		✓			
Active-duty spouse	✓	✓	✓			
Children	✓		✓			
Pregnancy and breastfeeding	✓	✓	✓			✓

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[1]   Note, we do not include studies that did not correspond with one of the key retention factors we identified (e.g., we do not include the report on TEMPSEP as this was not a key retention factor).

Overview of Focus Group Participants

All active-duty members were eligible to participate in the study. To encourage participation, women and men in the surrounding area of the designated locations (men were only included in three locations) were sent an email asking for voluntary participation in the focus groups. Additionally, the Coast Guard issued an all Coast Guard (ALCOAST) message informing all members about the study and providing contact information for interested members to reach out and inquire about focus group participation. Designated Coast Guard local points of contact at each location also helped to advertise the study and encourage volunteers to participate in the focus groups. Across the ten locations, we held a total of 164 female focus groups with 1,010 participants and 27 male focus groups with 127 participants.[1] At the end of each focus group, participants were asked to fill out background sheets that asked about their paygrade, rating/specialty, education level, marital status, spousal status, and parental status. The responses from these background sheets were compiled, and Figures B.1 to B.10 summarize these data.

Figure B.1 contains the male and female breakdown across all focus groups by officer, enlisted, and warrant officer status. Warrant officers were able to choose if they felt more comfortable participating in an enlisted group or officer group.

Figure B.2 shows the distribution of paygrades across female (red) and male (blue) focus groups. All paygrades E-2 through O-6 were represented. Although not included in Figure B.2, we also held one-on-one interviews with a handful of flag officers to provide additional insight.

Figure B.3 shows the number of female (red) and male (blue) participants by location. Note that Base Portsmouth, Base Alameda, and Coast Guard Headquarters (Washington, D.C.) were our only three locations in which we conducted male focus groups.

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[1] So that we could conduct the focus groups within the time line and resources of the study, participation was capped at 170 participants per gender for each location. For those locations in which interest in participating exceeded this cap, we placed participants on a waitlist and contacted them if space became available.

Figure B.1
Focus Group Participants by Corps

Male (n = 127)
27 focus groups

10

33

84

Enlisted
Officer
Warrant

Female (n = 1010)
164 focus groups

24%

398

588
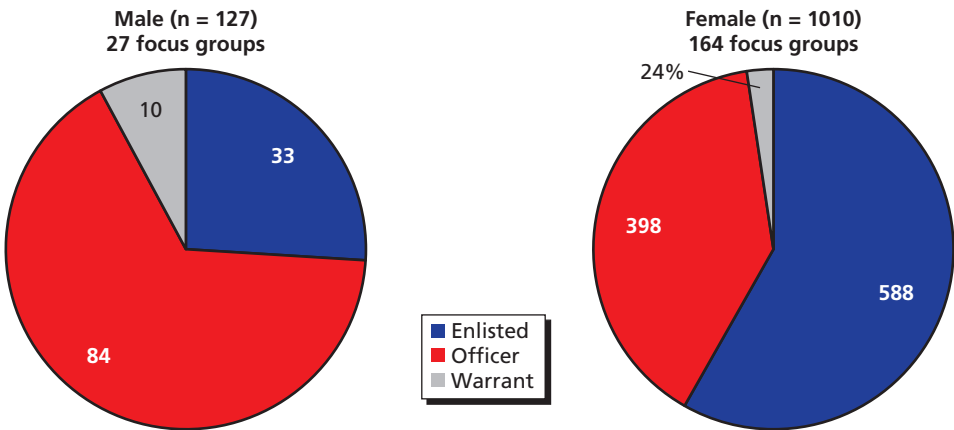
Figure B.2
Focus Group Participants by Paygrade
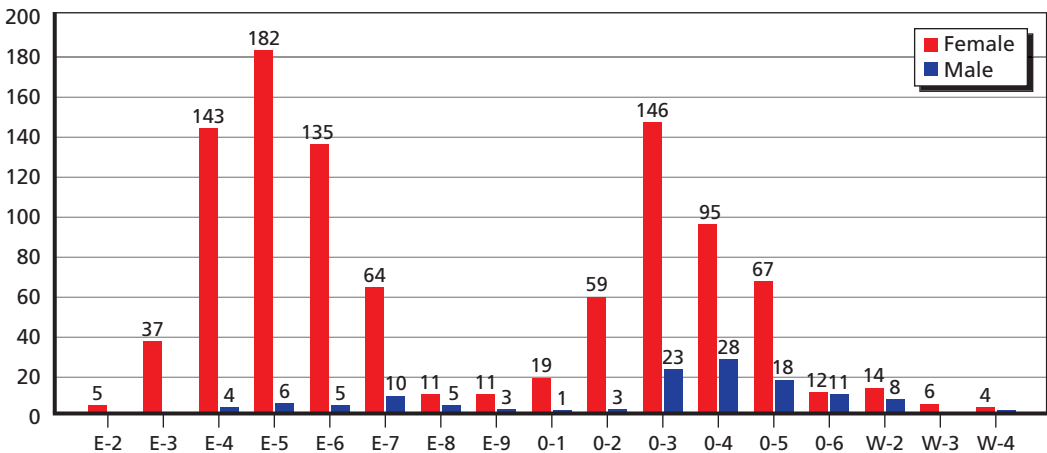
Figures B.4 and B.5 show the variety of officer specialties and enlisted ratings that were represented in our focus groups. For officers, the majority of participants were in Response Ashore, Prevention Ashore, or Afloat specialties. For enlisted members, the most represented rating was yeoman (YN), with 123 participants identifying with this rating. Storekeeper (SK), operations specialist (OS), marine science technician (MST), and boatswain's mate (BM) also had more than 50 participants each.

Figure B.3
Number of Focus Group Participants by Location
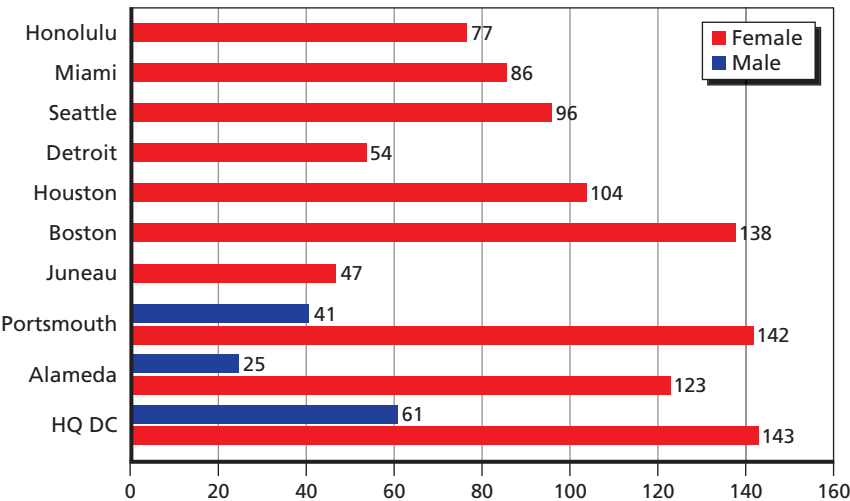
Figure B.4
Officer Focus Group Participants by Specialty
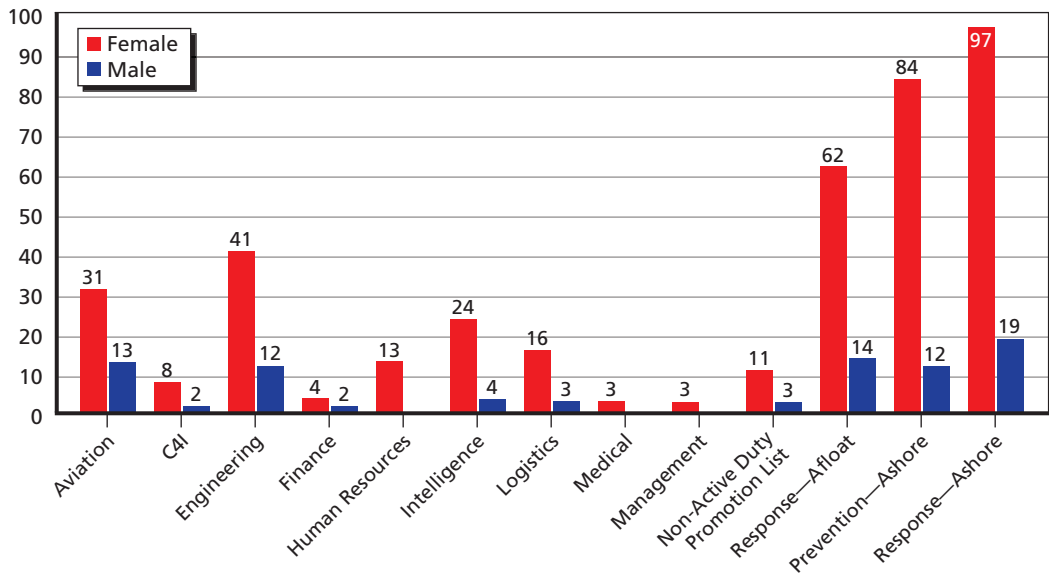
Figure B.5
Enlisted Focus Group Participants by Rating
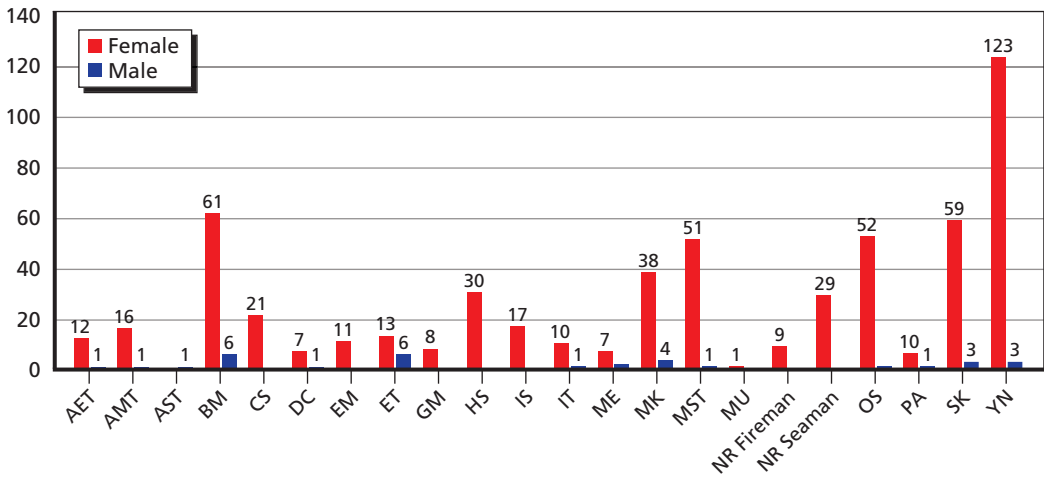
KEY: AET = Avionics Electrical Technician; AMT = Aviation Maintenance Technician; AST = Aviation Survival Technician; BM = Boatswain's Mate; CS = Culinary Specialist; DC = Damage Controlman; EM = Electrician's Mate; ET = Electronics Technician; GM = Gunner's Mate; HS = Health Services Technician; IS = Intelligence Specialist; IT = Information System Technician; ME = Maritime Law Enforcement Specialist; MK = Machinery Technician; MST = Marine Science Technician; MU = Musician; NR = Non-rate; OS = Operations Specialist; PA = Public Affairs Specialist; SK = Storekeeper; YN = Yeoman.

