



May 2020

# FEMALE ACTIVE- DUTY PERSONNEL

## Guidance and Plans Needed for Recruitment and Retention Efforts

Accessible Version

# GAO Highlights

Highlights of [GAO-20-61](#), a report to congressional committees

## Why GAO Did This Study

The role of female servicemembers in the military has expanded in the last half century as restrictions on female servicemembers serving on active duty, including in combat, have been eliminated. DOD has also stated that recruiting and retaining women is important in order to reflect the nation's population and ensure strong military leadership.

House Report 115-676 includes a provision that GAO review female retention and promotion in the military. This report examines (1) trends in the percentage of female active-duty servicemembers in the military and their attrition rates, including reported factors leading to attrition; (2) how female active-duty servicemember promotion rates compare with those of males and among females with differing characteristics, and what factors influence these rates; and (3) the extent to which DOD and the military services have plans to guide and monitor female active-duty servicemember recruitment and retention. GAO analyzed fiscal year 2004 through 2018 personnel data to identify attrition and promotion rates and conducted statistical modeling to determine the likelihood of separation and promotion, reviewed DOD reports and other literature on servicemember attrition, and interviewed officials from DOD and other military organizations.

## What GAO Recommends

GAO recommends that DOD provide the services with guidance to develop plans with goals, performance measures, and timelines to address female recruitment and retention efforts, and for the services to develop such plans. DOD concurred with the recommendations.

View [GAO-20-61](#). For more information, contact Brenda S. Farrell at (202) 512-3604 or [farrellb@gao.gov](mailto:farrellb@gao.gov).

May 2020

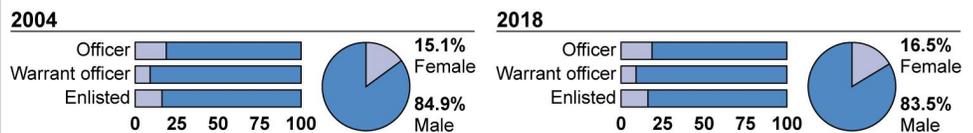
## FEMALE ACTIVE-DUTY PERSONNEL

### Guidance and Plans Needed for Recruitment and Retention Efforts

#### What GAO Found

The Department of Defense (DOD) experienced slight increases in the overall percentage of female active-duty servicemembers from fiscal year 2004 through 2018 (15.1 percent in fiscal year 2004 to 16.5 percent in fiscal year 2018), with those percentages varying by pay grade category (see figure). During that period, female enlisted and commissioned officers had higher annual attrition rates than corresponding males. However, the gaps between male and female attrition rates have narrowed. For example, in fiscal years 2004 and 2018, female enlisted servicemembers' annual attrition rates were 33.1 and 8.6 percent, respectively, and enlisted males' annual attrition rates were 22.7 and 6.1 percent respectively. GAO's statistical model found that the likelihood of separation for female servicemembers is 28 percent higher than that of males. GAO's literature review of selected studies on reasons why females separate from the military identified six themes, including family planning, sexual assault, and dependent care, as influencing separations.

#### Gender Representation in the U.S. Military by Pay Grade, Fiscal Years 2004 and 2018



Source: GAO analysis of Department of Defense data. | GAO-20-61

GAO's analysis of fiscal year 2004 through 2018 data estimated that promotion rates were slightly lower for female enlisted in most years, but higher for officers as compared to their male counterparts. Specifically, female enlisted promotion rates ranged from 0.1 to 2.5 percentage points lower than male enlisted promotion rates during much of that period. However, from fiscal year 2004 through 2018, female commissioned officer promotion rates ranged from 3.3 to 5.3 percentage points higher than the rates of their male counterparts. GAO's statistical model also estimated that the likelihood of promotion outcomes varies by certain characteristics, such as gender and pay grade. For example, GAO estimated that the likelihood of promotion for female enlisted in the Navy may be lower than male enlisted, and the evidence is mixed for the other services.

DOD has identified female recruitment and retention as important to diversity in the military, but the services do not have plans that include goals, performance measures, and timeframes to guide and monitor current or future efforts to recruit and retain females. According to officials, DOD is currently updating its diversity and inclusion strategic plan; however, neither its prior plan nor the updated plan include goals, such as recruitment or retention goals, performance measures, and timelines for any one particular demographic group. DOD officials stated that retention goals have, in the past, been misconstrued as quotas and, as such, the department does not set goals or targets for gender. However, goals are not quotas and can help guide continued improvement. Without DOD guidance and service plans with goals, performance measures, and timeframes to monitor female recruitment and retention efforts, DOD may continue to miss opportunities to recruit and retain a valuable segment for its active-duty force.

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**Abbreviations**

|          |   |
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| DOD      | Department of Defense                               |
| OSD      | Office of the Secretary of Defense                  |
| DMDC     | Defense Manpower Data Center                        |
| ODEI     | Office of Diversity, Equity, and Inclusion          |
| DACOWITS | Defense Advisory Committee on Women in the Services |

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May 19, 2020

The Honorable James M. Inhofe  
Chairman  
The Honorable Jack Reed  
Ranking Member  
Committee on Armed Services  
United States Senate

The Honorable Adam Smith  
Chairman  
The Honorable Mac Thornberry  
Ranking Member  
Committee on Armed Services  
House of Representatives

Since the end of World War II, the role of female servicemembers in the military has expanded and more recent changes to laws and Department of Defense (DOD) policies have eliminated restrictions on female servicemembers serving in various capacities.<sup>1</sup> In 2015, the Secretary of Defense stated that he had made a commitment to building America's force of the future—the all-volunteer military that will defend the nation for generations to come—and that, like the outstanding force of today, the force of the future must continue to benefit by drawing strength from the broadest possible pool of talent, including women, who make up over 50 percent of the population.<sup>2</sup> DOD officials have also stated that recruiting and retaining female servicemembers is important in order to more

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<sup>1</sup>A 2013 Secretary of Defense and Chairman of the Joint Chiefs of Staff memorandum directed the military services to open currently closed units and positions to women, consistent with certain principles and with the implementation of certain standards. Additionally, the memorandum directed the integration of women into newly opened positions and units to occur as expeditiously as possible, considering good order and judicious use of fiscal resources, but no later than January 1, 2016. The memorandum also directed that any recommendation to keep an occupational specialty or unit closed to females be personally approved first by the Chairman of the Joint Chiefs of Staff, and then by the Secretary of Defense. Any exceptions must be narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills, and abilities needed for the position. See Secretary of Defense and Chairman of the Joint Chiefs of Staff Memorandum, *Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule* (Jan. 24, 2013).

<sup>2</sup>Secretary of Defense Ash Carter, *Remarks on the Women-in-Service Review* (Dec. 3, 2015, as delivered in the Pentagon Press Briefing Room).

accurately reflect the nation's population, ensure the strongest possible military leadership, and maintain and improve mission readiness. Nevertheless, according to the 2017 Defense Advisory Committee on Women in the Services (DACOWITS) report, there continues to be only nominal gender diversity in the military, especially in the highest echelons of departmental leadership, and more female servicemembers leave the military at various career points than their male counterparts.<sup>3</sup>

In 2015, we reported on DOD's efforts to integrate female servicemembers into ground combat roles.<sup>4</sup> We found, among other things, that DOD had been tracking, monitoring, and providing oversight over the services' efforts to integrate women into ground combat positions, but had not developed plans to monitor long-term integration progress. We reported that after the decisions had been made to open positions and occupations to women, there was a lengthy implementation process before women were able to serve in the newly opened occupations. However, we found that the Office of the Under Secretary of Defense for Personnel and Readiness had not developed plans for a mechanism or process to monitor the services' progress in their efforts to integrate newly opened positions and occupations after January 1, 2016. We recommended that the Secretary of Defense direct the Under Secretary of Defense for Personnel and Readiness to develop plans for monitoring, after January 2016, the services' implementation of their integration efforts and progress in opening positions to women, including an approach for taking any needed action. DOD concurred with and took action to address this recommendation in March 2016 by requiring that annual assessments regarding the full integration of women in the armed forces be submitted no later than December 31 of each calendar year.

Additionally, in 2015, we reported on DOD and Coast Guard officer recruiting efforts. Specifically, we reported that DOD officials recognized the importance of increasing the representation—or total number—of female servicemembers and that senior leadership in the military services also expressed their intent to increase diversity within their respective

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<sup>3</sup>DACOWITS, *2017 Annual Report* (Dec. 12, 2017). According to DACOWITS, in 1951 the Secretary of Defense established DACOWITS—one of the oldest DOD federal advisory committees—to provide advice and recommendations via an annual report on matters and policies relating to the recruitment, retention, employment, integration, well-being, and treatment of female servicemembers in the armed forces.

<sup>4</sup>See GAO, *Military Personnel: DOD is Expanding Combat Service Opportunities for Women, but Should Monitor Long-Term Integration Progress*, [GAO-15-589](#) (Washington, D.C.: July 20, 2015).

services, to include increasing the representation of female officer applicants in both DOD and the Coast Guard.<sup>5</sup> Prior to these changes, we previously reported on the attrition and retention of female servicemembers in the military and found that female servicemembers generally leave the service at higher rates than male servicemembers, although the basic pattern of attrition was similar for both male and female servicemembers.<sup>6</sup>

House Report 115-676 accompanying a bill for the John S. McCain National Defense Authorization Act for Fiscal Year 2019 stated that concerns persist that higher attrition rates of female active-duty servicemembers than male servicemembers will result in a disproportionate impact to mission readiness if left unresolved.<sup>7</sup> The report also stated that, from an economic standpoint, when female employees leave, organizations must deal with higher recruiting costs, longer training times, and lower productivity. This report included a provision for us to examine, among other things, promotion and attrition for female servicemembers compared to other groups in the military and the reasons for any differences in promotion and attrition.

This report examines (1) trends in the percentage of female active-duty servicemembers in the military and their attrition rates from fiscal year 2004 through 2018, including the reported factors leading to that attrition; (2) how female active-duty servicemember promotion rates compare with

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<sup>5</sup>GAO, *Military Personnel: Oversight Framework and Evaluations Needed for DOD and the Coast Guard to Help Increase the Number of Female Officer Applicants*, [GAO-16-55](#) (Washington, D.C.: Nov. 13, 2015). This report included a total of four recommendations—two recommendations to DOD and the same two recommendations to the Coast Guard—focused on oversight and evaluation of efforts to increase the number of female officer applicants. With regard to the recommendations made to DOD, the first recommended that DOD develop an oversight framework that includes or incorporates, among other things, service-wide program goals for initiatives directed at recruitment of female officers. The second recommended that DOD conduct evaluations for key recruitment initiatives to help ensure the initiatives are achieving their intended purpose. DOD concurred with the first recommendation, but did not state whether it concurred with the second. As of January 2020, DOD had initiated action on these recommendations, but has not yet completed all necessary steps.

<sup>6</sup>GAO, *Women in the Military: Attrition and Retention*, [GAO/NSIAD-90-87BR](#) (Washington, D.C.: July 26, 1990). That report defined attrition as voluntary and involuntary loss of military personnel prior to completion of the first term of enlistment or obligated duty. Our 1990 report also defined retention as the voluntary continuation in military service after completing the initial obligation. We use these same definitions for attrition and retention in this report.

<sup>7</sup>See H.R. Rep. No. 115-676, at 106 (2018).

those of their male counterparts and among female servicemembers with differing characteristics from fiscal years 2004 through 2018, and what factors influence these rates; and (3) the extent to which DOD and the military services have plans to guide and monitor female active-duty servicemember recruitment and retention.

To address these objectives, we focused our review on active-duty enlisted servicemembers, commissioned officers, and warrant officers in all pay grades, serving within DOD in the four military services (the Army, the Navy, the Marine Corps, and the Air Force).<sup>8</sup>

For our first and second objectives, we obtained and analyzed servicemember personnel data for fiscal years 2004 through 2018 from the Defense Manpower Data Center (DMDC), including service start date, branch of service, grade, gender, race, marital status, and whether the servicemember has dependents. We selected fiscal year 2004 through 2018 because this is the most recent 15-year time period for which DOD has complete data available and allows for a robust trend analysis. These data were obtained from three different files that DMDC maintains. We aggregated these data into a single file that allowed us to analyze them for both descriptive statistics to show trends, as well as model using statistical analyses to examine the likelihood that specific events would occur for various demographic characteristics.<sup>9</sup> Specifically, we implemented a discrete time method for the analysis of event histories, using the logit model.<sup>10</sup> This is a type of duration analysis methodology

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<sup>8</sup>The Air Force does not have warrant officers. On December 20, 2019, after we completed the data-gathering portion of our review, the National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-120, established the United States Space Force as a military service within DOD. Accordingly, since we did not gather data from the Space Force, throughout this report we refer to only four military services within DOD.

<sup>9</sup>We used the discrete time duration analysis method for the analysis of event histories, using the logit model to examine the associations between each of separation and promotion outcomes and different demographic groups. Allison, P., "Discrete-Time Methods for the Analysis of Event Histories," *Sociological Methodology*, vol. 13 (1982): pp. 61-98. doi:10.2307/270718. Duration analysis is a statistical method for analyzing various event occurrences and timings of events. Separation refers to the voluntary or involuntary loss of military personnel other than retirement or death. We used a duration analysis method to examine the associations in the likelihood of separations across different characteristic groups.

<sup>10</sup>Discrete methods allow for flexible modeling specifications including time-varying covariates. See Wooldridge, J.M., "Econometric Analysis of Cross Section and Panel Data," 2<sup>nd</sup> edition., ch. 22 (Cambridge, Massachusetts, The MIT Press, 2010); Allison, P., "Discrete-Time Methods for the Analysis of Event Histories," *Sociological Methodology*, vol. 13 (1982): pp.61-98. doi:10.2307/270718.

that is suited to the analysis of event occurrences and their timing—which is the time elapsed until the event occurs (e.g. number of years until separation or promotion).

We could not control for all factors that may affect separation and promotion, such as a servicemember’s performance and labor market conditions. We also do not model for the promotion process of each of the services. Therefore, our modeling provides information on possible associations in the data, and it does not establish a causal relationship. We determined that the data obtained and used in our analysis are reliable for the purposes of this review by reviewing related documentation, for example, the data dictionary associated with the active-duty file; interviewing knowledgeable officials from DMDC; and conducting both electronic and manual data testing to look for missing or erroneous data.

We also conducted a literature search for existing studies that analyzed female servicemember attrition and promotion. To identify these studies, we conducted searches of various databases, including ProQuest, EBSCO, Westlaw Edge, Scopus, Dialog, and the National Technical Information Service, for studies published in calendar years 2008 through 2018. This search and review process yielded 213 potentially relevant studies and, after further analysis, we selected 87 studies for full text review.<sup>11</sup> From the group of 87 studies, we excluded 81 studies because they did not meet our inclusion criteria or the results were deemed not relevant to this review. The resulting six studies were further reviewed for content.<sup>12</sup> Two analysts sequentially reviewed the full texts of these studies to identify substantive content relevant to our review and two methodologists sequentially reviewed them to help ensure that they were methodologically sound for the purposes of our review. Any differences were reconciled between the analysts and methodologists. All results reported from the reviewed studies were deemed sufficiently reliable for use in this report.

For our third objective, we reviewed documentation on the Office of the Secretary of Defense’s (OSD) and services’ efforts to collect and analyze

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<sup>11</sup>The initial search yielded 3,124 results. However, 2,911 results were excluded based on one or more of the following factors: duplicates, false-hits (search terms were in citation but were out of context), or geographically out of scope. An example of a false-hit would include articles about retention or promotion in law enforcement, not military.

<sup>12</sup>See appendix I for a list of the studies we included in our review.

data on diversity in the department, as well as servicemember retention. We reviewed the department's plans for developing and promoting diversity and inclusion in the force, including the department's 2012-2017 Diversity and Inclusion Strategic Plan.<sup>13</sup> We reviewed a draft version of the department's forthcoming 2019-2024 Diversity and Inclusion Strategic Plan. We evaluated their efforts to determine whether they met federal internal control standards, including that management should design appropriate types of control activities such as defining objectives clearly and helping ensure that terms are understood at all levels.<sup>14</sup> We reviewed other publications on female recruitment and retention efforts in the military, including reports and briefings developed by the DACOWITS and the 2011 final report of the Military Leadership Diversity Commission<sup>15</sup> to determine what others had found and recommended with regard to female recruitment, retention, and participation in the military. We also analyzed our past reports and recommendations, for example, on military personnel management<sup>16</sup> and DOD's Career Intermision Pilot Program, among others.<sup>17</sup>

For each of the objectives, we interviewed officials from the Office of Military Personnel Policy and the Office for Diversity, Equity, and Inclusion (ODEI), both under the Office of the Under Secretary of Defense for Personnel and Readiness, as well as officials from the four military services. We also interviewed representatives from DACOWITS and the

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<sup>13</sup>Department of Defense, *Diversity and Inclusion Strategic Plan 2012-2017* (2012). According to ODEI officials, the department is currently updating its diversity and inclusion strategic plan.

<sup>14</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

<sup>15</sup>Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*, (Arlington, VA: Mar. 15, 2011). The Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 established the Military Leadership Diversity Commission and directed it to conduct a comprehensive evaluation and assessment of policies that provide opportunities for the promotion and advancement of minority members of the Armed Forces. See Pub. L. No. 110-417, § 596 (2008).

<sup>16</sup>[GAO-16-55](#).

<sup>17</sup>GAO, *Military Personnel: DOD Should Develop a Plan to Evaluate the Effectiveness of Its Career Intermision Pilot Program*, [GAO-16-35](#) (Washington, D.C.: Oct. 27, 2015); GAO, *Military Personnel: Observations on the Department of Defense's Career Intermision Pilot Program*, [GAO-17-623R](#) (Washington, D.C.: May 31, 2017).

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Service Women’s Action Network.<sup>18</sup> Additional details on our objectives, scope, and methodology are included in appendix II.

We conducted this performance audit from September 2018 to May 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Background

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### Female Participation in the U.S. Military

While female participation in the military dates back to the American Revolution, women have formally served in United States military units since 1901 with the establishment of the Army Nurse Corps.<sup>19</sup> The Act of May 14, 1942 authorized the president to establish and organize a Women’s Army Auxiliary Corps for the purpose of “making available to the national defense when needed the knowledge, skill, and special training of the women of this Nation.”<sup>20</sup> In 1948, the Women’s Armed Services Integration Act of 1948 authorized the military services to, subject to the provisions of the act, enlist and appoint women to their active and reserve components.<sup>21</sup>

Certain provisions of the Women’s Armed Services Integration Act of 1948, including limits on the number of women in the Navy and Marine Corps, were repealed in 1967,<sup>22</sup> and additional changes to DOD policies have been made since then. For example, the Department of Defense Appropriation Authorization Act, 1976 directed the secretaries of the

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<sup>18</sup>The Service Women’s Action Network was established in 2007 with a mission to support, connect and advocate for female servicemembers in the military; and a goal to ensure female servicemembers have access to the information, tools, and support needed to reach their personal and professional goals during and following their years of service.

<sup>19</sup>Act of February 2, 1901, ch. 192, 31 Stat. 748-58 (1901).

<sup>20</sup>Pub. L. No. 77-554, ch. 312, 56 Stat. 278-82 (1942).

<sup>21</sup>Pub. L. No. 80-625, ch. 449, 62 Stat. 356-75 (1948).

<sup>22</sup>See Act of November 8, 1967, Pub. L. No. 90-130, 81 Stat. 374-84 (1967).

military departments to, among other things, take such action as may be necessary and appropriate to insure that women were eligible for appointment and admission to the military service academies.<sup>23</sup> Almost two decades later, the National Defense Authorization Act for Fiscal Year 1994, among other things, required the Secretary of Defense to ensure that qualification of members of the armed forces for military occupational career fields open to both male and female members is evaluated on the basis of common, relevant performance standards without differential standards or evaluation on the basis of gender.<sup>24</sup> It also repealed the remaining statutory prohibitions on the Secretary of the Navy assigning female servicemembers to duty on vessels and aircraft engaged in combat missions or expected to be assigned combat missions.

In January 1994, the Secretary of Defense issued a memorandum creating the Direct Ground Combat Definition and Assignment Rule, which made servicemembers eligible for assignment to all positions for which they were qualified, but it excluded female servicemembers from assignment to units below the brigade level whose primary mission was to engage in direct combat on the ground.<sup>25</sup> The memorandum required the services to coordinate approved implementing policies and regulations—including certain service restrictions on the assignment of women—with the Assistant Secretary of Defense for Personnel and Readiness prior to their issuance. The memorandum also permitted the services to propose additional exceptions.

In its 2011 final report, the Military Leadership Diversity Commission stated that the services' have been leaders in providing opportunities for all servicemembers, regardless of racial/ethnic background, or gender, and stated that the DOD's mission-effective force is a living testament to progress in the areas of military equal opportunity policies and related

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<sup>23</sup>Pub. L. No. 94-106, § 803(a) (1975) (codified at 10 U.S.C § 7442 note (Eligibility of Female Individuals for Appointment and Admission to Service Academies)).

<sup>24</sup>Pub. L. No. 103-160, §§ 541(a), 543(a)(1)(1993) (§ 543 codified, as amended, at 10 U.S.C. § 113 note (Gender-Neutral Occupational Performance Standards)).

<sup>25</sup>Secretary of Defense Memorandum, *Direct Ground Combat Definition and Assignment Rule* (January 13, 1994). The memorandum defined direct ground combat as engaging an enemy on the ground with individual- or crew- served weapons, while being exposed to hostile fire and to a high probability of direct physical combat with the hostile force's personnel and as taking place well forward on the battlefield while locating and closing with the enemy to defeat them by fire, maneuver, or shock effect.

recruiting and management tactics.<sup>26</sup> The report also stated that more needs to be done to address 21st century challenges and that the Armed Forces have not yet succeeded in developing a continuing stream of leaders who are as demographically diverse as the nation they serve.

A 2013 Secretary of Defense and Chairman of the Joint Chiefs of Staff memorandum rescinded the 1994 Direct Ground Combat Definition and Assignment Rule.<sup>27</sup> That memorandum also directed the military services to open currently closed units and positions to female servicemembers, consistent with certain principles and with the implementation of certain standards. The memorandum also directed that the integration of female servicemembers into these newly opened positions and units occur as expeditiously as possible, considering good order and judicious use of fiscal resources, and no later than January 1, 2016.

The military services also took action through issuing guidance. For example, in 2013, the Commandant of the Marine Corps issued a letter to Marine Corps leadership stating that it is imperative for the Marine Corps to take a fresh approach to diversity and establishing four task force groups, including one titled “Women in the Corps: Attract, Develop, and Retain Women Officers.”<sup>28</sup> Subsequently in June 2014, the Secretary of the Air Force and Air Force Chief of Staff released a memorandum establishing active-duty officer applicant pool goals, which are intended to reflect the nation’s highly talented, diverse, and eligible population.<sup>29</sup>

More recently, in 2015, the Secretary of Defense determined that no exceptions were warranted to the full implementation of the rescission of the Direct Ground Combat Definition and Assignment Rule and directed the secretaries of the military departments and chiefs of the military services to begin to execute the implementation of their approved plans to open all military occupational specialties, career fields, and branches for

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<sup>26</sup>Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st-Century Military* (Arlington, VA: Mar. 15, 2011).

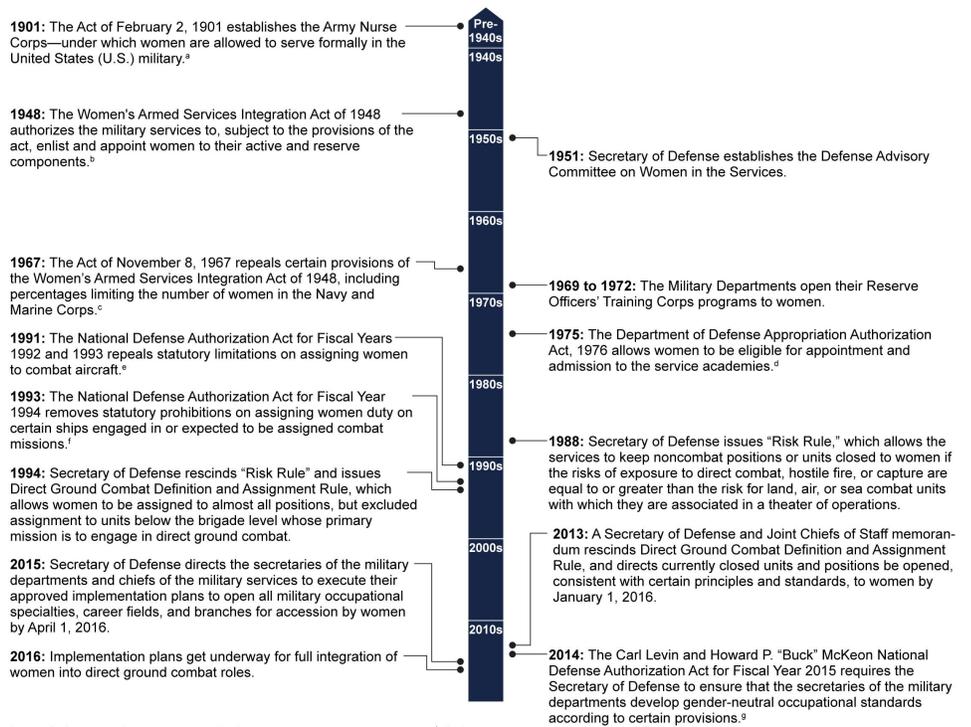
<sup>27</sup>Secretary of Defense and Chairman of the Joint Chiefs of Staff Memorandum, *Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule* (Jan. 24, 2013).

<sup>28</sup>Commandant of the Marine Corps Memorandum, *Commandants Diversity Task Force Initiative*, White Letter 2-13 (2013). The memorandum states that the purpose of the task force groups is to surface the key diversity-related issues to better understand them and take appropriate action where there are shortcomings, such as in the Marine officer corps.

<sup>29</sup>Secretary of the Air Force and Air Force Chief of Staff Memorandum, *Applicant Pool Goals for Active-Duty Officers* (June 16, 2014).

accession by female servicemembers as soon as practicable and not later than April 1, 2016.<sup>30</sup> Figure 1 presents a timeline of selected events in female participation in the military, including changes to laws and policies.