Figures B.6 and B.7 show the marital status and spousal military status (i.e., civilian, military member, Coast Guard member) of focus group participants. Among the participants who were married, 60 percent of male respondents were married to civilians, compared with only 25 percent of females who were married to civilians. The plurality of females—47 percent—were married to active-duty Coast Guard members.

Figure B.6
Focus Group Participant Marital Status
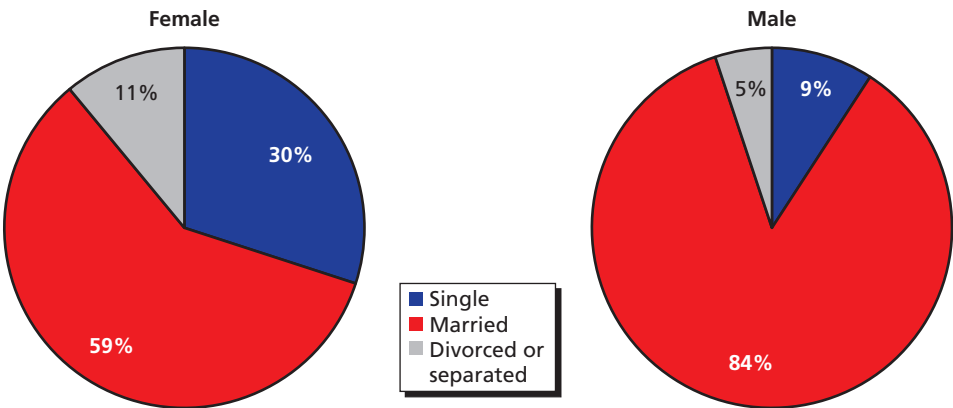
NOTE: Percentages do not total 100; not all respondents answered this background question.

Figure B.7
Focus Group Participant Spousal Military Status
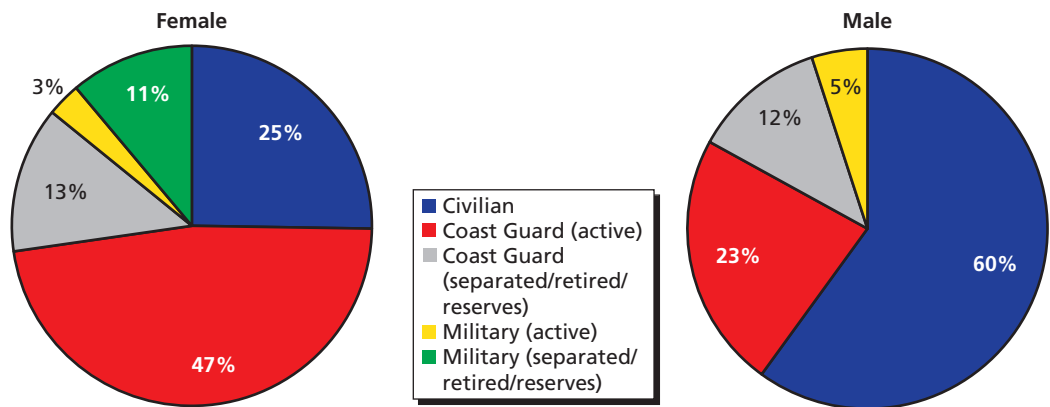
Female

- Civilian
- Coast Guard (active)
- Coast Guard (separated/retired/reserves)
- Military (active)
- Military (separated/retired/reserves)

3% | 11% | 25% | 13% | 47%

Male

5% | 12% | 23% | 60%

NOTE: Percentages do not total 100; not all respondents answered this background question.

Figure B.8 shows the parental status of the focus group participants. The majority of male focus group participants (81 percent) identified as having children, whereas only 45 percent of female participants identified as having children.

Figure B.8
Focus Group Participant Parental Status

Female

45% | 55%

- Has children
- Does not have children

Male

19% | 81%
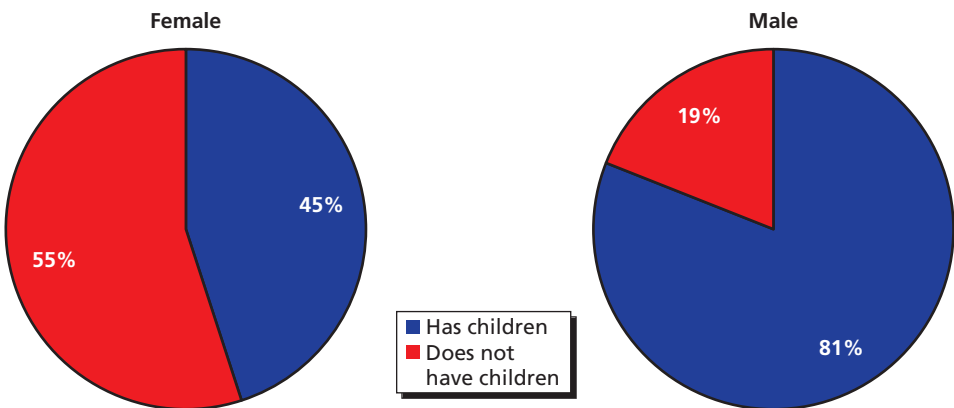
Finally, Figures B.9 and B.10 show the education breakdown for focus group participants. Education levels among respondents were somewhat even between females and males; the biggest differences were between officer and enlisted participants.

Figure B.9
Focus Group Participant Highest Education Level, Females

Female Officers

Female Enlisted

Graduate school
College graduate
Some college
High school
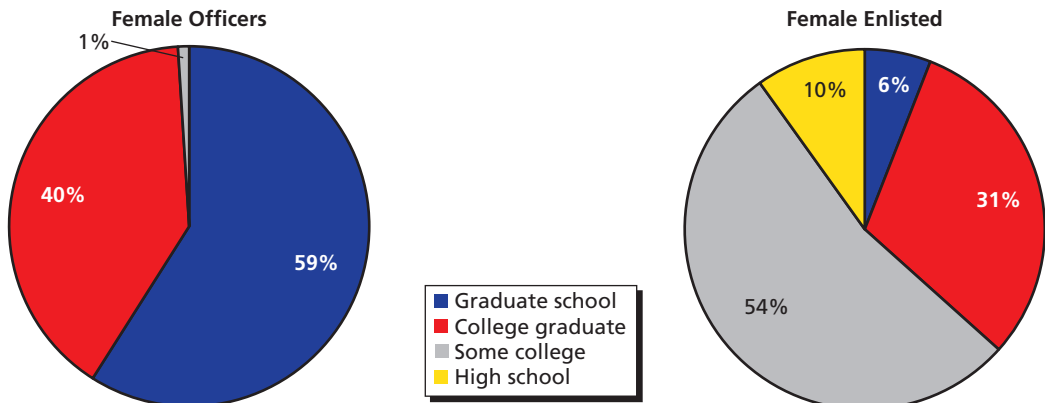
NOTE: Percentages do not total 100 due to rounding.

Figure B.10
Focus Group Participant Highest Education Level, Males

Male Officers

Male Enlisted

Graduate school
College graduate
Some college
High school
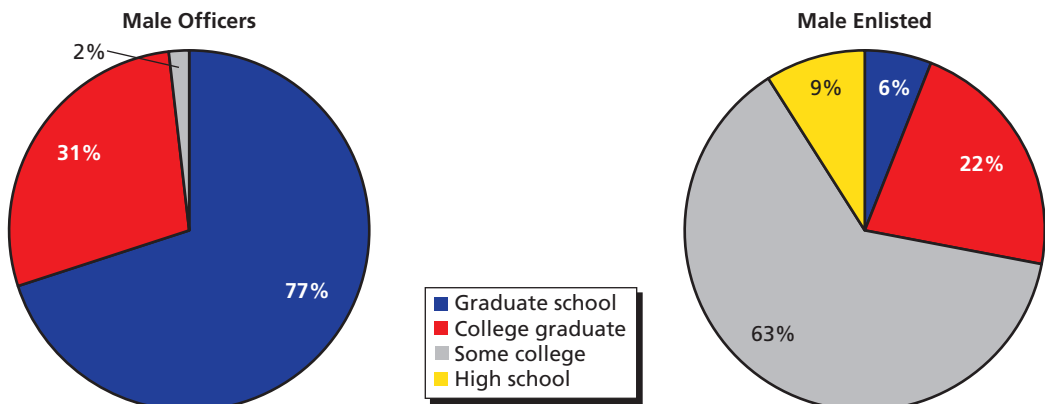
Focus Group Protocols

Protocol for Focus Groups with Female Members

Provide Study Overview and Administer Consent

General Background Questions

1. We are first going to begin with questions regarding the characteristics of this group.

[*Facilitator Note: Go around the group and ask each individual to respond to the four questions below.*]

- What is your current rank? [**may want to provide examples, such as E-4 or E-5 as a reminder to participants that we want rank and not just specialty/rating*]
- What is your primary specialty [officers] / rating [enlisted]?
- How many years of service have you provided since enlisting/commissioning?
- How many months or years do you have remaining on your current service obligation?

[*Facilitator Note: Ask people to raise hands for the following question and then ask follow-up probes as needed.*]

- Do you currently intend to remain in the Coast Guard for 20 years or more?
  - For those who do not intend to remain in the Coast Guard:
    - Do you have a separation date?
    - Are you planning to remain affiliated with the Coast Guard by serving in the Reserves?

Career Choices
[*Facilitator Note: Starting with this section, you should open up the remainder of questions to the group instead of requiring each participant to respond; a good way to transition to this is to tell the group that you now want to open the questioning up to the group as a whole and ask some general questions on career choices and anyone who wants to respond should feel free to do so.*]

2. What factors did you, or if you don't have a specialty [officers] / rate [enlisted] yet, are you considering when choosing your primary specialty [officers] / rating [enlisted]?
    • Have you changed specialties [officers] or rates [enlisted] in your career? If so, why?

3. To what extent do you or did you consider senior leadership / senior enlisted leadership to be one of your career goals? Why?

[*Facilitator Note: Enlisted members may discuss this in relation to Officer Candidate School (OCS) or the warrant officer track, which is fine for them to do.*]

4. How would you describe the quality and amount of feedback you received about your career options and career potential in the Coast Guard?

Retention Factors [*Need to start this section by 30 minutes or less into the focus groups)

We are interested in hearing about your own personal thoughts with regard to your career as well as what you know regarding reasons your fellow peers have chosen to stay or leave.

5. In general, what factors do you think contribute to women leaving the Coast Guard earlier in their careers than men?

[*Facilitator Note: Ask questions 6 and 7, including their probes, in whatever order best flows from the factors described in question 5.*]

6. How do personal matters or family influence women's decisions regarding how long to stay in the Coast Guard?
    • *Probes:*
        – For those of you with spouses or partners, how do spouses/partners influence decisions regarding staying in or leaving the Coast Guard? How, if at all, does compatibility of one's career with their spouse's career influence decisions?
        – How do children influence women's decisions regarding staying in or leaving the Coast Guard?
        – How does number of deployments/transfers influence women's decisions regarding staying in or leaving the Coast Guard?