**Figure 1: Timeline of Selected Female Participation in the U.S. Military and Related Changes to Laws and Policies**



Source: GAO analysis of laws, Department of Defense policies, and service memorandum. | GAO-20-61

<sup>a</sup>Ch. 192, 31 Stat. 748-58, §§ 18-19 (1901).

<sup>b</sup>Pub. L. No. 80-625, ch. 449, 62 Stat. 356-75 (1948).

<sup>c</sup>Pub. L. No. 90-130, 81 Stat. 374-384 (1967).

<sup>d</sup>Pub. L. No. 94-106, § 803(a) (1975) (codified at 10 U.S.C. § 7442 note (Eligibility of Female Individuals for Appointment and Admission to Service Academies)).

<sup>e</sup>Pub. L. No. 102-190, § 531(a) (1991).

<sup>f</sup>Pub. L. No. 103-160, § 541(a) (1993).

<sup>g</sup>Pub. L. No. 113-291, § 524 (2014) (codified as amended at 10 U.S.C. § 113 note (Removal of Artificial Barriers)).

<sup>30</sup>Secretary of Defense Memorandum, *Implementation Guidance for the Full Integration of Women in the Armed Forces* (Dec. 3, 2015).

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## Percentage of Female Servicemembers Increased Slightly Over 15 Years; Data and Studies Show That Female Servicemembers Attrite at Higher Rates and Are More Likely to Separate Due to Various Factors

Overall, the percentage of female active-duty servicemembers slightly increased from fiscal year 2004 through 2018. However, our analyses also determined that for fiscal years 2004 through 2018, female enlisted servicemembers and commissioned officers had higher attrition rates than their male counterparts, and the percentage of female active-duty servicemembers began to decrease at the 10-to-less-than-20-years of service career point, meaning a smaller pool of female servicemembers being available for leadership opportunities. We also found that female servicemembers are generally more likely to separate from the military, and that the reasons active-duty servicemembers separate from the military vary by gender, pay grade category, and length of service. In addition, other factors—such as access to quality childcare or family planning—have been found to influence female active-duty servicemembers' separation decisions based on our review of existing literature.

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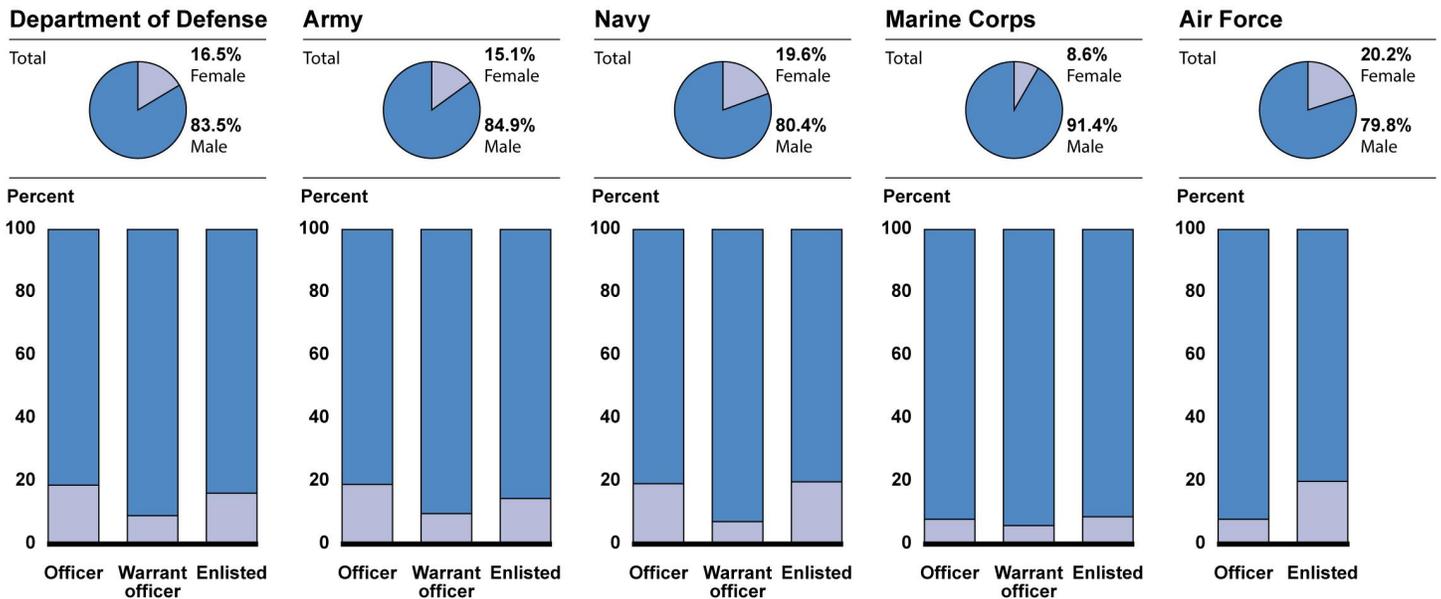
## Overall Percentages of Female Active-Duty Servicemembers Increased Slightly from Fiscal Year 2004 through 2018, and the Percentages of Female Servicemembers Vary among the Services

The services have experienced slight increases in their populations of female active-duty servicemembers from fiscal year 2004 through 2018. More specifically, the overall percentage of female active-duty servicemembers increased slightly department-wide within that 15 year period, from 15.1 percent in fiscal year 2004 to 16.5 percent in fiscal year 2018, with slight decreases identified in some years—for example, fiscal years 2005 through 2009. Comparatively, the percentage of males

...serving on active duty decreased from 84.9 percent in 2004 to 83.5 percent in 2018.<sup>31</sup>

In fiscal year 2018, the Air Force had the highest percentage of female active-duty servicemembers (20.2 percent), followed by the Navy (19.6 percent), the Army (15.1 percent), and the Marine Corps (8.6 percent). The Air Force also had the highest percentages of female enlisted and officers in fiscal year 2018 (20.0 percent and 21.3 percent, respectively). The Marine Corps (8.7 percent female enlisted and 7.9 percent female officer), had the lowest percentages in fiscal year 2018.<sup>32</sup> Figure 2 shows the representation of active-duty servicemembers, by gender, organization, and pay grade for fiscal year 2018.

**Figure 2: Representation of Active-Duty Servicemembers by Gender, Organization, and Pay Grade, Fiscal Year 2018**



Source: GAO analysis of of Department of Defense data. | GAO-20-61

Note: The Air Force does not have warrant officers.

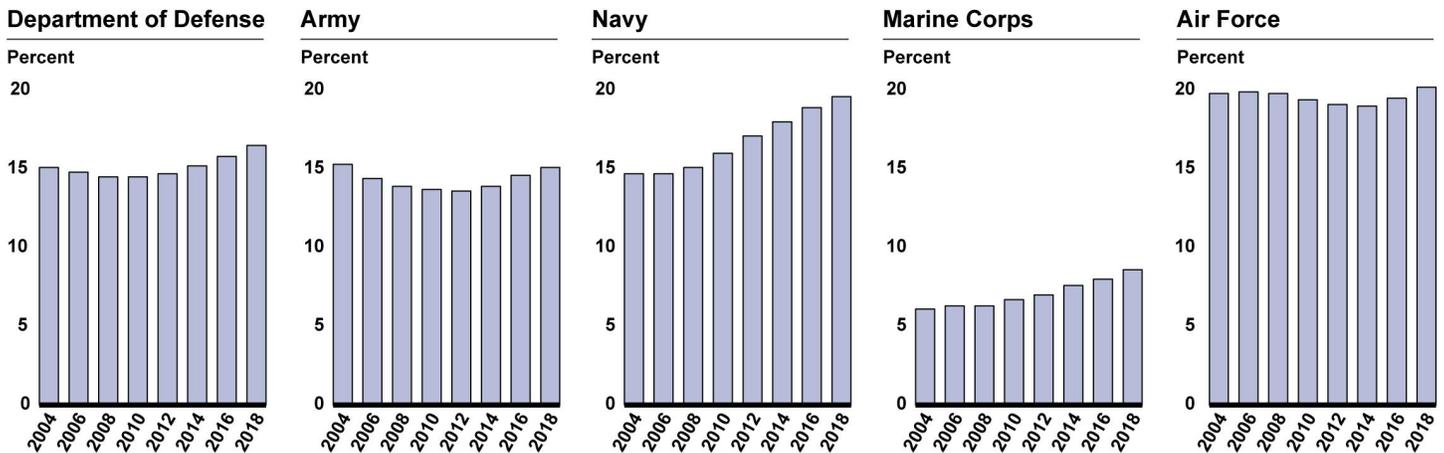
The Air Force and the Army had higher percentages of female servicemembers than the Navy and Marine Corps in fiscal year 2004—

<sup>31</sup>We present additional fiscal year 2004 through 2018 data on active-duty servicemembers in appendix III.

<sup>32</sup>The Air Force does not have warrant officers; whereas, the Marine Corps, Army, and Navy do. In fiscal year 2018, 5.9 percent of the Marine Corps' warrant officers were female.

the first year of the data we analyzed—and those percentages remained relatively stable over the full 15 fiscal years of data we analyzed.<sup>33</sup> Additionally, the percentage of female servicemembers in the Air Force remained higher in each year than in the three other services over that 15 year period. The Navy and the Marine Corps experienced larger increases in their overall percentages of female active-duty servicemembers from fiscal year 2004 through fiscal year 2018. For example, the overall percentage of female active-duty servicemembers in the Navy increased by 4.9 percentage points, from 14.7 percent in fiscal year 2004 to 19.6 percent in fiscal year 2018. The Marine Corps experienced an increase of 2.5 percentage points in that same time period, from 6.1 percent in fiscal year 2004 to 8.6 percent in fiscal year 2018. Figure 3 shows the percentage of female active-duty servicemembers across all services in select years from fiscal years 2004 through 2018, by their organization.

**Figure 3: Female Active-Duty Servicemember Representation, by Organization, for Select Years (fiscal years 2004- 2018)**



Source: GAO analysis of of Department of Defense data. | GAO-20-61

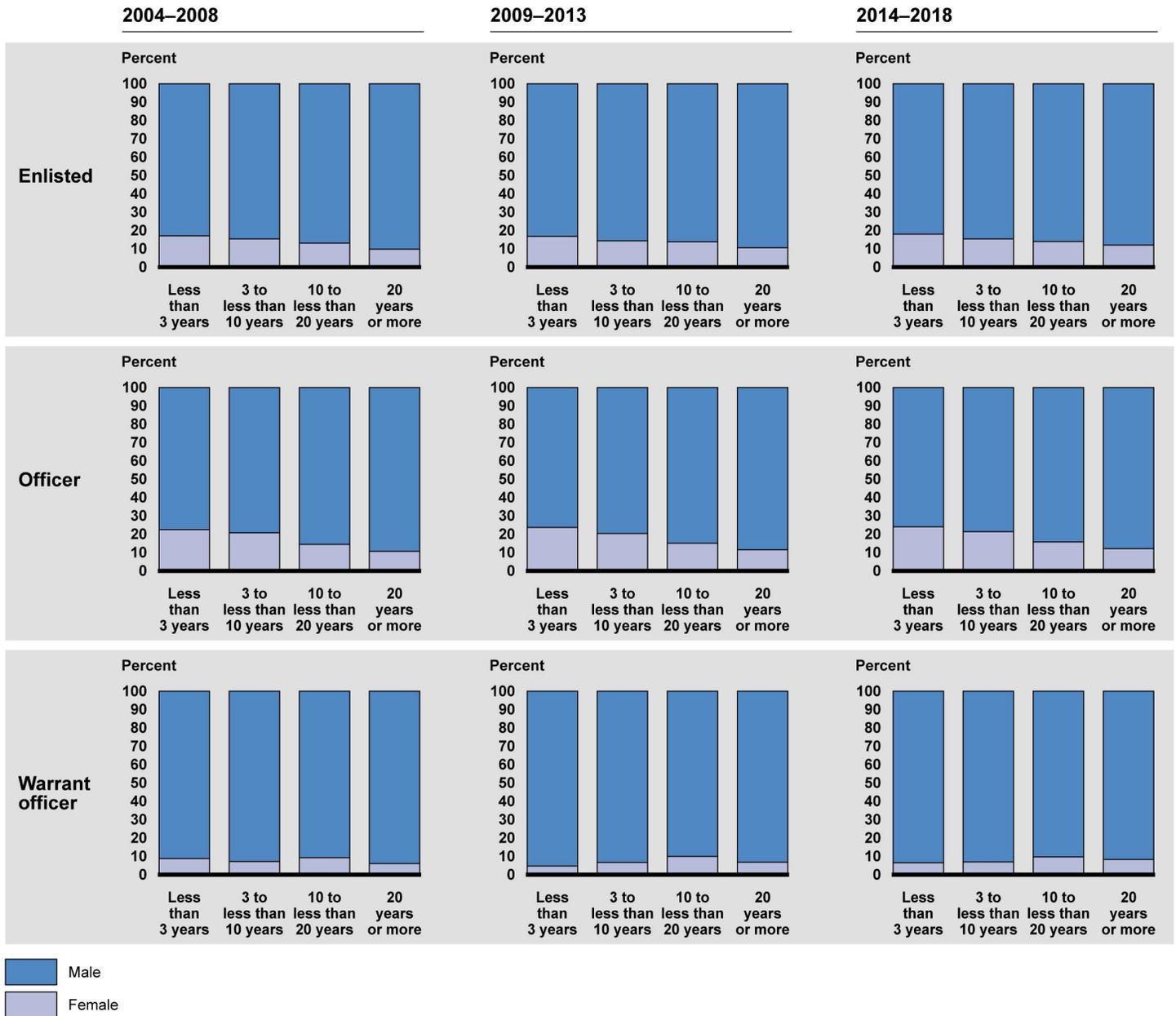
We also found that although the percentage of female active-duty servicemembers generally increased across the department from fiscal year 2004 through 2018, the percentage of female active-duty servicemembers was higher for those with fewer years of service and generally decreased as years of service increased. Specifically, as figure 4 shows, the percentages of female enlisted and commissioned officers in

<sup>33</sup>The percentage of female active-duty servicemembers in the Air Force was 0.4 percentage points higher in fiscal year 2018 than it was in fiscal year 2004. The overall percentage of female active-duty servicemembers in the Army was 0.2 percentage points lower in fiscal year 2018 than it was in fiscal year 2004.

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all four services with either 10 to 20 years of service or 20 or more years of service were generally lower than those with less than 10 years of service. We also found that the percentages of women with more years of service were higher in more recent years, specifically in fiscal years 2014 through 2018 as compared to fiscal years 2004 through 2009. For example, in fiscal years 2014 through 2018, the percentage of female enlisted with 20 or more years of service (12 percent) was 2.2 percent higher than the percentage of female enlisted in fiscal years 2004 through 2009 (9.8 percent). Similarly, the percentage of female commissioned officers with 20 or more years of service in fiscal years 2014 through 2018 (12.1 percent) was 1.4 percent higher than female commissioned officers with the same length of service in fiscal years 2004 through 2009 (10.7 percent). In addition, the percentage of female warrant officers with 20 or more years of service in fiscal years 2014 through 2018 (8.3 percent) was 2.3 percent higher than female commissioned officers with the same length of service in fiscal years 2004 through 2009 (6 percent).

**Figure 4: Percentages of Male and Female Active-Duty Servicemembers, by Years of Service and Pay Grade, Fiscal Years 2004-2018**



Source: GAO analysis of of Department of Defense data. | GAO-20-61

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## Female Enlisted and Commissioned Officers Had Higher Attrition Rates than Males during Fiscal Year 2004 through 2018 and Are Generally More Likely to Separate Due to a Variety of Factors According to Data

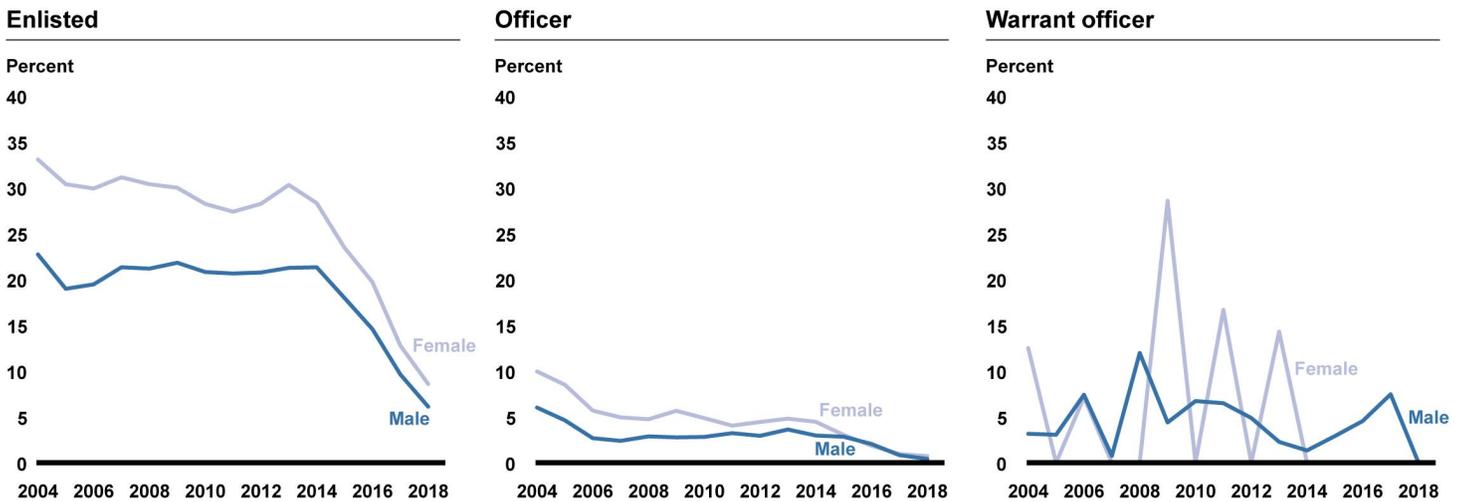
From fiscal year 2004 through 2018, female active-duty enlisted servicemembers and commissioned officers had higher annual attrition rates than corresponding males during that same time period. However, the gaps between male and female attrition rates for enlisted and commissioned officers have narrowed in more recent years.<sup>34</sup> Specifically, for fiscal years 2004 and 2018, enlisted female active-duty servicemembers' annual attrition rates were 33.1 and 8.6 percent, respectively. In fiscal years 2004 and 2018, enlisted male active-duty servicemembers' annual attrition rates were 22.7 and 6.1 percent, respectively.

For fiscal years 2004 and 2018, female commissioned officer annual attrition rates were 10 and 0.7 percent respectively, while male commissioned officer annual attrition rates were 6 and 0.4 percent in those same years, respectively. In fiscal years 2004 and 2018, female warrant officer annual attrition rates were 12.5 and 0 percent, and male warrant officer annual attrition rates were 3.2 and 0 percent in fiscal years 2004 and 2018, respectively. Figure 5 shows active-duty servicemember annual attrition rates over time from 2004 through 2018, by gender and pay grade.

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<sup>34</sup>The attrition rate drops naturally in the most recent fiscal years because servicemembers may not have completed their obligations. We calculated enlisted servicemember attrition rates as the percent of members that left the service more than 1 week before the completion of their term of service and counted those servicemembers in the year they joined the military. Commissioned officer and warrant officer attrition rates were calculated as the percent of members that left service within their first 3 years.

**Figure 5: Active-Duty Servicemember Annual Attrition Rates by Gender and Pay Grade, Fiscal Years 2004-2018**



Source: GAO analysis of of Department of Defense data. | GAO-20-61

Note: The attrition rate drops naturally in the most recent fiscal years because servicemembers may not have completed their obligations. We calculated enlisted attrition rates as the percent of members that left the service more than 1 week before the completion of their term of service and counted those servicemembers in the year they joined the military. Commissioned officer and warrant officer attrition rates were calculated as the percent of members that left service within their first 3 years.

Additionally, we developed a set of statistical models—all discrete time duration analysis—using data from fiscal years 2004 through 2018 which accounted for active-duty servicemembers’ time in service (i.e., the period of time from when they joined the military until their separation).<sup>35</sup> The models estimated the association of gender with separation. We accounted for specific servicemember characteristics, such as gender, branch of military service, pay grade, race or ethnicity, marital status, and the existence of dependents to estimate the associations that these

<sup>35</sup>In our analysis, separations include those who separated from the military for various reasons other than retirement or death. We used a duration-analysis method to examine the association in the likelihood of separations across different characteristic groups. While the annual attrition rates summarize the number of enlisted servicemembers who separated from the military more than 1 week before the completion of their term of service and officers who left the military prior to completing 3 years of service, the likelihood of separation considers the entire duration of service for military servicemembers until they separate from the military.

characteristics have with active-duty servicemembers separating from the service.<sup>36</sup>

The results of our statistical models show that female active-duty servicemembers are more likely to separate from the military than males at any given period of time in service. The average estimated likelihood of female active-duty servicemembers' separation for each quarter year of time in service is 2.3 percent, while the average estimate for male active-duty servicemembers is 1.8 percent. In relative terms, the likelihood of separation for female active-duty servicemembers is 28 percent higher than the likelihood of separation for male active-duty servicemembers.<sup>37</sup> When controlling for various individual and occupational characteristics—including pay grade categories, marital status, race or ethnicity, education level, occupation, and whether the servicemember has dependents—among others—female active-duty servicemembers' average estimated likelihood of separating from the military per quarter year of time in service ranges from 1.8 percent to 3.1 percent, depending on their branch of service, while that for their male counterparts ranges from 1.4 percent to 2.3 percent, if other personal characteristics remain the same.<sup>38</sup> In relative terms, the likelihood of separation for female active-duty servicemembers is estimated to be 13 to 46 percent higher than that of

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<sup>36</sup>In addition to controlling for gender, branch of military service, pay grade, race or ethnicity, marital status, and the existence of dependents, we also controlled for additional individual and occupational factors. These additional factors included having a bachelor's or higher education degree, overseas duty location, occupation, fiscal years, and servicemembers' time in service. Our analysis could not control for all factors that may be associated with separation—such as labor market conditions—and it does not establish a causal relationship. Additional inquiry into each of the observed separation cases would be needed to determine whether there are additional factors that drive these disparities of separation and those that are also associated with different demographic groups in each of these cases.

<sup>37</sup>The percentage differences of the likelihood of separation in relative terms are calculated using odds ratios from our duration analysis. See appendix IV for additional detail regarding the calculation of odds ratios.

<sup>38</sup>The estimated average likelihood of separation per quarter year of time in service for women are 3.1 percent in the Army, 1.8 percent in the Navy, 2 percent in the Marine Corps, and 1.8 percent in the Air Force. The estimated average likelihood of separation of men are, 2.3 percent in the Army, 1.4 percent in the Navy, 1.4 percent in the Marine Corps, and 1.6 percent in the Air Force. Standard errors of these estimates are smaller than or equal to 0.02 percent.

their male counterparts.<sup>39</sup> Based on our statistical models, we also found the following by particular characteristics:<sup>40</sup>

- **Married versus unmarried<sup>41</sup> without dependents:** In all of the services, both female and male married active-duty servicemembers without dependents are more likely to separate from the military than unmarried male and female active-duty servicemembers without dependents. For example, the likelihood of separation for both female and male married active-duty servicemembers without dependents in the Air Force and the Navy are twice as high as male and female unmarried active-duty servicemembers without dependents in the same services.<sup>42</sup>
- **Married with dependents versus unmarried without dependents:** Married male active-duty servicemembers with dependents in all of the services except the Air Force are less likely to separate from the military than unmarried males without dependents.<sup>43</sup> However, married female active-duty servicemembers who have dependents and are serving in the Army, the Navy, and the Air Force are more likely to separate compared to unmarried female active-duty servicemembers without dependents.<sup>44</sup> For example, in the Navy, the likelihood of separation for married female active-duty

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<sup>39</sup>The percentage differences of the likelihood of separation are 36 percent in the Army, 30 percent in the Navy, 46 percent in the Marine Corps, and 13 percent in the Air Force. Standard errors of these estimates are smaller than or equal to 1.3 percent.

<sup>40</sup>We provide a full analysis and comparison of active-duty servicemember separations with characteristics in appendix IV.

<sup>41</sup>In our analysis, we define the unmarried category as those with a marital status code of anything other than married, which would include never married or divorced.

<sup>42</sup>In the Air Force, the likelihood of separation for females married without dependents is 98 percent higher than that for females unmarried without dependents, and the likelihood of separation for males married without dependents is 97 percent higher than that for males unmarried without dependents. In Navy, the likelihood of separation for females married without dependents is 116 percent higher than that for females unmarried without dependents, and the likelihood of separation for males married without dependents is 102 percent higher than that for males unmarried without dependents.

<sup>43</sup>Married male servicemembers with dependents in the Air Force are 2 percent more likely to separate from the military than unmarried males without dependents.

<sup>44</sup>The likelihood of separation for female servicemembers with dependents in the Marine Corps is not statistically significantly different compared to single female servicemembers without dependents, meaning we could not conclude that there was a statistical difference between married female servicemembers with dependents and single female servicemembers without dependents.

servicemembers who have dependents is 17 percent higher relative to that for unmarried female active-duty servicemembers without dependents.<sup>45</sup> Comparatively, we estimate that the likelihood of separation for married male active-duty servicemembers in the Navy who have dependents is 28 percent lower than the likelihood of separation for unmarried male active-duty servicemembers in the Navy who do not have dependents.

- **Unmarried with dependents versus unmarried without dependents:** In all four services, unmarried female active-duty servicemembers who have dependents are more likely to separate from the military than their unmarried counterparts who do not have dependents. Our analysis produced similar results for unmarried male active-duty servicemembers with dependents, except for those serving in the Navy, who we found are less likely to separate than unmarried male active-duty servicemembers without dependents. More specifically, we estimate that the likelihood of separation for unmarried male and female active-duty servicemembers who have dependents and serve in the Army, Marine Corps, or Air Force, is from 9 percent to 32 percent higher than that for their unmarried male and female counterparts who do not have dependents. Further, we estimate that the likelihood of separation for unmarried female active-duty servicemembers who are serving in the Navy and who have dependents is 35 percent higher relative to the likelihood of separation for those female servicemembers who serve in the Navy and are unmarried and do not have dependents.<sup>46</sup>
- **Pay grade categories:** Our analysis found that enlisted male and female active-duty servicemembers in all of the services are more likely to separate from the military than male and female active-duty officers and warrant officers within the same service.<sup>47</sup> For example, we estimate that the likelihood of separation for male and female officers serving in the Navy is 62 and 63 percent lower, respectively,

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<sup>45</sup>In the Navy, we estimate that the average quarterly likelihood of separation of married female active-duty servicemembers who have dependents is 1.9 percent, while that of single female active-duty servicemembers without dependents is 1.6 percent.