7. How do elements of their Coast Guard career and work environment influence women's decisions regarding how long to stay in the Coast Guard?
    • *Probes:*
        – How, if at all, does leadership, such as immediate leadership or leadership at unit level, influence women's decisions regarding staying in or leaving the Coast Guard?

– Are there characteristics of your specialty [officers] / rating [enlisted] that may contribute to women deciding to leave the Coast Guard? If so, what are these?

– How, if at all, do you think the gender composition of a unit influences women's experiences and decisions regarding staying in or leaving the Coast Guard?

8. How might the Coast Guard better assist women with these career and work environment elements and family-related or personal matters that you've mentioned as influencing women's decisions regarding staying in or leaving the Coast Guard?

9. What changes to or additional Coast Guard benefits, programs, or policies would lead women to further consider remaining in the Coast Guard beyond their initial obligation?

[*Facilitator Note: The below questions need to be asked, but do not spend a significant amount of time on them.*]

- *Now I'd like to ask about some specific Coast Guard programs and benefits and any influence they may have on retention decisions.*
  – Are you aware of the Coast Guard Temporary Separation (TEMPSEP) program? If so, how do you think this program might influence decisions to stay in or leave the Coast Guard?
  – Are you aware of the Coast Guard educational opportunities and benefits (i.e., TA and G.I. and [Post-9/11] Bill)? If so, how do you think these benefits might influence decisions to stay in or leave the Coast Guard?
  – Are you aware of the Blended Retirement System changes to Coast Guard retirement benefits? If so, how do you think these changes might influence decisions to stay in or leave the Coast Guard?

10. What factors have contributed or would contribute to you staying in your Coast Guard careers?

11. The previous questions focused on your experiences as a woman in the Coast Guard. As a comparison, what factors do you think contribute to men's decisions to stay in or leave the Coast Guard?

Closing Questions
I'd now like to ask you a couple of final questions to wrap up the discussion.

12. We've discussed a number of factors that influence decisions to stay in or leave the Coast Guard. What would be your number one factor or "deal breaker" that would cause you to separate from the Coast Guard?

13. Finally, do you have any additional suggestions for changes that can be made that could improve the Coast Guard's ability to retain women or to improve the career and working environment more generally? Any other final thoughts?

Protocol for Focus Group with Male Coast Guard Members

Provide Study Overview and Administer Consent

General Background Questions

1. We are first going to begin with questions regarding the characteristics of this group.

[*Facilitator Note: Go around the group and ask each individual to respond to the four questions below.*]

- What is your current rank? [*may want to provide examples, such as E-4 or E-5 as a reminder to participants that we want rank and not just specialty/rating*]
- What is your primary specialty [officers] / rating [enlisted]?
- How many years of service have you provided since enlisting/commissioning?
- How many months or years do you have remaining on your current service obligation?

[*Facilitator Note: Ask people to raise hands for the following question and then ask follow-up probes as needed.*]

- Do you currently intend to remain in the Coast Guard for 20 years or more?
  - For those who do not intend to remain in the Coast Guard:
    ◦ Do you have a separation date?
    ◦ Are you planning to remain affiliated with the Coast Guard by serving in the Reserves?

Career Choices
[*Facilitator Note: Starting with this section, you should open up the remainder of questions to the group instead of requiring each participant to respond; a good way to transition to this is to tell the group that you now want to open the questioning up to the group as a whole and ask some general questions on career choices and anyone who wants to respond should feel free to do so.*]

2. What factors <u>did</u> you, or if you don't have a specialty [officers] / rate [enlisted] yet, <u>are you considering</u> when choosing your primary specialty [officers] / rating [enlisted]?
   - Have you changed specialties [officers] or rates [enlisted] in your career? If so, why?

3. To what extent do you or did you consider senior leadership/senior enlisted leadership to be one of your career goals? Why? [*Facilitator Note: Enlisted members may discuss this in relation to OCS or the warrant officer track, which is fine for them to do.*]

4. How would you describe the quality and amount of feedback you received about your career options and career potential in the Coast Guard?

Retention Factors [*Need to start this section by 30 minutes or less into the focus groups]

We are interested in hearing about your own personal thoughts with regard to your career as well as what you know regarding reasons your fellow peers have chosen to stay or leave the Coast Guard.

5. In general, what factors do you think contribute to men deciding to leave the Coast Guard?

[*Facilitator Note: Ask questions 6 and 7, including their probes, in whatever order best flows from the factors described in question 5.*]

6. How do personal matters or family influence men's decisions regarding how long to stay in the Coast Guard?
   • *Probes:*
     – For those of you with spouses or partners, how do spouses/partners influence decisions regarding staying in or leaving the Coast Guard? How, if at all, does compatibility of one's career with their spouse's career influence decisions?
     – How do children influence men's decisions regarding staying in or leaving the Coast Guard?
     – How does number of deployments/transfers influence men's decisions regarding staying in or leaving the Coast Guard?

7. How do elements of their Coast Guard career and work environment influence men's decisions regarding how long to stay in the Coast Guard?
   • *Probes:*
     – How, if at all, does leadership, such as immediate leadership or leadership at unit level, influence men's decisions regarding staying in or leaving the Coast Guard?
     – Are there characteristics of your specialty [officers] / rating [enlisted] that may contribute to men deciding to leave the Coast Guard? If so, what are these?
     – How, if at all, do you think the gender composition of a unit influences men's experiences and decisions regarding staying in or leaving the Coast Guard?

8. How might the Coast Guard better assist with these career and work environment elements and family-related or personal matters that you've mentioned as influencing men's decisions regarding staying in or leaving the Coast Guard?

9. What changes to or additional Coast Guard benefits, programs, or policies would lead men to further consider remaining in the Coast Guard beyond their initial obligation?

[*Facilitator Note: The below questions need to be asked, but do not spend a significant amount of time on them.*]

- Now I'd like to ask about some specific Coast Guard programs and benefits and any influence they may have on retention decisions.
  - Are you aware of the Coast Guard Temporary Separation (TEMPSEP) program? If so, how do you think this program might influence decisions to stay in or leave the Coast Guard?
  - Are you aware of the Coast Guard educational opportunities and benefits (i.e., TA and G.I. and [Post-9/11] Bill)? If so, how do you think these benefits might influence decisions to stay in or leave the Coast Guard?
  - Are you aware of the Blended Retirement System changes to Coast Guard retirement benefits? If so, how do you think these changes might influence decisions to stay in or leave the Coast Guard?

10. We've discussed a lot of factors that might influence men to <u>leave</u> the Coast Guard. What factors have contributed or would contribute to you <u>staying</u> in your Coast Guard careers?

11. The previous questions focused on your experiences as a man in the Coast Guard. As a comparison, what factors do you think contribute to <u>women's decisions</u> to stay in or leave the Coast Guard?

Closing Questions

I'd now like to ask you a couple of final questions to wrap up the discussion.

12. We've discussed a number of factors that influence decisions to stay in or leave the Coast Guard. What would be your number-one factor or "deal breaker" that would cause you to separate from the Coast Guard?

13. Finally, do you have any additional suggestions for changes that can be made that could improve the Coast Guard's ability to retain men and women or to improve the career and working environment more generally? Any other final thoughts?

Background Information Sheet Provided for All Focus Group Participants

1. What is your current rank?

2. If you are an officer, what is your primary specialty?
    If you are enlisted, what is your primary rating?

3. What is the highest level of education you have completed?
    - High school
    - Some college
    - College graduate
    - Graduate school degree (e.g., law degree, master's degree, M.D., Ph.D.)

4. What is your marital status?
    - Single (never married)
    - Married
    - Divorced or separated
    - Widowed

5. If you are married, what is your spouse's military status?
    - Coast Guard, active
    - Coast Guard, separated/retired/Reserve
    - Military (not Coast Guard), active
    - Military (not Coast Guard), separated/retired/Reserve
    - Civilian, not a current or former military service member

6. Do you have children?
    - Yes
    - No

Qualitative Coding Approach and Coding Guide

At the completion of all focus groups with female and male Coast Guard members, we uploaded our detailed focus group notes, taken in transcript form, into NVivo, a qualitative data analysis software program. We maintained two separate NVivo analysis files, one for female focus groups and one for male focus groups. Research team members coded the focus group notes to identify key themes and trends using an integrated inductive and deductive approach.

For Phase One of coding, we developed a coding guide of high level codes derived primarily from the protocol questions. Research team members participating in Phase One coding met routinely and very frequently when beginning the coding process to ensure agreement on and common understanding of code definitions and how they should be applied to the focus group data. Throughout the Phase One coding process, if any code definitions became unclear, research team members met to resolve any discrepancies and promote coder consistency. In this phase, focus group transcripts were also coded based on focus group background information such as the location of the focus group and whether participants were officers or enlisted members. This allowed for the identification of trends by these group characteristics.

For Phase Two, the initial content coding completed in Phase One was divided between two research team members. These team members refined broader codes to develop more detailed coding and allow for the emergence of more granular themes. At the completion of Phase Two coding, we analyzed the coded content to reveal trends and key themes across the focus groups. Separate analyses were conducted for the female focus group data and the male focus group data. Finally, we compared findings from our analyses to identify common themes and trends across both genders and those that were unique to female Coast Guard members.

Coding Guides

Focus Group Characteristic Codes

To capture background characteristics of focus groups, coders will first code all text by focus group location and whether group participants were officers or enlisted members.

Content Codes

Once coders have coded all focus group notes to capture focus group characteristics, we will code the discussion text for content and themes. This coding will not focus on the individual participant level, but the discussion content in general. Code all text that addresses the topics as defined below. Make sure coded text captures enough of the discussion to provide necessary context for comments made. Corresponding protocol questions are provided for reference but coder should code text on each theme throughout the notes, not just in response to the corresponding protocol question. In many instances, a question may not specifically be asked because the theme emerged organically in the discussion.

Level 1 codes are the broadest codes, with levels 2, 3, 4, and 5 becoming increasingly specific with each level. Coders should code at the most specific level of code possible and do not need to code the associated broader code levels (indicated below). Code as many content codes as are relevant to the comment. For example, a comment about a mil-to-mil marriage being difficult because of child care issues and deployments should be coded as: mil-mil, child, and deploy.

Table D.1
Female Focus Groups Coding Guide

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
Background					Additional background questions of interest not captured in participant characteristics; code background on number of years served and number of years remaining at Level 1.	
	Remain 20 yrs				Notations of show of hands about intentions to stay in the Coast Guard for 20 years or more (and any related comments during the background question section).	"Do you currently intend to remain in USCG for at least 20 years?"
	Remain in RC				Notations of show of hands or other indicators about intentions to remain affiliated with the Coast Guard through the Reserves (and any related comments during the background question section).	"Are you planning to remain affiliated with USCG by serving in the Reserves?"
Career choices					Discussion of participant career choices and related comments (do not code Level 1).	
	Why chose/rating				Why or how participants chose their current primary specialty/career field, including why they joined the USCG. Consideration of changing specialty or rate.	"What factors did you, or if you don't have a specialty [officers]/ rate [enlisted] yet, are you considering when choosing your primary specialty [officers]/rating [enlisted]?" "Have you changed specialties [officers] or rates [enlisted] in your career? If so, why?"