<sup>46</sup>For reference, the likelihood of separation for unmarried male active-duty servicemembers who serve in the Navy and have dependents is 11 percent lower than the likelihood of separation of their unmarried counterparts in the Navy who do not have dependents.

<sup>47</sup>The likelihood of separation for female warrant officers in the Marine Corps is not statistically significantly different compared to female enlisted in the Marine Corps.

relative to the likelihood of separation for enlisted male and female active-duty servicemembers serving in the Navy.

- **Race or ethnicity minority groups versus whites:** In all of the services, black and Hispanic female active-duty servicemembers are less likely to separate from the military than white female active-duty servicemembers. All other racial or ethnic minority female active-duty servicemembers are also less likely to separate from the military than white female active-duty servicemembers except in the Army.<sup>48</sup> More specifically, we estimate that black, Hispanic, and all other racial or ethnic minority female active-duty servicemembers in all of the services (except in the Army) are at least 13 percent less likely to separate from the military relative to white female active-duty servicemembers. All other racial or ethnic minority female active-duty servicemembers (except black and Hispanic) serving in the Army are estimated to be 26 percent more likely to separate from the military relative to white female active-duty servicemembers.

In 2011, the Military Leadership Diversity Commission's final report discussed explanations for discrepancies in representation among senior military leaders, including lower retention of mid-level female enlisted and officer servicemembers.<sup>49</sup> Additionally, OSD officials stated that, in 2017, ODEI conducted an assessment of diversity and inclusion among officers that analyzed fiscal year 2012 through 2016 data to determine whether there was a difference between male and female retention within each of the services. According to DOD, ODEI found various increases and decreases in female retention; however, the officials stated that the assessment did not include an analysis to identify the reasons for the differences in retention among female servicemembers within the services.

In its 2017 and 2018 reports, DACOWITS identified dual-military couples as facing retention challenges and the 2017 report stated that, proportionally, more female servicemembers are married to a military

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<sup>48</sup>Other racial or ethnic minority refers to racial or ethnic minorities other than black or Hispanic. While the odds of separation for black male servicemembers in all of the services are higher than white male servicemembers in all of the services, black female servicemembers in all of the services have lower odds of separation than white female servicemembers in all of the services.

<sup>49</sup>Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military* (Arlington, VA: Mar. 15, 2011).

spouse than are male servicemembers.<sup>50</sup> Additionally, in the 2017 report, DACOWITS stated that servicemembers who are separated from the military because of issues related to parenthood, including family care plans, are disproportionately female.<sup>51</sup> The DACOWITS report further stated that, according to data provided to DACOWITS by the services, between fiscal year 2007 and 2016, female servicemembers represented between 65 and 83 percent of parenthood-related discharges.

We also analyzed 15 years of separation code data (fiscal years 2004 to 2018) to identify the documented reasons why active-duty servicemembers separated from the military during that time.<sup>52</sup> Our analysis of these data found that the reasons active-duty servicemembers separate from the military vary slightly based on gender, pay grade category, and length of service, as well as by time period. For example, misconduct was a top reason for separation from 2004 through 2013 for enlisted male servicemembers with 5 or fewer years of service, whereas pregnancy was one of the top three reasons for separation for female enlisted with 5 or fewer years of service, during that same period. However, neither misconduct for male servicemembers nor pregnancy for female servicemembers were found to be in the top three reasons for separation in fiscal years 2014-2018. The results of this analysis are shown below in figures 6, 7, and 8.

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<sup>50</sup>According to the DACOWITS' 2017 Annual Report, nearly half of married active-duty female servicemembers (44.9 percent) have spouses also serving in the military. DACOWITS further reported that research indicates that dual-military members are at particular risk of decreased retention. The 2017 report further stated that there is some evidence to suggest that among dual-military marriages, servicewomen leave the military at higher rates than their male spouses. Defense Advisory Committee on Women in the Services (DACOWITS), *2018 Annual Report* (Dec. 11, 2018) and *2017 Annual Report* (Dec. 12, 2017).

<sup>51</sup>DACOWITS, *2017 Annual Report* (Dec. 12, 2017).

<sup>52</sup>Separation program designator (SPD) codes are three-character combinations, shown on DOD's DD Form 214, *Certificate of Release or Discharge from Active-Duty*, which identify reasons for, and types of, separation from the military.

**Figure 6: The Three Most-Frequently Used Separation Codes of Enlisted Active-Duty Servicemembers by Gender and Years of Service, Fiscal Years 2004-2018**

|           |                          | Condition, not a disability <sup>e</sup> | Disability, not combat (IDES) | Disability, Permanent (IDES) | Disability, permanent (legacy DES) | Disability, severance pay (legacy DES) | Disability, temporary (IDES) | Disability, temporary (legacy DES) | Entry level performance and conduct | Failed medical/physical procurement standards | Miscellaneous/general reasons | Misconduct (drug abuse) | Misconduct (serious offense) | Parenthood or custody of minor children | Pregnancy or childbirth | Required active service <sup>b</sup> | Sufficient service for retirement <sup>c</sup> |   |
|-----------|--------------------------|--|-------------------------------|------------------------------|------------------------------------|--|------------------------------|------------------------------------|-------------------------------------|---|-------------------------------|-------------------------|------------------------------|---|-------------------------|--------------------------------------|--|---|
| 2004-2008 | Less than 3 years        | Female                                   | ●                             |                              |                                    | ●                                      |                              |                                    |                                     |   |                               |                         |                              |   | ●                       |                                      |  |   |
|           |                          | Male                                     | ●                             |                              |                                    |  |                              |                                    |                                     |   |                               | ●                       | ●                            |   |                         |                                      |  |   |
|           | 3 to less than 5 years   | Female                                   |                               |                              |                                    | ●                                      |                              |                                    |                                     |   |                               |                         |                              | ●                                       | ●                       |                                      |  |   |
|           |                          | Male                                     |                               |                              |                                    | ●                                      |                              |                                    |                                     |   |                               | ●                       |                              |   |                         |                                      | ●  |   |
|           | 5 to less than 10 years  | Female                                   |                               |                              |                                    | ●                                      |                              |                                    |                                     |   |                               |                         |                              | ●                                       |                         |                                      | ●  |   |
|           |                          | Male                                     |                               |                              |                                    | ●                                      | ●                            |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  |   |
|           | 10 to less than 20 years | Female                                   |                               |                              |                                    | ●                                      |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           |                          | Male                                     |                               |                              |                                    | ●                                      |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           | More than 20 years       | Female                                   |                               |                              | ●                                  |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           |                          | Male                                     |                               |                              | ●                                  |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
| 2009-2013 | Less than 3 years        | Female                                   | ●                             |                              |                                    |  |                              |                                    | ●                                   |   |                               |                         |                              |   | ●                       |                                      |  |   |
|           |                          | Male                                     | ●                             |                              |                                    |  |                              |                                    | ●                                   |   |                               |                         |                              |   |                         |                                      |  |   |
|           | 3 to less than 5 years   | Female                                   |                               |                              |                                    |  |                              |                                    |                                     |   |                               |                         |                              | ●                                       | ●                       | ●                                    |  |   |
|           |                          | Male                                     |                               |                              |                                    |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      | ●  |   |
|           | 5 to less than 10 years  | Female                                   |                               |                              |                                    |  |                              |                                    |                                     |   |                               |                         |                              | ●                                       | ●                       | ●                                    |  |   |
|           |                          | Male                                     |                               |                              | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      | ●  |   |
|           | 10 to less than 20 years | Female                                   |                               | ●                            |                                    |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           |                          | Male                                     |                               | ●                            |                                    |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           | More than 20 years       | Female                                   |                               | ●                            | ●                                  |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      |  | ● |
|           |                          | Male                                     |                               | ●                            | ●                                  |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      |  | ● |
| 2014-2018 | Less than 3 years        | Female                                   | ●                             |                              |                                    |  |                              |                                    | ●                                   | ●   |                               |                         |                              |   |                         |                                      |  |   |
|           |                          | Male                                     | ●                             |                              |                                    |  |                              |                                    | ●                                   | ●   |                               |                         |                              |   |                         |                                      |  |   |
|           | 3 to less than 5 years   | Female                                   |                               | ●                            | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      |  |   |
|           |                          | Male                                     |                               | ●                            | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      |  |   |
|           | 5 to less than 10 years  | Female                                   |                               |                              | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      | ●  |   |
|           |                          | Male                                     |                               |                              | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      | ●  |   |
|           | 10 to less than 20 years | Female                                   |                               |                              | ●                                  |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           |                          | Male                                     |                               |                              | ●                                  |  |                              |                                    |                                     |   |                               |                         |                              |   |                         |                                      | ●  | ● |
|           | More than 20 years       | Female                                   |                               |                              | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      |  | ● |
|           |                          | Male                                     |                               |                              | ●                                  |  |                              | ●                                  |                                     |   |                               |                         |                              |   |                         |                                      |  | ● |

● One of the three most identified reasons for separation for that combination of years of service and gender.

DES Disability Evaluation System  
 IDES Integrated Disability Evaluation System

Source: GAO analysis of of Department of Defense data. | GAO-20-61

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Note: We developed the years of service ranges based on career milestones such as first active-duty service term and number of years to retirement. In addition, we developed the 5 year date ranges to create groupings within the 15 years of separation data.

<sup>a</sup>DOD defines this separation code as a condition that is not a physical or mental disability, which interferes with performance of duty such as motion sickness, allergy, obesity, or fear of flying.

<sup>b</sup>DOD defines this separation code as completion of required active service.

<sup>c</sup>DOD defines this separation code as the servicemember has attained sufficient service for immediate retirement with pay.

**Figure 7: The Three Most-Frequently Used Separation Codes of Active-Duty Commissioned Officers by Gender and Years of Service, Fiscal Years 2004-2018**

|                    |                          | Condition, not a disability <sup>a</sup> | Disability, not combat (IDES) | Disability, permanent (IDES) | Disability, permanent (legacy DES) | Disability, severance pay (legacy DES) | Disability, temporary (IDES) | Disability, temporary (legacy DES) | Early retirement | Force shaping initiatives <sup>b</sup> | Miscellaneous/general reasons | Parenthood or custody of minor children | Pregnancy or childbirth | Reduction in force | Required active service <sup>c</sup> | Sufficient service for retirement <sup>d</sup> | Unacceptable conduct |
|--------------------|--------------------------|--|-------------------------------|------------------------------|------------------------------------|--|------------------------------|------------------------------------|------------------|--|-------------------------------|---|-------------------------|--------------------|--------------------------------------|--|----------------------|
| 2004-2008          | Less than 3 years        | Female                                   |                               |                              |                                    | ●                                      |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               |                              |                                    | ●                                      |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    | 3 to less than 5 years   | Female                                   |                               |                              |                                    | ●                                      |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               |                              |                                    | ●                                      |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    | 5 to less than 10 years  | Female                                   |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   | ●                       |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   | ●                       |                    | ●                                    |  |                      |
|                    | 10 to less than 20 years | Female                                   |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    | ●  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    | ●  |                      |
| More than 20 years | Female                   |  |                               | ●                            |                                    |  |                              |                                    |                  |  |                               |   |                         | ●                  | ●                                    |  |                      |
|                    | Male                     |  |                               | ●                            |                                    |  |                              |                                    |                  |  |                               |   |                         | ●                  | ●                                    |  |                      |
| 2009-2013          | Less than 3 years        | Female                                   |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  | ●                    |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  | ●                    |
|                    | 3 to less than 5 years   | Female                                   |                               |                              |                                    |  |                              | ●                                  |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  | ●                    |
|                    | 5 to less than 10 years  | Female                                   |                               |                              |                                    |  |                              |                                    | ●                |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  | ●                                      | ●                             |   |                         |                    | ●                                    |  |                      |
|                    | 10 to less than 20 years | Female                                   |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    | ●  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    | ●  |                      |
| More than 20 years | Female                   |  | ●                             |                              |                                    |  |                              |                                    |                  |  |                               |   |                         | ●                  | ●                                    |  |                      |
|                    | Male                     |  | ●                             |                              |                                    |  |                              |                                    |                  |  |                               |   |                         | ●                  | ●                                    |  |                      |
| 2014-2018          | Less than 3 years        | Female                                   |                               |                              |                                    |  | ●                            |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    |                  |  | ●                             |   | ●                       |                    | ●                                    |  |                      |
|                    | 3 to less than 5 years   | Female                                   |                               | ●                            |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               | ●                            |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    | 5 to less than 10 years  | Female                                   |                               | ●                            |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    |                          | Male                                     |                               | ●                            |                                    |  |                              |                                    |                  |  | ●                             |   |                         |                    | ●                                    |  |                      |
|                    | 10 to less than 20 years | Female                                   |                               |                              |                                    |  |                              |                                    | ●                |  |                               |   |                         |                    | ●                                    | ●  |                      |
|                    |                          | Male                                     |                               |                              |                                    |  |                              |                                    | ●                |  |                               |   |                         |                    | ●                                    | ●  |                      |
| More than 20 years | Female                   |  | ●                             |                              |                                    | ●                                      |                              |                                    |                  |  |                               |   |                         | ●                  | ●                                    |  |                      |
|                    | Male                     |  | ●                             |                              |                                    |  |                              |                                    |                  |  |                               |   |                         | ●                  | ●                                    |  |                      |

● One of the three most identified reasons for separation for that combination of years of service and gender.

DES Disability Evaluation System  
 IDES Integrated Disability Evaluation System

Source: GAO analysis of of Department of Defense data. | GAO-20-61

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Note: We developed the years of service ranges based on career milestones such as first active-duty service term and number of years to retirement. In addition, we developed the 5-year date ranges to create groupings within the 15 years of separation data.

<sup>a</sup>DOD defines this separation code as a condition that is not a physical or mental disability, which interferes with performance of duty such as motion sickness, allergy, obesity, or fear of flying.

<sup>b</sup>DOD defines this separation code as completion of required active service.

<sup>c</sup>DOD defines this separation code as the servicemember has attained sufficient service for immediate retirement with pay.

**Figure 8: The Three Most-Frequently Used Separation Codes of Active-Duty Warrant Officers by Gender and Years of Service, Fiscal Years 2004-2018**

|                    |                          | Condition not a disability <sup>a</sup> | Disability, existed prior to service (legacy DES) | Disability, permanent (IDES) | Disability, permanent (legacy DES) | Disability, severance pay (legacy DES) | Disability, temporary (IDES) | Disability, temporary (legacy DES) | Early retirement | Failure to complete a course of instruction | Miscellaneous/general reasons | Parenthood or custody of minor children | Pregnancy or childbirth | Required active service <sup>b</sup> | Substandard performance | Sufficient service for retirement | Unacceptable conduct |  |
|--------------------|--------------------------|---|---|------------------------------|------------------------------------|--|------------------------------|------------------------------------|------------------|---|-------------------------------|---|-------------------------|--------------------------------------|-------------------------|-----------------------------------|----------------------|--|
| 2004-2008          | Less than 3 years        | Female                                  |   |                              |                                    |  | ●                            |                                    |                  |   |                               |   |                         |                                      |                         | ●                                 |                      |  |
|                    |                          | Male                                    |   |                              |                                    |  | ●                            |                                    | ●                |   |                               |   |                         |                                      |                         | ●                                 |                      |  |
|                    | 3 to less than 5 years   | Female                                  | ●   |                              |                                    | ●                                      | ●                            |                                    |                  | ●   |                               |   |                         |                                      |                         |                                   |                      |  |
|                    |                          | Male                                    |   |                              |                                    | ●                                      |                              |                                    |                  | ●   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    | 5 to less than 10 years  | Female                                  |   |                              |                                    | ●                                      | ●                            | ●                                  |                  |   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    |                          | Male                                    |   |                              |                                    | ●                                      |                              | ●                                  |                  |   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    | 10 to less than 20 years | Female                                  |   |                              |                                    |  |                              | ●                                  |                  |   | ●                             |   |                         | ●                                    |                         | ●                                 | ●                    |  |
|                    |                          | Male                                    |   |                              |                                    |  |                              | ●                                  |                  |   | ●                             |   |                         |                                      |                         | ●                                 | ●                    |  |
| More than 20 years | Female                   |   |   | ●                            |                                    |  |                              |                                    |                  |   |                               |   | ●                       |                                      | ●                       | ●                                 |                      |  |
|                    | Male                     |   |   | ●                            |                                    |  |                              |                                    |                  |   |                               |   | ●                       |                                      | ●                       | ●                                 |                      |  |
| 2009-2013          | Less than 3 years        | Female                                  |   |                              |                                    |  |                              |                                    |                  | ●   |                               |   |                         |                                      |                         |                                   |                      |  |
|                    |                          | Male                                    |   |                              |                                    |  |                              |                                    |                  | ●   |                               |   |                         | ●                                    |                         | ●                                 |                      |  |
|                    | 3 to less than 5 years   | Female                                  |   |                              |                                    |  |                              |                                    |                  | ●   |                               |   |                         | ●                                    |                         |                                   |                      |  |
|                    |                          | Male                                    |   |                              |                                    |  |                              |                                    |                  | ●   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    | 5 to less than 10 years  | Female                                  |   |                              |                                    |  |                              |                                    |                  | ●   | ●                             |   |                         |                                      | ●                       |                                   |                      |  |
|                    |                          | Male                                    |   |                              |                                    |  |                              |                                    |                  | ●   | ●                             |   |                         |                                      | ●                       |                                   |                      |  |
|                    | 10 to less than 20 years | Female                                  |   |                              |                                    |  |                              |                                    | ●                |   | ●                             |   |                         |                                      |                         |                                   | ●                    |  |
|                    |                          | Male                                    |   |                              |                                    |  |                              |                                    | ●                |   | ●                             |   |                         |                                      |                         |                                   | ●                    |  |
| More than 20 years | Female                   |   | ●   |                              |                                    |  |                              |                                    |                  |   |                               |   | ●                       |                                      | ●                       | ●                                 |                      |  |
|                    | Male                     |   | ●   |                              |                                    |  |                              |                                    |                  |   |                               |   | ●                       |                                      | ●                       | ●                                 |                      |  |
| 2014-2018          | Less than 3 years        | Female                                  |   |                              |                                    |  |                              |                                    |                  |   |                               |   |                         |                                      |                         |                                   | ●                    |  |
|                    |                          | Male                                    |   |                              |                                    |  |                              |                                    | ●                | ●   |                               |   | ●                       |                                      |                         |                                   |                      |  |
|                    | 3 to less than 5 years   | Female                                  |   | ●                            |                                    |  | ●                            |                                    |                  | ●   |                               |   |                         |                                      |                         |                                   |                      |  |
|                    |                          | Male                                    |   | ●                            |                                    |  |                              |                                    |                  | ●   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    | 5 to less than 10 years  | Female                                  |   | ●                            |                                    |  | ●                            |                                    |                  |   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    |                          | Male                                    |   | ●                            |                                    |  | ●                            |                                    |                  |   | ●                             |   |                         |                                      |                         |                                   |                      |  |
|                    | 10 to less than 20 years | Female                                  |   | ●                            |                                    |  |                              |                                    |                  |   | ●                             |   |                         |                                      |                         |                                   | ●                    |  |
|                    |                          | Male                                    |   | ●                            |                                    |  |                              |                                    |                  |   | ●                             |   |                         |                                      |                         |                                   | ●                    |  |
| More than 20 years | Female                   |   | ●   |                              |                                    | ●                                      |                              |                                    |                  |   |                               |   |                         |                                      |                         | ●                                 |                      |  |
|                    | Male                     |   | ●   |                              |                                    | ●                                      |                              |                                    |                  |   |                               |   |                         |                                      |                         | ●                                 |                      |  |

● One of the three most identified reasons for separation for that combination of years of service and gender.  
 DES Disability Evaluation System  
 IDES Integrated Disability Evaluation System

Source: GAO analysis of Department of Defense data. | GAO-20-61

Note: For females with less than 3 years of service 2004 through 2008, there were two top frequently used separation codes. In addition, for females with less than 3 years of service and with 3 to less than 5 years of service from 2009 through 2013, there was one top frequently used separation code.

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Also, for females with less than three years of service from 2014 through 2018 there was one top frequently used separation code. We developed the years of service ranges based on career milestones such as first active-duty service term and number of years to retirement. In addition, the 5-year date ranges were developed by GAO to create groupings within the 15 years of separation data.

<sup>a</sup>DOD defines this separation code as a condition that is not a physical or mental disability, which interferes with performance of duty such as motion sickness, allergy, obesity, or fear of flying.

<sup>b</sup>DOD defines this separation code as completion of required active service.

<sup>c</sup>DOD defines this separation code as the servicemember has attained sufficient service for immediate retirement with pay.

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## Other Factors Identified in the Literature That Can Influence Female Active-Duty Servicemembers' Decisions to Separate from Military Service

To better understand other factors that may underlie a servicemember's decision to separate, we reviewed a variety of studies on female active-duty servicemember retention in the military. Through our review, we identified six factors that were reported to influence female active-duty servicemembers' separation from the military: work schedules, deployments, organizational culture, family planning, sexual assault, and dependent care.

**Work schedules.** Specifically, four of the six studies in our literature review cited work schedule as a reason for or factor influencing separation by female active-duty servicemembers. For example, in several studies female active-duty servicemembers cited the demands and uncertainty of their work schedules. In one study, which asked senior female enlisted Army personnel about the primary factors responsible for their decision to leave the military, a review of the participants' responses indicated that the primary factor responsible for female servicemembers exiting the service sooner than their male counterparts was that the female members believed they constantly had to sacrifice family time for their careers. In another study, former female active-duty naval surface warfare officers cited the uncertainty of their work schedules as having a strong influence on their decision to separate from the military.

**Deployments.** The occurrence of deployments and their effects on family life were also highlighted in four of the six studies as factors influencing female servicemembers' decisions to separate from the military. For example, one study of female Air Force pilots identified deployments as a factor that caused them to consider leaving active duty. In another study, which included 295 active-duty and reserve female officers in grades O-1 to O-5, participants in 94 percent of the 54 focus group mentioned

deployments as an important negative influence on retention, given their effect on spouses and children.

**Organizational culture.** Organizational culture also had an effect on female servicemembers' decisions to separate from the military in four of the six studies we reviewed. In one study, female active-duty, reserve, and Air National Guard officers in the Air Force mentioned the lack of female mentors and role models in leadership positions, and the experience of sexism as factors influencing the decision to separate. Female servicemembers also discussed how having leaders who are not supportive or understanding of family needs can contribute to a negative or toxic work environment. Study participants also noted that they often faced sexism and the existence of an "old boy's network," especially in career fields dominated by males. As such, these female servicemembers felt they had to work harder to prove themselves and also felt they were sometimes not treated equally because they were female.

**Family planning.** Three of the six studies in our literature review cited family planning as being another characteristic that influences separation for female active-duty servicemembers. In one study, female officers in a majority of focus groups (85 percent of 54 focus groups) mentioned issues related to pregnancy that could affect their decisions to stay in or leave the Air Force. More specifically, Air Force female officers (active duty, reserve, and Air National Guard) cited the difficulty of timing pregnancies to fit within rigid career timelines. These female servicemembers stated that they felt they needed to ensure that pregnancy occurred at certain times in their careers to minimize negative career effects. Even with that effort, the female servicemembers stated that negative effects still persisted due to missed opportunities while pregnant, such as in-residence professional military education, or career-field specific problems, such as loss of flying time for pilots.

**Sexual assault.** Two of the six studies in our literature review cited sexual assault as a reason for separation by female active-duty servicemembers. In one study, female military veterans mentioned both the occurrence of a sexual assault and how it was handled by the military as contributing to their separation. For example, two females stated that the perpetrator was not punished, and another woman cited the lack of support from other servicemembers as contributing to their decisions to separate from the military. In another study examining female officer retention (active duty, reserve, and Air National Guard) in the Air Force, a few participants cited cases in which either they or individuals they knew had decided to leave specifically because of a sexual assault.

Participants commented that female officers often do not want to report the incident, deciding instead to separate.

**Dependent care.** Two of the six studies in our literature review also mentioned challenges with dependent care as influencing female servicemembers' decisions to separate from the military. For example, in one study, female military veterans cited difficulties being separated from their children for long time periods as a reason for ending military service. These difficulties were both emotional and practical, including limited stable and safe placement options for children while mothers were deployed. In another study, female Air Force officers in 59 percent of 54 focus groups stated that difficulties with childcare development centers on military bases—including service hours that were incompatible with their work schedules, inconsistent quality of care, and long waitlists—could influence their separation decisions. Participants in that study's focus groups stated that childcare development centers often have limited hours that make it difficult to coordinate childcare with long work hours or shift work. For example, according to the study's focus group participants, pilots are sometimes required to fly at night and regularly need overnight child care, outside of typical childcare development center hours. Further, participants stated that some female servicemembers also raised concerns about the quality of care at childcare development centers, noting that the quality of employees is not consistent across locations and that the childcare development centers generally do not provide day-care services that include educational activities to enhance children's learning, unlike some off-base options. In addition, some female servicemembers in that same study's focus groups cited problems setting up childcare with childcare development centers before the end of their maternity leave due to lengthy wait lists.