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
	Senior leadership goals				Participant comments regarding their personal goals for senior leadership or lack thereof; do not code for comments on feedback they receive regarding command potential.	"To what extent do you or did you consider senior leadership to be one of your career goals? Why?"
	Career feedback				Comments regarding feedback received on career choice and CG career path in general. Includes pre- and post-commissioning feedback as well as formal and informal feedback. May also include discussion about guidance provided by mentors in addition to chain of command.	"How would you describe the quality and amount of feedback you received about your career options and career potential in CG?"
Retention factors					Factors that influence female retention. These should include comments about factors that negatively impact retention as well as positively. Also should include comments stated that a certain factor does not influence retention (do not code at Level 1).	Question 5 applies to all subcodes below.
	Family and personal life	Spouse			Generic factors of "family."	Questions 6, 6ai, 6aii, 6aiii apply to all subcodes below
					Spouse issues (e.g., spouse's career, marriage, divorce); do not code if talking about dating or finding someone to marry; that should go under the "other" code.	
			Civilian spouse*		Discussion of civilian spouse issues.	
			Colocation*		Discussion of issues related to colocation with military spouse.	
			Cultural expectations*		Any discussion of cultural/societal factors that didn't fit neatly into civ/mil spouse codes.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
			Military spouse*		Discussion of military spouse issues, excluding colocation.	
		Children			Issues related to children (e.g., CDC child care issues, separation issues), including wanting children or thinking about how having children may impact later retention.	
			Child care*		This includes any mention of CDC, child care, either facilities or nannies or any outside support.	
			Impacts of CG nature, deployment, PCS, colocation on children*		This includes mentions of colocation causing the mom to become stay-at-home. Generally, any mention of how deployment and changing locations negatively affects children and may cause moms to leave CG.	
			Responsi-bilities*		This includes any mention of "mommy duties," division of labor between parents, medical/school needs, spending time with children, etc.	
			Single mom*		Comments related to being a single mom in the Coast Guard.	
		Pregnancy			Issues related to being pregnant or timing of pregnancy (e.g., work limitations due to pregnancy or waiting to get pregnant because of deployments).	
			Breast-feeding*		Comments related to breastfeeding or pumping breastmilk.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
			Career impact*		Comments related to the impact being pregnant or taking maternity leave can have on advancement and careers; this includes comments on the impact of pregnancy on OER and EER ratings.	
			Parental leave*		Comments specifically related to the parental (i.e. maternity) leave policy.	
			Pregnancy bias/stigma*		Comments related to treatment once pregnant, including how women are viewed once they become pregnant (e.g., stigma that women get pregnant to get out of duties or are useless once pregnant).	
			Fertility issues*		Comments related to fertility issues or obtaining fertility treatments.	
		PCS and deployments			Comments related to frequency of PCS (transfers/moves) or deployments on family/ personal lives.	
		Other			Other comments about family or personal lives.	
			Health*		Comments focused on difficulties seeking medical care, particularly related to female-specific issues.	
			Parents, siblings, other family*		Comments related to wanting to be close to parents or other family members, dealing with elder care for family, and other extended family issues.	
			Single life*		Comments related to dating or being an unmarried Coast Guard member.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
			Social support and friendships*		Comments related to the importance of social support and friendships, including difficulties of developing these as a Coast Guard member.	Questions 7, 7ai, 7aii, 7aiii apply to all sub-codes below.
	Career and work environment	Leadership			Includes command climate.	
			Discrimination*		Leadership issues with pregnancy, gender, etc. Leadership taking an *active* or very clear role in discrimination. If it is discrimination by means of a lack of support, that just goes in the lack of action or support code.	
			Female leadership issues*		These include positive and negative stories about female leadership, the peculiarities of female leadership, and why female leadership is important.	
			Good leadership experience*		Stories or remarks about good leaders. Note: General comments about bad leadership remain in the main-level leadership code.	
			Lack of action or support*		Includes things like lack of support, failure to lead, failure to intervene in a serious situation...all leadership sins of omission.	
			Lack of training or qualification*		Comments about leaders having a lack of training, experience, or know-how needed to be effective.	
			Toxic leadership*		Comments about toxic leaders, disparaging remarks, egregious behavior from commanders, etc.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
			Unaware or unengaged leaders*		Comments about leaders not caring, not being engaged, or generally being unaware of issues in the unit, only caring about advancement, etc.	
		Rating or specialty specific			Comments about specific ratings or specialties, including references to communities (e.g., afloat community).	
		Gender composition			Impact of being the only woman or one of only a few women in a unit; effect of how many women are in the work environment compared with the number of men.	
		Sexual harassment or assault			Discussion of personal or peers' experiences with or concerns about sexual harassment or assault.	
		Weight standards			Comments about Coast Guard weight standards policies including stress related to meeting standards.	
		Bad assignment or location			Comments related to assignments or assignment locations that cause women to leave.	
		Outside work or education opportunities			Discussion of civilian work opportunities or education opportunities as reasons to leave the Coast Guard.	
		Gender discrimination/ stigma/bias			Discussion of experiences with gender discrimination, stigma, or bias related to gender.	
			Bias and stereotype*		Comments about gender bias and female stereotypes in the USCG work environment.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
			Inclusion and social support*		Comments related to struggles with being included in the workplace due to gender and issues with social support from other members.	
			Rumors or bullying*		Comments related to workplace rumors or bullying that female members experience.	
			Access, facilities, equipment*		Comments related to limitations to facilities, equipment, or other access issues related to gender.	
		Other female standards			Comments about other female-specific Coast Guard standards not including weight standards (e.g, hair, makeup).	
		Other			Other comments about work environment or career issues.	
			Advancement and evaluations*		Discussion of evaluations, marks, or promotions for women or for other personnel.	
			Benefits*		Remarks regarding pay and benefits.	
			Overworked or lack of resources*		Comments about lack of resources at work, too much work, lack of personal time, or work preventing personal development.	
#1 or deal breaker					Comments regarding top retention factor that would cause participants to leave the Coast Guard. (Always double code with a retention factor code.)	"What would be your number-one factor or deal breaker that would cause you to separate from the Coast Guard?

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
CG Improve-ments						"How might the Coast Guard better assist women with these career and work environment elements and family-related or personal matters that you've mentioned as influencing women's decisions regarding staying in or leaving the Coast Guard?"
	Family and personal life improvements				Comments about how the Coast Guard might better assist women with family-related or personal matters that affect women's decisions regarding staying in or leaving the Coast Guard.	
		Children			Comments about improvements related to children.	
		Colocation or geostability			Comments related to improvements to colocation or geostability.	
		Health			Comments about healthcare improvements.	
		Pregnancy			Comments related to improvements to pregnancy issues.	
		Relationships			Comments about improvements to personal relationship issues.	
	Career and work environment improvement				Comments about how the Coast Guard might better assist women with career and work environment elements that affect women's decisions regarding staying in or leaving the Coast Guard.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
		Accountability			Comments about increasing accountability related to female retention issues.	
		Afloat			Comments related to improving afloat issues.	
		Communication			Comments related to improving communication.	
		Diversity and inclusion			Comments related to diversity and inclusion improvements.	
		Leadership			Comments related to leadership improvements.	
		Promotion, advancement, assignment			Comments related to improvements to promotions, advancement, or assignments.	
		Sexual harassment and assault			Comments related to sexual harassment and assault improvements.	
		Weight standard revision			Comments related to revisions to the current weight standards policy.	
	Other improvement				Suggestions to improve female retention that are not related to family/personal life or career/work environment.	
Specific CG programs					Don't code at this level—code at the level of following cells.	Questions9, 9ai, 9aii, 9aiii: Comments about additional Coast Guard benefits, programs, or policies that would further affect retention, beyond initial considerations.

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
	TempSep				Discussion of the TEMPSEP program and any impacts on retention.	
	Educational opps and benefits				Discussion of Coast Guard educational opportunities and benefits and any impacts on retention.	
	Blended Retirement System				Discussion of the new Blended Retirement System and any impacts on retention.	
Reasons to stay					Comments about factors that contributed or would contribute to women staying in their Coast Guard careers.	"What factors have contributed or would contribute to you staying in your Coast Guard careers?"
	Mission or work				E.g., I like what I do or believe in the CG mission.	
	People				E.g., Other Coast Guard members, feelings of camaraderie.	
	Benefits				Discussion of Coast Guard benefits that influence members to stay.	
		Retirement*			Discussion of retirement benefits and influencing members to stay.	
		Healthcare*			Discussion of healthcare benefits and influencing members to stay.	
		Education*			Discussion of education benefits and influencing members to stay.	
	Other reasons to stay				Reasons to stay in the Coast Guard not captured by other codes.	

Table D.1—Continued

Level 1	Level 2	Level 3	Level 4	Level 5	Description	Corresponding Protocol Question
		Job security*			Comments about the job security or stability of a Coast Guard career as a reason to stay.	
		Female role model*			Comments related to staying in the Coast Guard to become a female role model for other members.	
Men's retention decisions					Comments about factors participants think impact men's retention decisions.	"The previous questions focused on your experiences as a woman in the Coast Guard. As a comparison, what factors do you think contribute to men's decisions to stay in or leave the Coast Guard?"
	FPL*				Comments related to men's family or personal lives.	
		Stay in to provide for family*			Discussion of men staying in the Coast Guard to provide income and benefits for their family.	
	CWE*				Comments related to men's career or work environment.	
For discussion					Use when unsure how a comment should be coded.	
Quote/ of note					Particularly pertinent comment or excellent quote. Use sparingly.	

Table D.2
Male Focus Groups Coding Guide

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
Background				Additional background questions of interest not captured in participant characteristics; code background on number of years served and number of years remaining at Level 1.	
	Remain 20 years			Notations of show of hands about intentions to stay in the Coast Guard for 20 years or more (and any related comments during the background question section).	"Do you currently intend to remain in USCG for at least 20 years?"
	Remain in RC			Notations of show of hands or other indicators about intentions to remain affiliated with the CG through the Reserves (and any related comments during the background question section).	"Are you planning to remain affiliated with USCG by serving in the Reserves?"
Career choices				Discussion of participant career choices and related comments (do not code Level 1).	
	Why chose/ rating			Why or how participants chose their current primary specialty/career field, including why they joined the USCG. Consideration of changing specialty or rate.	"What factors did you, or if you don't have a specialty [officers]/rate [enlisted] yet, are you considering when choosing your primary specialty [officers]/rating [enlisted]?" "Have you changed specialties [officers] or rates [enlisted] in your career? If so, why?"
	Senior leadership goals			Participant comments regarding their personal goals for senior leadership or lack thereof; do not code for comments on feedback they receive regarding command potential.	"To what extent do you or did you consider senior leadership to be one of your career goals? Why?"

Table D.2—Continued

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
	Career feedback			Comments regarding feedback received on career choice and CG career path in general. Includes pre- and postcommissioning feedback as well as formal and informal feedback. May also include discussion about guidance provided by mentors in addition to chain of command.	"How would you describe the quality and amount of feedback you received about your career options and career potential in CG?"
Retention factors				Factors that influence female retention. These should include comments about factors that negatively impact retention as well as positively. Also should include comments stated that a certain factor does not influence retention (do not code at Level 1).	Question 5 applies to all subcodes below.
	Family and personal life			Generic factors of "family."	Questions 6, 6ai, 6aii, 6aiii apply to all sub-codes below.
		Spouse		Spouse issues (e.g., spouse's career, marriage, divorce); do not code if talking about dating or finding someone to marry; that should go under the "other" code.	
			Military spouse*	Discussion of military spouse issues, excluding colocation.	
		Children		Issues related to children (e.g., CDC child care issues, separation issues), including wanting children or thinking about how having children may affect later retention.	
			Child care*	This includes any mention of CDC, child care, either facilities or nannies or any outside support.	
			Schools*	Comments related to children's schools.	