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## Promotion Rates from Fiscal Year 2004 through 2018 Varied by Gender for Enlisted and Officers, and the Likelihood of Promotion Differs by Demographic Factors

Our analyses determined that for fiscal years 2004 through 2018, female active-duty servicemember promotion rates were slightly lower for enlisted in most years, but higher for officers as compared to their male counterparts. We also found that the percentage of promotions for eligible female and male active-duty servicemembers decreases at certain grade

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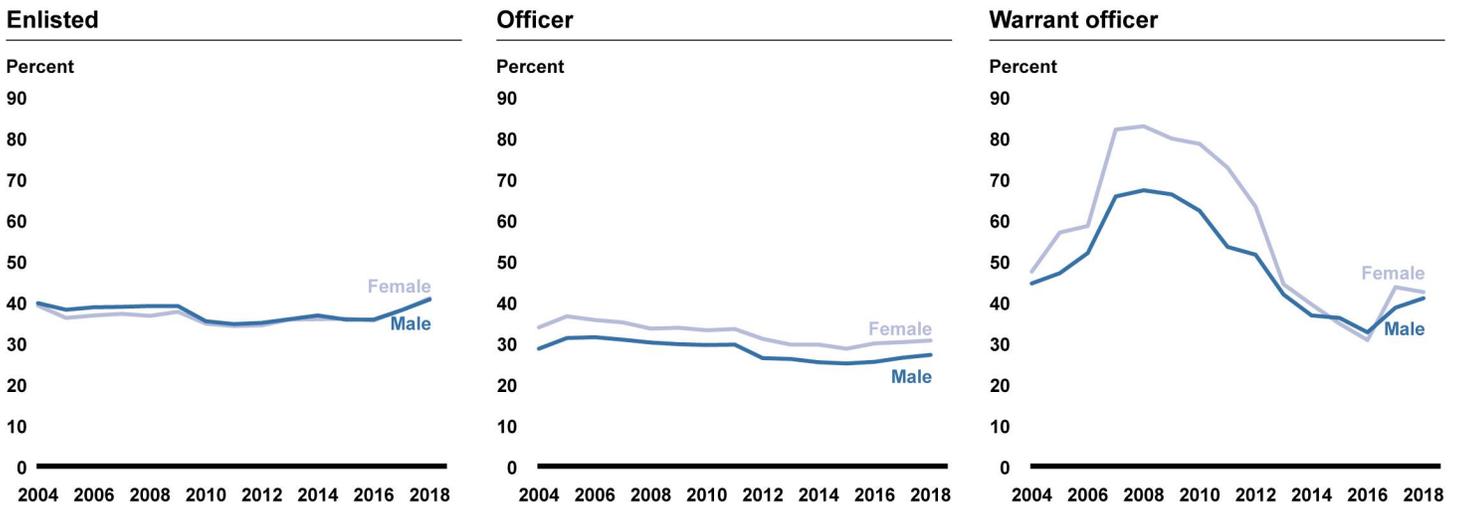
levels, and the likelihood of promotion varies across certain characteristics, including gender and pay grade.

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### Promotion Rates for Female Enlisted Were Slightly Lower, While Promotion Rates for Female Officers Were Slightly Higher Than Males from Fiscal Years 2004 through 2018

Overall, we estimated that in most years from fiscal years 2004 through 2018, promotion rates for female enlisted active-duty servicemembers were slightly lower than those for male enlisted active-duty servicemembers. Specifically, female enlisted promotion rates were lower than male enlisted promotion rates by a range of 0.1 percentage points to 2.5 percentage points during much of that time period. However, in fiscal years 2015 and 2018, female enlisted promotion rates were higher than their male counterparts by 0.1 percentage points and 0.4 percentage points, respectively. In contrast, female commissioned officers had higher promotion rates than male commissioned officers each year during that same period. Specifically, from fiscal years 2004 through 2018, female commissioned officer promotion rates ranged from 3.3 to 5.3 percentage points higher than male commissioned officer promotion rates. Similarly, from fiscal year 2004 through 2018, female warrant officer promotion rates were higher—a range of 1.5 to 19.3 percentage points—than male warrant officer promotion rates in most years. However, in fiscal years 2015 and 2016, promotion rates for male warrant officers were higher by 1.4 percentage points and 1.9 percentage points, respectively. Figure 9 shows active-duty servicemember annual promotion rates over time, by gender and pay grade category, for fiscal years 2004 through 2018. We also present additional data in appendix III on servicemember promotion rates in fiscal years 2004 through 2018.

**Figure 9: Active-Duty Servicemember Annual Promotion Rates by Gender and Pay Grade, Fiscal Years 2004-2018**



Source: GAO analysis of of Department of Defense data. | GAO-20-61

The 2017 DACOWITS report stated that female servicemembers are particularly underrepresented in military leadership and, as of July 2017, the percentages of female servicemembers in the highest ranks were much lower than in the lowest ranks, particularly among officers.<sup>53</sup> Further, according to DACOWITS, the percentage of female servicemembers declined by nearly two-thirds from the lowest to highest-ranking commissioned officer position, and by nearly half from the lowest to highest-ranking enlisted position.<sup>54</sup> Through our analysis of DMDC data, we found a similar trend in 2018 with the percentage of female servicemembers declining by nearly three quarters from the lowest to highest-ranking commissioned officer positions (21 percent to 5.4 percent). Additionally, the trend was also similar for enlisted personnel for which the percentage of female enlisted declined by nearly half from the lowest to highest-ranking positions (16.6 percent to 9.1 percent).

<sup>53</sup>DACOWITS, *2017 Annual Report* (Dec. 12, 2017).

<sup>54</sup>According to the 2017 DACOWITS study, in July 2017 warrant officers made up 1.5 percent of the military, and females represented 9.0 percent of WO-1s and 7.0 percent of WO-5s.

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## The Likelihood of Servicemember Promotion Varies across Demographic Groups, Including Gender and Other Factors

Based on our discrete time duration analysis, we estimated that promotion rates may vary for female active-duty servicemembers relative to their male counterparts across the services, after adjusting for certain demographic and occupation-specific factors, including gender, time in service, branch of service, pay grade, marital status, and whether the active-duty servicemember has dependents.<sup>55</sup> We estimated that in the Navy, enlisted female active-duty servicemembers may have a lower likelihood of promotion than their male counterparts, whereas the evidence is mixed for the Army, the Marine Corps, and the Air Force after controlling for certain individual- and occupation-level characteristics. Figure 10 presents the likelihood of female promotion as compared to males when controlling for time in service, while figure 11 presents the difference in likelihood of promotion when controlling for various demographic factors.

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<sup>55</sup>Our analysis could not control for all factors that may be associated with promotion—such as a servicemember’s performance—and it does not establish a causal relationship. Our analysis also does not model the promotion process at DOD. Additional inquiry into each of the observed promotion cases would be needed to determine whether there are additional factors that drive these differences in promotion and those that are also associated with different demographic groups in each of these cases.

**Figure 10: Likelihood of Promotion of Female Compared to Male Active-Duty Servicemembers, by Pay Grade and Controlling for Time in Service**

| Pay grade                    |             | Army | Navy | Marine Corps | Air Force |
|------------------------------|-------------|------|------|--------------|-----------|
| Enlisted                     | E-1 to E-2  | ▼    | ▼    | ▼            | ▲         |
|                              | E-2 to E-3  | ▼    | ▼    | ▼            | —         |
|                              | E-3 to E-4  | ▼    | ▼    | ▲            | ▲         |
|                              | E-4 to E-5  | ▼    | ▼    | ▼            | ▲         |
|                              | E-5 to E-6  | ▼    | ▼    | ▲            | ▼         |
|                              | E-6 to E-7  | ▲    | ▼    | —            | ▼         |
|                              | E-7 to E-8  | —    | ▼    | ▼            | ▲         |
|                              | E-8 to E-9  | ▼    | —    | ▼            | ▼         |
| Officer                      | O-1 to O-2  | —    | ▲    | ▼            | ▲         |
|                              | O-2 to O-3  | —    | ▼    | ▼            | ▲         |
|                              | O-3 to O-4  | ▼    | ▼    | —            | n/a       |
|                              | O-4 to O-5  | ▼    | ▼    | ▼            | ▼         |
|                              | O-5 to O-6  | ▼    | ▲    | —            | —         |
|                              | O-6 to O-7  | ▼    | ▼    | —            | ▼         |
|                              | O-7 to O-8  | —    | —    | —            | —         |
|                              | O-8 to O-9  | —    | —    | —            | —         |
|                              | O-9 to O-10 | —    | —    | n/a          | —         |
| Warrant officer <sup>a</sup> | W-1 to W-2  | —    | —    | —            |           |
|                              | W-2 to W-3  | ▲    | —    | ▼            |           |
|                              | W-3 to W-4  | —    | —    | —            |           |
|                              | W-4 to W-5  | —    | n/a  | —            |           |

▲ Females were more likely than males to be promoted at a 95% confidence level (12 instances)

▼ Females were less likely than males to be promoted at a 95% confidence level (35 instances)

— Not statistically significant at a 95 percent confidence level and, therefore, we could not conclude that there was a statistical difference between males and females in the likelihood of promotion (30 instances)

n/a We could not estimate the likelihoods of females' promotion due to small number of females in the higher pay grades and other data limitations (3 instances)

Source: GAO analysis of Department of Defense data. | GAO-20-61

Note: We conducted a discrete time duration analysis for each promotion stage (for example, promotion from E1 to E2, and E2 to E3 in the Air force).

<sup>a</sup>The Air Force does not have warrant officers.

**Figure 11: Likelihood of Promotion of Female Compared to Male Active-Duty Servicemembers, by Pay Grade and Controlling for Time in Service and Various Factors**

| Pay grade  |             | Army | Navy | Marine Corps | Air Force |
|--|-------------|------|------|--------------|-----------|
| <b>Enlisted set 1</b><br>(control factors: female, married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, occupation, fiscal year, and time in service at the same grade)                    | E-1 to E-2  | ▼    | ▼    | ▼            | ▲         |
|  | E-2 to E-3  | ▼    | ▲    | —            | —         |
|  | E-3 to E-4  | ▼    | ▼    | ▼            | ▲         |
|  | E-4 to E-5  | ▲    | ▼    | —            | ▲         |
|  | E-5 to E-6  | ▲    | ▼    | —            | ▼         |
| <b>Enlisted set 2</b><br>(control factors: female, married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, fiscal year, and time on service at the same grade)                                | E-6 to E-7  | ▲    | —    | ▲            | ▲         |
|  | E-7 to E-8  | ▲    | ▼    | —            | ▲         |
|  | E-8 to E-9  | ▼    | —    | ▼            | —         |
| <b>Officer set 1</b><br>(control factors: female, married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, occupation, fiscal year, and time in service at the same grade)                     | O-1 to O-2  | ▲    | ▼    | ▼            | ▲         |
|  | O-2 to O-3  | ▼    | ▼    | ▼            | —         |
| <b>Officer set 2</b><br>(control factors: female, racial or ethnic minority, assignment to overseas duty location, and time in service at the same grade)  | O-3 to O-4  | ▼    | —    | —            | ▼         |
|  | O-4 to O-5  | —    | ▼    | —            | ▼         |
|  | O-5 to O-6  | ▼    | ▲    | —            | —         |
|  | O-6 to O-7  | ▼    | ▼    | —            | ▼         |
|  | O-7 to O-8  | —    | —    | —            | —         |
|  | O-8 to O-9  | —    | —    | —            | —         |
|  | O-9 to O-10 | —    | —    | n/a          | —         |
| <b>Warrant officer set 1<sup>a</sup></b><br>(control factors: female, married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, occupation, fiscal year, and time in service at the same grade) | W-1 to W-2  | —    | n/a  | —            | —         |
|  | W-2 to W-3  | ▲    | —    | —            | —         |
| <b>Warrant officer set 2<sup>a</sup></b><br>(control factors: female, racial or ethnic minority, assignment to overseas duty location, and time in service at the same grade)  | W-3 to W-4  | —    | —    | —            | —         |
|  | W-4 to W-5  | —    | n/a  | —            | —         |

▲ Females were more likely than males to be promoted at a 95% confidence level (15 instances)

▼ Females were less likely than males to be promoted at a 95% confidence level (26 instances)

— Not statistically significant at a 95 percent confidence level and, therefore, we could not conclude that there was a statistical difference between males and females in the likelihood of promotion (36 instances)

n/a We could not estimate the likelihoods of females' promotion due to small number of females in the higher pay grades and other data limitations (3 instances)

Source: GAO analysis of Department of Defense data. | GAO-20-61

Note: We conducted a discrete time duration analysis for each promotion stage (for example, promotion from E1 to E2, and E2 to E3 in the Air force). Because the number of female servicemembers in each service decreases as pay grades go up, we adjusted the sets of control variables to make reliable estimates.

<sup>a</sup>The Air Force does not have warrant officers.

Officials from the Service Women's Action Network told us that, with regard to career progression, the rigidity and timing of some job requirements for certain military occupational specialties are not conducive to becoming pregnant or raising a young family. Specifically, these officials stated that such requirements—for example, Naval surface warfare tours—often occur at the time in a female active-duty servicemember's life when she may try to become pregnant or have young children. However, according to these officials, such tours must occur at these specific points in one's career in order to get promoted.

Similarly, the Military Leadership Diversity Commission reported in its 2011 final report that, although the services do not have a checklist of assignments required for promotion, each service, community, and career

field has a notional career path comprising key work and educational assignments, including leadership and staff assignments early on in one's career, holding command assignments, meeting certain educational milestones, and holding executive officer or assistant positions to current flag or general officers.<sup>56</sup> Further, the report stated that women and minorities face barriers to serving in such key assignments which can affect their ability to reach senior leadership ranks. The Military Leadership Diversity Commission also reported that one barrier may include lack of sufficient knowledge about these key assignment opportunities, perhaps because women and minorities may not receive the same career counselling or mentoring about key assignments as their white male counterparts.