Table D.2—Continued

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
		PCS and deployments		Comments related to frequency of PCS (transfers/moves) or deployments on family/personal lives.	
		Other		Other comments about family and personal lives.	
			Parents, siblings, other family*	Comments related to wanting to be close to parents or other family members, dealing with elder care for family, and other extended family issues.	
			Single life*	Comments related to dating or being an unmarried Coast Guard member.	
Career and work environment					Questions 7, 7ai, 7aii, 7aiii apply to all sub-codes below.
		Leadership		Includes command climate.	
		Rating or specialty specific		Comments about specific ratings or specialties, including references to communities (e.g., afloat community).	
		Gender composition		Discussion of how gender composition of a unit can influence men's experiences and retention.	
		Bad assignment or location		Comments related to assignments or assignment locations that cause men to leave.	
		Outside work or education opportunities		Discussion of civilian work opportunities or education opportunities as reasons to leave the Coast Guard.	
		Other CWE		Other comments about work environment or career issues.	

Table D.2—Continued

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
			Advancement and evaluations*	Discussion of evaluations, marks, promotions for men or for other personnel.	
			Overworked or lack of resources*	Comments about lack of resources at work, too much work, lack of personal time, work preventing personal development.	
			Bureaucracy or military lifestyle*	Comments about the bureaucratic nature of the Coast Guard or military lifestyle.	
			Not using skills*	Comments related to not using skill sets on the job.	
	#1 or deal breaker			Comments regarding top retention factor that would cause participants to leave the Coast Guard. (Always double code with a retention factor code.)	"What would be your number-one factor or deal breaker that would cause you to separate from the Coast Guard?"
CG improvements					"How might the Coast Guard better assist men with these career and work environment elements and family-related or personal matters that you've mentioned as influencing men's decisions regarding staying in or leaving the Coast Guard?"
	Family and personal life improvements			Comments about how the Coast Guard might better assist men with family-related or personal matters that affect men's decisions regarding staying in or leaving the Coast Guard.	
		Child care*		Comments about child care improvements.	
		Colocation*		Comments about improvements to colocation issues.	

Table D.2—Continued

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
	Career and work environment improvement	Geographic stability*		Comments about improvements to geographic stability.	
				Comments about how the Coast Guard might better assist men with career and work environment elements that affect men's decisions regarding staying in or leaving the Coast Guard.	
		Advancement*		Comments about improvements to advancement.	
		Assignments*		Comments about improvements to assignments.	
		Resources*		Comments about improvements related to resources.	
		Leadership and mentoring*		Comments about improvements to leadership and mentoring.	
		Monetary incentives*		Comments about improvements to monetary incentives.	
		Female-specific*		Comments about improvements that are specific to female Coast Guard members.	
	Other improvement			Suggestions to improve male retention that are not related to family/personal life or career/work environment.	
Specific CG programs				Don't code at this level—code at the level of following cells.	Questions 9, 9ai, 9aii, 9aiii: Comments about additional Coast Guard benefits, programs, or policies that would further affect retention, beyond initial considerations.

Table D.2—Continued

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
	TempSep			Discussion of the TEMPSEP program and any impacts on retention.	
	Educational opps and benefits			Discussion of the Coast Guard educational opportunities and benefits and any impacts on retention.	
	Blended Retirement System			Discussion of the new Blended Retirement System and any impacts on retention.	
Reasons to stay				Comments about factors that contributed or would contribute to men staying in their Coast Guard careers.	"What factors have contributed or would contribute to you staying in your Coast Guard careers?"
	Mission or work			E.g., I like what I do or believe in the CG mission.	
	People			E.g., other Coast Guard members, feelings of camaraderie.	
	Benefits			Discussion of Coast Guard benefits that influence members to stay, including healthcare, retirement, etc.	
	Other reasons to stay			Other reasons to stay in the Coast Guard not captured by other codes.	
		Job security*		Comments about the job security or stability of a Coast Guard career as a reason to stay.	
Women's retention decisions				Comments about factors participants think impact WOMEN's retention decisions.	"The previous questions focused on your experiences as a man in the Coast Guard. As a comparison, what factors do you think contribute to women's decisions to stay in or leave the Coast Guard?"

Table D.2—Continued

Level 1	Level 2	Level 3	Level 4	Description	Corresponding Protocol Question
	FPL*			Discussion of factors related to family or personal lives.	
	CWE*			Discussion of factors related to career or work environment.	
	Special treatment*			Comments about women receiving special treatment in the Coast Guard.	
For discussion				Use when unsure how a comment should be coded.	
Quote/ of note				Particularly pertinent comment or excellent quote. Use sparingly.	

*Codes added for additional depth of analysis after conducting initial coding process.

Detailed Description of Data and Quantitative Methods

Chapter Four presented results from a quantitative analysis of the analytic data file compiled by linking data across a variety of sources. This appendix provides supplemental information on the variables included in the analyses and how they are defined, as well as further description of the quantitative methods used to generate the results.

Key Variables Included in the Analyses

This section briefly reviews the way we define retention and the specific fields in the data that we anticipate could be related to gender differences in retention.

Retention Outcomes

The most basic retention outcome we examine is technically known as *continuation*, which is simply whether or not a member is present in the active-duty force at some point in the future, conditional on being present at some initial point in time. Most of our descriptive analyses rely on simple annual continuation rates.[1]

Our findings in the descriptive analyses of continuation rates led us to further examine retention at specific early-career milestones, which include completion of the initial term of service, retention after the first decision point, and completion of a subsequent term of service (see Figure 4.3). For enlisted members, there is significant early attrition (some of which appears to stem from initial training), so we added an additional continuation gate at the two-year point. Furthermore, because enlisted members sign up for fixed periods of time, we can identify reenlistments—that is, whether a member signed up for a new contract on completion of his/her first contract.[2] Other

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[1] Given that there are gender differences in enlisted continuation rates during periods where members appear to be under contract, information on reasons for attrition would have been beneficial, but was unfortunately unavailable to our analysis.

[2] Prior studies analyzing reenlistment have suggested different approaches for dealing with short-term contract extensions (see Matthew S. Goldberg, "A Survey of Enlisted Retention: Models and Findings," Alexandria, Va.: CNA Corporation, CRM D0004085.A2, 2001; Asch, Miller, and Weinberger, 2016). Reenlistments and

than the initial commitment of five years, officers do not typically serve on a contract basis, so we based officer retention outcomes around fixed time points. Continuation through the six-year point, for instance, is meant to capture whether officers remain on active duty after their first decision point[3] (Fricker, 2002).

Military Contextual Characteristics

For enlisted members, we include years of service, grade, and ratings in our analysis. Based on discussions with subject matter experts, we grouped ratings into four general categories: non-rated, engineering, operations, and service/support. For officers, years of service is fixed given how we defined the outcomes; there is very little variation in grade, so the main military contextual characteristics we include are indicators for prior-enlisted status and whether the officer had been passed over for promotion to the next grade. Regarding occupations, Coast Guard officers are not easily binned into distinct specialties, with the exception of pilots, so the only occupational control the officer models include is an indicator of whether the member holds a pilot qualification. In each of our models, we account for unobserved factors that affect all members of a cohort by including indicators for the fiscal year in which a member entered active duty.

Family-Related Characteristics

An essential component of understanding gender differences in retention is to account for differences in family-related characteristics. In each of our models, we follow the precedent in Asch, Miller, and Weinberger (2016) and include an indicator for whether the member is married, along with indicators of the presence of children by age.

Cutter Deployments

A member's operational experience likely influences retention decisions in complex ways. Deployments could bring longer work hours and stress, or separation from family members, but also additional compensation to offset these negatives. Some amount of deployment could also be preferred by members (having freely decided to join the Coast Guard in the first place), and deployments could open doors to rewarding work and higher job satisfaction.[4]

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extensions are not differentiated in the personnel data, so we consider any contract of less than two years to be an extension, and we treat extensions as deferred reenlistment decisions.

[3]   Not all officers are eligible to leave after the five-year point. Importantly, pilots have additional service commitments tied to completion of flight training. Instead of attempting to defer their decision points, we chose to control for pilot qualifications and measure the contribution of these career-field specific factors to the gender gap.

[4]   Each of these factors is discussed in James Hosek and Paco Martorell, "How Have Deployments During the War on Terrorism Affected Reenlistment?" Santa Monica, Calif.: RAND Corporation, MG-873-OSD, 2009. They find nonhostile DoD deployments had a positive effect on reenlistment.

Our review of the relevant background research and focus group discussions further indicated that gender differences in ties to the afloat community could be relevant to retention gaps, and that differential assignments to the various classes of cutters could also be important. Therefore, we included variables capturing DAFHP (days away from home port), broken out by the major high-endurance cutters (378s and National Security Cutters [NSCs]), the most common medium-endurance cutters (210s and 270s), and other cutters. For the retention outcomes based on completion of specified terms, we recorded DAFHP cumulatively, as of the previous milestone. For the reenlistment (enlisted) and six-year retention (officer) outcomes, we calculated DAFHP in the three-year-window prior to the milestone.

Location of Most-Recent Assignment

Focus group findings suggest that there could be aspects of particular localities that affect female retention decisions. Specifically, some respondents indicated that assignment to remote locations creates additional burdens for female members, such as difficulty finding child care. We selected two measures of the areas surrounding each Operating Facility (OPFAC) from the American Community Survey that potentially relate to a locality's amenability to employment for women: population density and female labor force participation.

Mobility History

Prior studies of female retention in the Coast Guard suggested that the burdens associated with frequently moving to new locations could be important to gender differences in retention (Wirts and Johnson, 2016). However, moving could also be positively associated with retention if some members opt to remain in the Coast Guard specifically to pursue a desirable location or assignment. To account for differences in mobility history, we explored including the number of unique OPFACs that an individual had been assigned to at each decision point. However, multiple OPFACs are often colocated, making this an imperfect measure of how often a member has moved. Ultimately, we decided to exclude this variable from the analyses presented in the report.

Individual Background Characteristics

Finally, we attempted to account for any individual-specific characteristics that were available in the personnel data. These characteristics include Armed Forces Qualification Test (AFQT) scores for enlisted personnel, whether the member had an advanced degree at entry,[5] age at entry, and race/ethnicity. Furthermore, we included the per-

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[5]   Advanced degrees are defined as a B.A./B.S. degree or higher for enlisted, and an M.A./M.S. degree or higher for officers.

centage of each armed forces member's home of record as a proxy for personal ties to uniformed service.[6]

Methods for Understanding Gender Differences in Retention

This section describes the methods that we employ in the quantitative portion of our study. We intentionally keep this discussion of methods at a more intuitive level, but we provide citations that point interested readers to similar applications in recent studies with more methodological detail.

Descriptive Analysis
The descriptive portion of the analysis characterizes the gender differences in retention throughout the career life cycle, as well as the association between retention and select other characteristics. Any method for comparing retention across groups must cope with the fact that the most important determinant of retention is the career stage of the member; thus, retention rates are never directly comparable between groups unless career stage is adequately accounted for. One approach would be to look only within a *cohort*—a group of members who began at the same point in time—and measure retention at different career stages from entry through retirement. However, with only 12 years of complete records in the analytic file, it is not possible to track any cohorts of personnel through the length of an entire career. Instead, we calculate a loss rate for each year of service (YOS) and use these loss rates to construct full retention profiles. This method essentially combines the loss rates of younger members observed in the early portion of their careers with the rates of older members who are observed later in their careers.

Loss rates themselves are difficult to interpret because they do not show the combined impact of small consecutive gender differences over the course of a career. A useful visualization that solves this problem is to calculate cumulative continuation rates (CCRs), which show the percentage of people remaining (out of 100) after a given number of years (Figure E.1, panel 2).

CCRs are the best available way to show exactly where gender differences emerge in the career life cycle, but comparing multiple sets of curves can become unwieldy, so it is sometimes more convenient to relate other factors to retention through an aggregate measure. For this reason, we use the CCRs to calculate the average length of service implied by the retention curves (Figure E.1, panel 3). This provides a single measure of retention in a group, *which is still based on the same information contained in the original YOS-specific loss rates*. It sacrifices some resolution, to be sure, but with the

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[6] A large portion of officers did not have a valid zip code associated with their home of record, so we excluded this characteristic from the officer models.

Figure E.1
Options for Describing Gender Differences in Retention Present in Year-of-Service-Specific Loss Rates
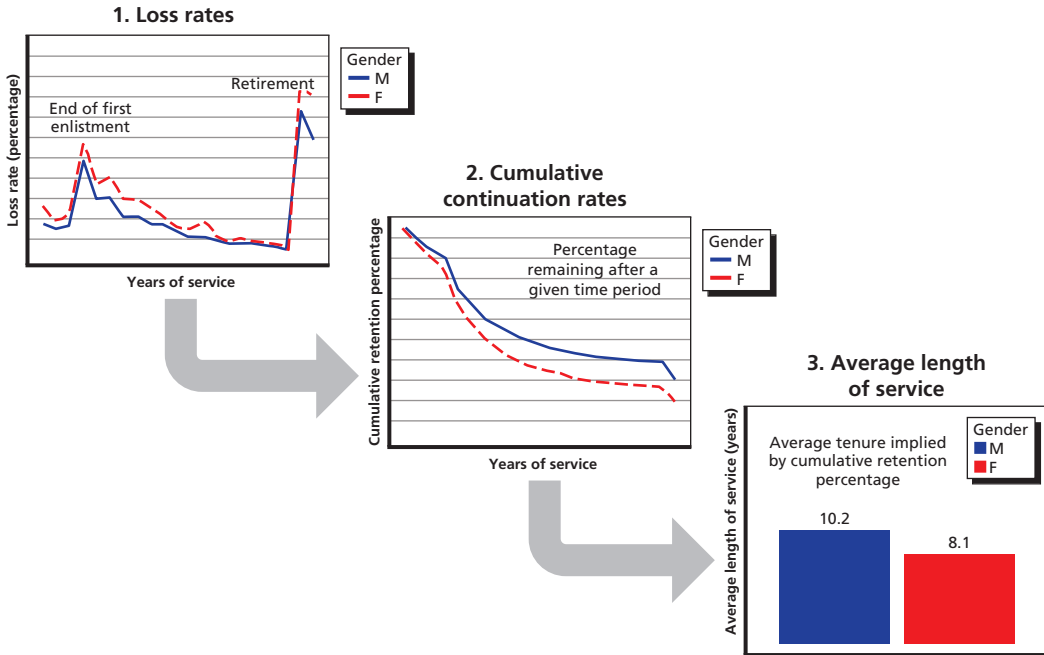
benefit of being much more directly interpretable. The descriptive analysis uses CCRs to summarize the gender differences in retention through the career life cycle and collapses the information to average service length in order to show gender-specific retention patterns for different occupational groups, for ashore versus afloat indicators, and for different family characteristics.

Blinder-Oaxaca Decomposition Analysis

Blinder-Oaxaca decompositions (Blinder, 1973; Oaxaca, 1973) are a useful tool for disentangling the influence of other characteristics from gender differences in outcomes. This type of analysis is becoming very common in studies examining potential barriers to diversity (e.g., see Asch, Miller, and Weinberger, 2016; Matthews et al., 2017). The decomposition method does the following:

1. It identifies the variables that are associated with retention among men and women using a regression model.
2. It calculates the portion of the gender gap in retention that is attributable to the lack of characteristics that are positively associated with retention (or the presence of characteristics that are negatively associated with retention).

3. It calculates the portion of the gender gap in retention that results from gender differences in the associations between retention and the characteristics.

The simplest and most intuitive form of the decomposition uses linear regression models for (1) and fits a separate regression for each gender. In a linear regression, the retention rate ($\bar{r}$) for each gender (denoted by the subscript g) equals the vector of average values of the characteristics ($\bar{X}$) multiplied by the gender-specific regression coefficients (β_g):

$$\bar{r}_g = \bar{X}_g \beta_g$$

Using a few algebraic transformations, the average difference in retention rates between the genders can be expressed as follows:

$$\bar{r}_m - \bar{r}_f = \bar{X}_m \beta_m - \bar{X}_f \beta_f = \left(\bar{X}_m - \bar{X}_f\right)\beta_m + \left(\beta_m - \beta_f\right)\bar{X}_f$$

Mathematically, (2) and (3) must add up to the original gender gap in the outcome. The estimates resulting from (2) and (3) have gone by a variety of names in past research, but it is common to refer to (2) as the "explained component," because it refers to the amount of the original gap potentially driven by the characteristics other than gender, while (3) is often denoted the "unexplained component" because the results suggest the characteristic influences the genders differently. Importantly, the unexplained component includes the baseline gender differences in retention that remain after accounting for all characteristics (i.e., the intercept terms in the regressions).

Naturally, the analyst's decision on how to measure the associations between the variables and retention influences which characteristics (if any) the decomposition attributes gender differences to. If relevant variables are omitted, the influence of the omitted factors could unintentionally be attributed to variables that are included and with which they are highly correlated. And the form of the regression model presents trade-offs—linear specifications are simpler to work with, but some argue that they are inappropriate for a binary outcome. Furthermore, the equation above assumes that the male coefficients should be used to calculate the explained component, but variations exist where one could use the coefficients from a pooled regression including both groups (Neumark, 1988) or, alternatively, any combination of the male and female coefficients (Oaxaca and Ransom, 1994).

Our main results calculate the explained component using the associations from a linear regression that pools men and women together. But, to ensure the findings were not sensitive to such specification decisions, we ran the same models using the male coef-

Table E.1
Explained and Unexplained Component Estimates for Alternative Specifications

	Specification		
	Reported Results	**Use Male Coefficients to Calculate the Explained Component**	**Logistic Regression Instead of Linear Probability Model**
Enlisted			
First-term continuation			
Explained	0.0213	0.0221	0.0199
Unexplained	0.0374	0.0365	0.0387
Reenlistment			
Explained	0.0384	0.0438	0.0385
Unexplained	0.0278	0.0224	0.0277
Second-term continuation			
Explained	0.0007	0.0025	−0.0010
Unexplained	0.0575	0.0558	0.0593
Officer			
Continue to 5 years			
Explained	0.0184	0.0187	0.0238
Unexplained	0.0082	0.0079	0.0074
Remain in 6th year			
Explained	0.0243	0.0223	0.0388
Unexplained	0.0401	0.0420	0.0509
Continue to 9 years			
Explained	0.0360	0.0335	—
Unexplained	0.0169	0.0194	—

NOTE: There was not enough data on female officers to fit an adequate logistic regression to the final officer milestone.

ficients and using a logistic regression rather than a linear regression.[7] Table E.1 shows that these variations would arrive at the same conclusions regarding the two components.

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[7]   It is possible to estimate a full detailed decomposition using logistic regression with a series of approximations proposed by Myeong-Su Yun, "Decomposing Differences in the First Moment," *Economics Letters*, Vol. 82, No. 2, February 2004, pp. 275–280.

Table E.2
Example of Hypotheses Predicting "Explained" Versus "Unexplained" Results

Characteristic	Example Hypothesis	Predicted Decomposition Result
Rating	Men are more likely than women to be in ratings characterized by relatively high retention.	A relatively high percentage of men serving in ratings that are correlated with retention means that rating is a contributor to the *explained component.*
Mobility	Frequent moving is especially burdensome to women, because male civilian spouses are more likely to work and/or face limitations in job mobility.	The relationship between mobility and retention should be more negative for women than for men, producing a significant contribution to the *unexplained component.*

We focus most of our results discussion on the explained component. However, informative findings could emerge on the "unexplained" side, and thus it will help to illustrate the expected decomposition results of different types of hypotheses. Table E.2 lists a sample hypothesis that predicts a portion of the gap would be explained by the quantitative factors, along with a sample hypothesis that would yield an unexplained result. The key is that any hypothesis that posits that the gap is due to a higher or lower tendency of women to possess certain characteristics should emerge in the explained component, while hypotheses that suggest a characteristic has a unique impact on women should emerge in the unexplained component.

Finally, it is important to distinguish between the correlations undergirding the decompositions and the true causal effects of these quantitative factors on retention. Members might have some control over their circumstances and can sort themselves according to their preferences, which often creates correlations in the opposite direction of what one would expect. Frequent moving, for instance, is typically regarded as a burden associated with service in the armed forces. However, additional moves tend to *positively* correlate with retention in the personnel data, likely because those who intend to stay continue to accept new assignments as they near their decision points while those who intend to leave do not. Readers should interpret the results, then, as potential indicators of the general areas of importance to gender retention differences, rather than as the estimated improvement in retention that would result from a policy change in a given area.

Stock-and-Flow Workforce Inventory Model of the Active-Duty Force

Insights from the descriptive and decomposition analyses are still somewhat limited by how we have specified the outcomes, as they can only speak to retention probabilities (or percentages). This information often falls short of what is most relevant to policymakers, who are typically more focused on the level of female representation and equities in career progression.

To explore the impact of gender retention differences on the long-run Coast Guard workforce, we constructed a stock-and-flow inventory model of the active-duty

force. Stock-and-flow models start with the inventory of personnel in a given year and project the workforce forward using estimated flows (Nataraj et al., 2014). For example, members flow out of the active-duty force by separating and new members flow in as accessions. Such models are useful for near-term workforce planning, as they can project the supply of workers under expected retention profiles to inform recruiting decisions. Alternative applications also use stock-and-flow models to reveal the long-run implications of current patterns projected into perpetuity. Known as a *steady-state* analysis, the latter approach is especially useful in the current application as the impact of changes to female retention patterns would play out over a longer period of time (Robbert et al., 2015).

For our workforce model, we are primarily interested in two questions: (1) How does relatively low female retention affect long-run representation levels and (2) how does early-career female retention affect the supply of women available to progress to the higher ranks? To examine these questions, we designed the workforce model to begin with the inventory of personnel by gender, YOS, and grade category.[8] Then, the model proceeds in the following way:

1. Multiply the inventories by annual loss rates and subtract losses from the inventories.
2. Transition personnel to new grades, according to historical promotion rates.
3. "Age" active-duty personnel by one YOS.
4. Replace losses with new accessions, which are assigned to genders according to historical proportions.

After several years of repeating this process, such models typically tend toward an equilibrium where the workforce makeup changes only slightly from year-to-year. For this reason, this long-run equilibrium will be the primary focus of our results.

Our workforce model has several key limitations. Personnel are aggregated at a fairly high level, so the model cannot yield insights into particular subgroups (functional communities, for example). The model is deterministic and assumes parameters such as loss rates are fixed and thus cannot account for uncertainty. We set new accessions to exactly equal losses for expediency, but this not in line with real-world practice. And finally, grade transitions proceed according to historical rates and therefore are not driven by vacancies in any way.[9] There are certainly techniques that can overcome

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[8]   The enlisted grade categories include non-rate (E-1 through E-3), junior enlisted (E-4 through E-6), and senior enlisted (E-7 and above). The officer categories include junior officer (O1–O2), mid-grade officer (O3–O4), and senior officer (O-5 and above).

[9]   Furthermore, because new accessions are set equal to losses in each year, we could not allow enlisted-to-officer transitions, because this caused the officer corps to grow over time. Instead, we considered enlisted-to-officer transitions as losses to the enlisted force and sustained the officer corps solely through new accessions.

these limitations, and future work could build on this initial step according to research goals and priorities.

Retention Scenarios

We use the workforce model to examine the workforce impacts of three retention scenarios compared with a baseline scenario using historical loss rates from FY06 through FY16. The first scenario, denoted "equalized retention," captures the total impact of relatively low female retention by removing all retention differences in the model (i.e., setting the female retention rates equal to the male rates for each personnel category). Beyond this scenario, we also chose to explore the impact of particular characteristics based on the decomposition findings. DAFHP owing to cutter deployments significantly related to enlisted retention differences, while gender differences in pilot qualifications significantly related to officer retention differences. Thus, we created an "operations scenario" focused on these two attributes. Family-related characteristics also significantly related to gaps, so we created a "family scenario" that adjusted these factors.

To create alternative retention profiles for the women in the model, we sought a method that could change the characteristics in the female population without making strict modeling assumptions about how all the characteristics relate to retention. We used a method first explored in Lim et al. (2014), where we assign *importance weights* to the women in the data and calculate a weighted loss rate for each year of service.[10] To simplify the calculation, we created categorical variables for each feature so that the importance weight is just the male proportion in the category divided by the female proportion. Multiplying the female values by these weights in any calculation creates an adjusted female population with the same proportions of DAFHP, pilots, married members, or members with children as the male population.

Pilot qualifications, marital status, and the presence of children are already categorical variables. For deployments, the decomposition results suggested that differences in time on smaller cutters versus high-endurance cutters and NSCs could be important, so we created a categorical variable with six levels for all possible combinations of whether each member had zero days, 1–179 days, and 180 or more days deployed on the high-endurance/NSC cutters versus all other cutters. We used days away from home port in the prior two years because recent deployment experiences are potentially the most important to retention decisions. Furthermore, anything other than recent deployment time would not have been feasible, as career deployment time is unavailable for members who began their careers before FY05, but these older cohorts must be included in order to complete the full 30-year retention profile.

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[10] Importance weights are part of a general statistical technique known as importance sampling. The key idea that we use is that if we want the female distribution of characteristics, $f(x)$, to match the male distribution, $m(x)$, then each female observation should receive an importance weight equal to $g(x)/f(x)$ in the retention rate calculations.

Table E.3 summarizes the retention differences across the three scenarios compared with the baseline by presenting cumulative continuation rates at different years of service. The operations and family scenarios shift cumulative retention by up to 2.5 percentage points for enlisted members and 4.4 percentage points for officers, whereas the total gap in cumulative retention ranges from 13.1 to 15.3 percentage points. Thus, the relatively small increases in workforce representation of women that result in these scenarios stem from the limited impact of changing these individual characteristics in isolation.

Table E.3
Cumulative Continuation Rates for Workforce Model Retention Scenarios

	Baseline	Operations Scenario	Family Scenario	Equalized Retention
Enlisted and warrant officer				
5 years	52.7	54.4	53.2	63.8
10 years	29.4	31.2	30.2	43.0
15 years	22.9	24.4	23.7	36.6
19 years	20.9	22.3	21.7	34.2
Commissioned officer				
5 years	78.6	79.5	78.5	84.3
10 years	57.4	59.8	58.0	70.2
15 years	47.7	50.3	49.3	61.2
19 years	44.3	46.7	45.9	57.6

NOTE: Continuation rates are based on personnel data from FY06 to FY16.

Detailed Regression and Decomposition Results

Table F.1
Regression Results Predicting Continuation or Reenlistment at Each Milestone

	Entered as Enlisted				Entered as Commissioned Officer		
	Continue to 2 Years	First-Term Continuation	Reenlistment	Second-Term Continuation	Continue to 5 Years	Remain in 6th Year	Continue to 9 Years
Female	−0.0323[a]	−0.0374[a]	−0.0278[a]	−0.0575[a]	−0.0082	−0.0401[a]	−0.0169
Married	0.0220[a]	0.0275[a]	0.0672[a]	0.0068	0.0322[a]	0.0103	−0.006
Has child age 0–3	0.0593[a]	0.0754[a]	0.0567[a]	0.0178[b]	0.0185	0.0094	0.0541[a]
Has child age 4–6	0.0525[a]	0.0501[a]	0.0386[a]	0.0261[a]	0.0569[a]	0.0252	0.0255
Has child age 7+	0.0501[b]	0.0675[a]	0.0587[a]	0.0310[a]	0.0743[a]	0.0059	0.0136
AFQT score	0.0011[a]	0.0004[b]	−0.0007[a]	−0.0005[b]			
Advanced degree	0.0435[a]	0.0464[a]	0.0015	−0.0031	0.0346[a]	0.0536[a]	−0.0221
White (non-Hispanic)							
Black (non-Hispanic)	−0.0248[a]	−0.0385[a]	0.0465[a]	−0.0227	0.0217	0.0461	0.0265
Hispanic	0.0003	−0.0015	0.008	−0.0061	0.0103	−0.0087	0.0588
Asian (non-Hispanic)	0.0033	0.01	0.019	0.0062	−0.0025	−0.0384	0.081
Other/multiple (non-Hispanic)	−0.0084	−0.0226[a]	0.0025	−0.0252[b]	−0.0137	−0.0119	−0.0322
Younger than age 25 at accession	0.0043	0.0022	−0.0279[a]	−0.0033	0.0611[a]	−0.0622[a]	−0.0214
6-year term (vs. 4-year)	−0.0116[a]						
Home of record % armed forces	−0.0001	−0.0006	0.0048[a]	0.0007			
Home of record zip missing	0.0724[a]	0.0725[a]	0.0167[b]	−0.0019			
YOS category 1							
YOS category 2		−0.0301[a]	−0.0590[a]	−0.0361[b]			

Table F.1—Continued

	Entered as Enlisted				Entered as Commissioned Officer		
	Continue to 2 Years	First-Term Continuation	Reenlistment	Second-Term Continuation	Continue to 5 Years	Remain in 6th Year	Continue to 9 Years
YOS category 3		-0.1449[a]	0.0527[a]	-0.0665[a]			
YOS category 4		-0.0981[a]	-0.0507[a]	-0.0919[a]			
YOS category 5		-0.0970[a]	-0.0385[b]	-0.1073[a]			
YOS category 6				-0.0851[a]			
Engineering rating							
Non-rated		-0.3743[a]	-0.3249[a]	0.1849[a]			
Operations rating		0.0009	-0.0051	-0.008			
Service/support rating		-0.0104	0.0073	-0.0124			
Grade E-3							
Grade E-4				0.5287[a]			
Grade E-5				0.6918[a]			
Grade E-6 or higher		-0.3743[a]		0.7423[a]			
DAFHP/100 (high-endurance cutter)		-0.0221[a]	0.1179[a]	0.0103	0.0260[a]	-0.0220	0.0368
Square of DAFHP		0.0057[a]	-0.0208[a]	0.0005	-0.0025	0.0097	
DAFHP/100 (270'/210' cutter)		-0.0093[b]	0.0806[a]	-0.0139	0.0216[b]	0.0190	0.0236[b]
Square of DAFHP		0.0029[a]	-0.0101[a]	0.0038[b]	-0.002	-0.0007	
DAFHP/100 (other cuter)		0.0101[b]	0.1147[a]	0.0001	0.0176[b]	0.0490[a]	0.0317[a]
Square of DAFHP		0.0018[b]	-0.0216[a]	0.0026	-0.0008	-0.0091	

Table F.1—Continued

	Entered as Enlisted				Entered as Commissioned Officer		
	Continue to 2 Years	First-Term Continuation	Reenlistment	Second-Term Continuation	Continue to 5 Years	Remain in 6th Year	Continue to 9 Years
Pilot qualification					0.0726a	0.0957a	0.1095a
Missed promotion to next grade						−0.7602a	−0.2048b
Prior enlisted					−0.0335a	0.0297	0.0089
Duty station population density		0.0000a	−0.0000a	0.0000	0.0000	0.0000	0.0000
Duty station female labor force participation		−0.0016a	0.0014	−0.0006	−0.0002	−0.0014	−0.0011
Duty station zip missing		−0.0024	−0.0319a	−0.0084	−0.0278b	0.0036	0.0085
Entry year 1							
Entry year 2	−0.0068	−0.0172	0.0268b	0.0203	−0.0074	−0.0006	0.0394
Entry year 3	0.0072	−0.0442a	0.0290b	0.0284a	0.0053	0.0159	−0.005
Entry year 4	0.0134	−0.0108	0.0253b	0.0230b	−0.0304	−0.0148	−0.007
Entry year 5	−0.0241a	0.0017	0.0025	0.0271b	−0.0147	0.0004	
Entry year 6	0.0136	0.0210b	−0.0133	0.0303	−0.0271	−0.0321	
Entry year 7	−0.0077	0.0111	0.0043		−0.0277	−0.0153	
Entry year 8	−0.0252a	−0.0099	0.0134		−0.0208	0.0097	
Intercept	0.8262a	0.9670a	0.6392a	0.3672a	0.8773a	1.0071a	0.9256a
N	21043	19629	16556	7145	3143	2606	1296

a Indicates statistical significance at the 0.01 level.
b Indicates significance at the 0.05 level.

Table F.2
Decomposition Results for Enlisted Milestones

	Continue to 2 Years		First-Term Continuation		Reenlistment		Second-Term Continuation	
Male average	0.9234[a]		0.8582[a]		0.7423[a]		0.9042[a]	
Female average	0.8895[a]		0.7995[a]		0.6761[a]		0.8459[a]	
Difference	0.0339[a]		0.0587[a]		0.0662[a]		0.0583[a]	
Explained component	0.0016		0.0213[a]		0.0384[a]		0.0007	
Unexplained component	0.0323[a]		0.0374[a]		0.0278[a]		0.0575[a]	
Contributions of individual groups of factors								
	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
Married	−0.0004[b]	−0.0055	0.0003	−0.0035[a]	0.0025[a]	−0.0033[a]	0.0006	0.0047[b]
Children	0.0007[b]	0.0378[b]	0.0036[a]	0.018	0.0034[a]	0.0406	0.0030[a]	0.014
AFQT score	0.0012[a]	−0.0364	0.0004[b]	−0.0069	−0.0007[b]	0.0329	−0.0003	0.0852
Advanced degree	−0.0020[a]	0.009	−0.0024[a]	0.0067	−0.0001	−0.0085	0.0002	−0.0051
Race/ethnicity	−0.0002	−0.0014	−0.0005	0.0275[a]	0.0001	0.0129	−0.0003	−0.0055
Younger than age 25 at accession	0.0001	−0.0023	0.0001	−0.0052	−0.0008[b]	0.0148	−0.0001	0.0167
6-year term (vs. 4-year)	−0.0005[b]	−0.0042						
Entry year	0.0016[b]	0.0010	−0.0039[a]	−0.0002	0.0035[a]	0.0001	−0.0008	−0.0024
Home of record	0.0011	0.0042	0.0008	0.0067	−0.0010[b]	0.0036	−0.0002	−0.0046
YOS			−0.0061[a]	−0.0034	0.0025[b]	−0.0062	−0.0051[a]	0.0001
Rating			0.0189[a]	0.001	0.0077[b]	−0.0219[a]	0.0034	−0.1053[b]
DAFHP (high-endurance cutter)			0.0004	0.0006[b]	−0.0023[b]	−0.0007	−0.0003	0.0031

Table F.2—Continued

	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
DAFHP (270'/210' cutter)			0.0029[a]	–0.0016	0.0132[a]	0.0046[b]	0.0004	0.0011		
DAFHP (other cutter)			0.0064[a]	0.0051	0.0099[a]	0.0005	0.0013	–0.0064[a]		
Duty station			0.0003	–0.0774	0.0005	0.2422[b]	0.001	0.3160[b]		
Grade							–0.002	0.0583		
Intercept		0.0301		0.0714		–0.2838[b]		–0.3122		

[a] Indicates statistical significance at the 0.01 level.
[b] Indicates significance at the 0.05 level.

Table F.3
Decomposition Results for Officer Milestones

	Continue to 5 Years		Remain in 6th Year		Continue to 9 Years	
Male average	0.9478[a]		0.8747[a]		0.9287[a]	
Female average	0.9212[a]		0.8103[a]		0.8758[a]	
Difference	0.0266[b]		0.0644[a]		0.0529[a]	
Explained component	0.0184[a]		0.0243[b]		0.0360[a]	
Unexplained component	0.0082		0.0401[a]		0.0169	
Contributions of individual groups of factors						
	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
Married	0.0037[a]	0.0003	0.0011	0.0006	−0.0008	−0.0083
Children	0.0133[a]	0.0072	0.0038	0.0407	0.0112[b]	0.0334
Advanced degree	−0.0008	0.0139	−0.0015	0.0251[b]	0.0013	0.0421[a]
Race/ethnicity	−0.0002	0.0181	−0.0003	0.0075	−0.0005	0.0062
Younger than age 25 at accession	−0.0055[a]	−0.0072	0.0064[a]	0.0106	0.0023	−0.0002
Entry year	−0.0002	−0.0007	−0.0007	−0.0054	0.0015	−0.0035
DAFHP (high-endurance cutter)	−0.0011	−0.0024	0.0004	−0.0017	0.0017[a]	−0.0007
DAFHP (270'/210' cutter)	−0.0006	0.0053	−0.0001	−0.0049	−0.0004	−0.0054
DAFHP (other cutter)	0.0013	−0.0028	0.0018	−0.0056	0.0031[b]	0.0019
Duty station	0.0012	−0.0104	0.0017	0.249	−0.0009	0.5719[b]
Pilot qualification	0.0053[a]	0.007	0.0079[a]	0.0417[a]	0.0176[a]	0.0295[b]
Missed promotion to next grade	0.0029	−0.0369	0.0024	0.0721[a]	−0.0006	0.1283
Prior enlisted	−0.0008	−0.0057	0.0014	0.0036	0.0005	0.0089
Intercept		0.0225		−0.3932		−0.7871[b]

[a] Indicates statistical significance at the 0.01 level.

[b] Indicates significance at the 0.05 level.

Exploratory Analysis of Weight and Body Fat Standards

Focus group participants raised the issue of Coast Guard weight and body fat standards as a potential contributor to relatively low female retention. Participants indicated that meeting standards is a particular burden for women and a source of stress that can influence retention decisions. Unfortunately, historical data on member weight and body fat measurements were not available for incorporation into the decomposition analysis. However, some recent data provided by the Coast Guard permitted an exploratory analysis of the relationship between weight and body fat measurements, gender, and continuation rates.

The available data included records for most active-duty members in FY15 and later with just a few fields capturing member height and weight measurements, along with the supplemental measurements that are only required for those who are above the maximum weight limit. Notably, there are no fields indicating whether the member passed or failed, or whether the member was exempt from meeting the standard (e.g., for pregnancy); instead, this information appears in an unstructured text field containing miscellaneous comments from the test administrator. To attempt to bridge these gaps, we created indicator variables for pregnancy-related exemptions and general exemptions by trial-and-error matching of frequently appearing character strings (e.g., "exempt" or "abeyance"). To attempt to identify whether members ultimately passed or failed, we compared height/weight and body fat measurements to the published standards in COMDTINST M1020.8H (2016); however, this method appeared to have a significant error rate (as some members whose measurements did not appear to be within standards were deemed "in compliance" according to the comments field).

The Coast Guard establishes maximum screening weights that correspond to a body mass index (BMI) of 27.5, and any member who exceeds the maximum weight receives a body fat assessment that is compared with standards that are age- and gender-specific. Members who exceed the maximum screening weight and the maximum allowable body fat standards are deemed noncompliant, which brings potential negative consequences (COMDTINST M1020.8H, 2016). To explore whether there are differential retention effects of this process, we binned all personnel into BMI categories by rounding each person's average BMI over the course of the year to the nearest

half-unit and calculated retention rates in the subsequent year for each bin. If meeting the standard is a source of unique difficulty to women, we might observe widening retention gaps as members approach the BMI standard of 27.5. Figure G.1 presents this picture by showing continuation rates for men and women at each BMI level, along with gold bars representing the difference between the male continuation rate and the corresponding female rate. The top panel shows results calculated with all personnel who did not appear to be exempt from the administrator comments, while the bottom panel includes only personnel who did not exceed the body fat standards over the course of the previous year.

The first half of Figure G.1 shows that aggregate continuation rates for men and women are very close to one another for members with BMIs of 21 through 27.5, above which female continuation rates fall relative to male rates (somewhat sharply beginning at a BMI of 29.5). A comparison of the top and bottom panels reveals that the lower levels of female continuation in this range are driven by lower continuation rates among women who also exceed the body fat standards, as the gender difference all but disappears when such members are excluded. Women were less likely than men to have BMIs of above 27.5 (10.2 percent versus 33.0 percent), but those who exceeded the maximum BMI were significantly more likely than men to also exceed the body fat standard (31.7 percent versus 7.2 percent). Thus, for a portion of the women in the recent data, compliance with the weight and body fat standards could plausibly contribute to relatively low female retention. However, the fact that lower retention stems mainly from women who fail (rather than those on the margin) suggests that the mechanism could be the actual consequences of failure as opposed to the burden or stress of remaining compliant with the standards.

Decisionmakers should continue to monitor new waves of data to form a more complete picture of whether weight and body fat standards contribute to relatively low female retention. Furthermore, standardization in the data collection procedures could be improved by incorporating fields for pass/fail and exemptions, with standardized exemption categories for common reasons that will permit simple summary calculations with minimal effort.

Figure G.1
Percentage Retained Versus Prior-Year Body Mass Index
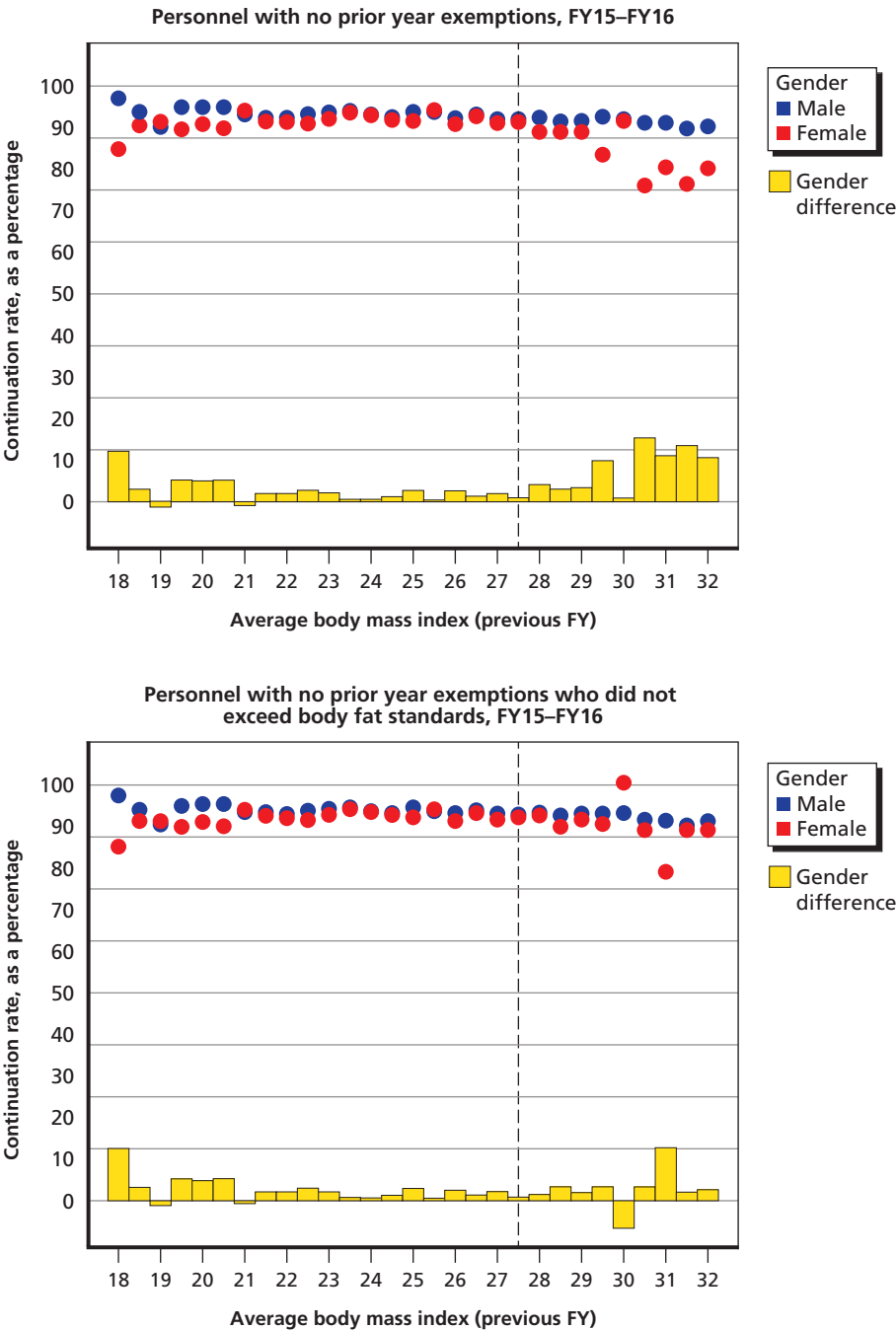
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