DOD officials stated that as part of the 2017 ODEI assessment, female promotion rates were also analyzed across the services. According to those officials, the assessment found variations in promotion rates from fiscal year 2012 through fiscal year 2016 among female servicemembers; however officials also stated that the assessment did not include an analysis to identify the reasons for the differences in promotion rates among female and male servicemembers.

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## DOD Identified Female Recruitment and Retention as Important to Diversity, but the Military Services Have Not Developed Plans to Guide and Monitor Such Efforts

DOD has identified that female recruitment and retention is important to diversity in the military, but the services do not have plans that include goals, performance measures, or timeframes to guide and monitor current or future efforts to recruit and retain female active-duty servicemembers. While recruiting is an important first step in building a diverse force and increasing the representation of female servicemembers, retention plays a similarly important role in maintaining that diversity once it is achieved.

DOD's 2012-2017 Diversity and Inclusion Strategic Plan, quoting the 2011 National Military Strategy, stated that the all-volunteer force must represent the country it defends and benefits immensely from the different

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<sup>56</sup>Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military* (Arlington, VA: Mar. 15, 2011).

perspectives and linguistic and cultural skills of all Americans.<sup>57</sup> According to ODEI officials, the department is currently updating its diversity and inclusion strategic plan to guide efforts through 2024. However, neither the 2012-2017 plan nor the draft updated plan, according to officials, has a focus on goals, such as recruitment or retention goals, for any one particular demographic group. Officials we interviewed stated that there is a general goal to recruit a force that reflects the makeup of the country it represents as a method for encouraging trust in the military among the population at large. However, according to OSD and service officials, the department emphasizes gender-neutral occupational standards and policies, with its focus on recruiting and retaining the best and brightest service members. Specifically, OSD officials stated that the department's priorities and goals are aimed at improving the retention and promotion rates of all active-duty servicemembers, while ongoing OSD efforts to evaluate diversity within the department focus more broadly on the overall state of diversity of both the military and civilian workforces.<sup>58</sup> OSD officials further stated that retention goals have, in the past, been misconstrued as quotas based on gender and, as such, the department does not set goals or targets for gender.

While we recognize the department's concern about goals being misconstrued as quotas, goals are not quotas and we have previously reported that quantitative and qualitative performance measures "help organizations translate their diversity aspirations into tangible practice."<sup>59</sup> For example, an organization can track data on its workforce to evaluate the effectiveness of the organization's diversity management efforts and

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<sup>57</sup>DOD, *Department of Defense Diversity and Inclusion Strategic Plan 2012-2017* (2012) (quoting DOD, *National Military Strategy of the United States of America 2011: Redefining America's Military Leadership* (Feb. 8, 2011). While the updated plan is still in draft form and, according to ODEI officials, not releasable at this time, we reviewed the draft strategic plan and the department's draft DOD Instruction for the DOD Diversity and Inclusion (D&I) Management Program.

<sup>58</sup>According to ODEI officials, the department has contracted with a private consulting firm to conduct a study—*Personnel Lifecycle of Diversity and Inclusion*—that intends to address the state of diversity across the total force. Upon completion, officials stated that the study will, among other things, identify the essential elements of an overall diversity and inclusion program that will attract and retain a diverse workforce while maintaining a culture of inclusivity and collaboration.

<sup>59</sup>See GAO, *Diversity Management: Expert-Identified Leading Practices and Agency Examples*, [GAO-05-90](#) (Washington, D.C.: Jan. 14, 2005).

the progress it is making in those efforts.<sup>60</sup> In addition to analyzing quantitative workforce data, we further reported that organizations can use qualitative data derived from interviews, focus groups, and surveys to identify employee perceptions—including available opportunities and work environment or culture—among various segments of their workforces.

In its 2017 report, DACOWITS stated that each of the military services experiences challenges retaining women to a varying degree, with a particularly wide gender gap in operational specialties.<sup>61</sup> DACOWITS' report further stated that concerns persist that this attrition will result in a disproportionate impact to mission readiness if left unresolved. DACOWITS has also made a number of recommendations specific to the services' efforts to address and increase female representation in the military through the use of goals and targets. For example, in 2014, DACOWITS recommended that the services should have targets to increase the representation of enlisted female servicemembers and that these targets should be benchmarked against the pool of eligible recruits.<sup>62</sup> Subsequently in 2015, DACOWITS recommended, among other things, that the services should set goals to systematically increase the representation of women in the officer and enlisted ranks.<sup>63</sup>

However, according to officials from the four services, the services currently do not have plans that include goals, performance measures, and timeframes to guide and monitor efforts to recruit and retain female servicemembers. For example, Marine Corps officials stated that DOD has not tasked the Marine Corps to prioritize gender with regard to retention or promotion.<sup>64</sup> Marine Corps officials also stated that the Marine Corps does not have any programs or initiatives that focus specifically on

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<sup>60</sup>As an example, we reported that organizations can track the return they receive on investments in such areas as diversity training and recruitment to evaluate the progress they are making in those efforts.

<sup>61</sup>DACOWITS, *2017 Annual Report* (Dec. 12, 2017).

<sup>62</sup>DACOWITS also recommended that these targets should not be constrained by past or current representations of women in the armed services, or estimates of the propensity of women to enlist. DACOWITS, *2014 Report* (Dec. 5, 2014).

<sup>63</sup>DACOWITS, *2015 Report* (Dec. 10, 2015).

<sup>64</sup>Marine Corps officials also stated that the Marine Corps does not have a separate plan unique to female servicemembers, but it has a number of initiatives that are specifically focused towards female servicemembers, such as increased female-inclusive and female-specific recruitment marketing and advertising.

reducing attrition and increasing retention of female servicemembers and that its programs focus on increasing the retention of quality Marines—regardless of gender.<sup>65</sup> As another example, Air Force officials stated that, while the Air Force has some specific initiatives that each have their own goals, performance measures, and timeframes included as part of those initiatives, these efforts have not been consolidated into a deliberate plan that targets female servicemembers.<sup>66</sup> Navy and Army officials also stated that their respective services do not have plans specific to female retention efforts.

We found that OSD has not provided guidance to the services to develop and implement plans to guide and monitor their efforts to recruit and retain female servicemembers. While DOD is in the process of updating its diversity and inclusion strategic plan to guide efforts through 2024, the updated plan will focus—like the 2012-2017 plan—on providing an overarching construct for the department’s diversity efforts. DOD’s 2012-2017 Diversity and Inclusion Strategic Plan recognized that, due to the significant amount of time it takes to develop senior DOD leaders, it is essential that the department act to tap into the nation’s growing diverse talent pool. We have previously reported that pressures facing DOD—including increased competition for resources and involvement in more than a decade of conflict—underscore the importance of using a strategic approach to recruiting, developing, and retaining its workforce.<sup>67</sup> In addition, although DOD has reported that the services generally met overall recruiting and retention goals—goals that do not consider gender—we have also reported in recent years on challenges associated with meeting its goals for certain critical skills and specialties—for example, the medical field and pilots<sup>68</sup>—and rebuilding readiness across the force.<sup>69</sup> Given appropriate planning and monitoring, the department

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<sup>65</sup>The Marine Corps’ provided similar statements in its March 2018 response to a DACOWITS request for information.

<sup>66</sup>The Air Force’s initiatives were outlined in a November 2019 Air Force background paper.

<sup>67</sup>GAO, *Human Capital: Additional Steps Needed to Help Determine the Right Size and Composition of DOD’s Total Workforce*, [GAO-13-470](#) (Washington, D.C.: May 29, 2013).

<sup>68</sup>GAO, *Military Personnel: Additional Actions Needed to Address Gaps in Military Physician Specialties*, [GAO-18-77](#) (Washington, D.C.: Feb. 28, 2018); and *Military Personnel: Collecting Additional Data Could Enhance Pilot Retention Efforts*, [GAO-18-439](#) (Washington, D.C.: June 21, 2018).

<sup>69</sup>GAO, *Military Readiness: DOD’s Readiness Rebuilding Efforts May Be at Risk without a Comprehensive Plan*, [GAO-16-841](#) (Washington, D.C.: Sept. 7, 2016).

could, as the former Secretary of Defense stated in 2015, benefit by drawing strength from the broadest possible pool of talent, which includes the female population that makes up over 50 percent of the population.<sup>70</sup>

Our prior work on effective strategic workforce planning states that agencies should periodically measure their progress toward meeting human capital goals and the extent to which human capital activities contribute to achieving programmatic goals and provide information for effective oversight by identifying performance shortfalls and appropriate corrective actions.<sup>71</sup> In addition, internal control standards for the federal government state that management should define objectives clearly, including what is to be achieved [a goal], who is to achieve it, how it will be achieved—and in what timeframes—in addition to helping ensure that terms are understood at all levels.<sup>72</sup> Finally, the standards also stipulate that management should develop information needed for corrective action, if necessary.

Until DOD provides clear guidance and the services establish plans for monitoring and guiding their efforts to recruit and retain female active-duty servicemembers, including establishing goals, performance measures, and timeframes, the department may continue to experience slow growth of the female population and miss opportunities to retain a valuable segment of the population for its active-duty force.

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## Conclusions

Women have been eligible for appointment and admission to the military service academies for over 40 years and, more recently, DOD has taken steps to open more positions to female servicemembers, including ground combat positions. However, while DOD has identified that it intends to increase diversity—including gender diversity—across the services, data show that the overall percentage of female servicemembers across the department has increased slightly from fiscal years 2004 through 2018. In addition to this slight overall growth, female enlisted and commissioned officer rates of attrition during that same period were slightly higher in

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<sup>70</sup>Secretary of Defense Ash Carter, *Remarks on the Women-in-Service Review* (Dec. 3, 2015, as delivered in the Pentagon Press Briefing Room).

<sup>71</sup>GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, [GAO-04-39](#) (Washington, D.C.: Dec. 11, 2003).

<sup>72</sup>[GAO-14-704G](#).

comparison to their male counterparts. The percentage of female active-duty servicemembers tends to decrease at the 10-to-less-than-20 years of service category, and female active-duty servicemembers are more likely to separate from the military than their male counterparts. Moreover, from fiscal years 2004 through 2018, promotion rates for female active-duty servicemembers were slightly lower among the enlisted ranks in most years, but higher for officers as compared to their male counterparts.

DOD has an ongoing effort to study the state of diversity in the department and is in the process of developing a new Diversity and Inclusion Strategic Plan for 2019-2024. However, these efforts address the department's overall diversity and do not provide guidance to the services for developing plans to guide and monitor efforts to recruit and retain female active-duty servicemembers. Without such guidance and clear plans that include goals, performance measures, and timeframes to guide and monitor efforts to recruit and retain female servicemembers in the active-duty force, the services are not positioned to achieve the department's goals of maintaining a ready force that includes the best and the brightest and is also representative of the population it serves.

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## Recommendations for Executive Action

We are making a total of five recommendations—one to the Secretary of Defense and one to each of the military services. Specifically:

The Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness provides guidance to the services, for example, in its forthcoming diversity and inclusion strategic plan, to develop plans, with clearly defined goals, performance measures, and timeframes, to guide and monitor recruitment and retention efforts of female active-duty servicemembers in the military. (Recommendation 1)

The Secretary of the Army should develop a plan, with clearly defined goals, performance measures, and timeframes, to guide and monitor the Army's female active-duty servicemember recruitment and retention efforts. (Recommendation 2)

The Secretary of the Navy should develop a plan, with clearly defined goals, performance measures, and timeframes, to guide and monitor the Navy's female active-duty servicemember recruitment and retention efforts. (Recommendation 3)

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The Secretary of the Navy should ensure that the Commandant of the Marine Corps develops a plan, with clearly defined goals, performance measures, and timeframes, to guide and monitor the Marine Corps' female active-duty servicemember recruitment and retention efforts. (Recommendation 4)

The Secretary of the Air Force should develop a plan, with clearly defined goals, performance measures, and timeframes, to guide and monitor the Air Force's female active-duty servicemember recruitment and retention efforts. (Recommendation 5)

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## Agency Comments

We provided a draft of this report to DOD for review and comment. In its written comments, reproduced in appendix V, DOD and the services concurred with our recommendations and noted steps the department has taken and would be taking. DOD also provided technical comments, which we incorporated, as appropriate.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense; the Secretary of the Army; the Secretary of the Navy; the Commandant of the Marine Corps; the Secretary of the Air Force; the Office for Diversity, Equity, and Inclusion; and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3604 or [farrellb@gao.gov](mailto:farrellb@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix VI.



Brenda S. Farrell  
Director  
Defense Capabilities and Management

# Appendix I: List of Sources Used in the Literature Review and Content Analysis

Caswell, David C. USAF Female Pilot Turnover Influence: A Delphi Study of Work-Home Conflict. Wright-Patterson Air Force Base, Ohio: Department of the Air Force, Air Force University, Air Force Institute of Technology (June 2016).  
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<http://dx.doi.org/10.1177/0886109914555219>.  
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Pierce, Penny F., TriService Nursing Research Program. *Women Veterans Project: Operation Iraqi Freedom*. Ann Arbor, Michigan: University of Michigan (2008).  
<https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2013101316.xhtml>.

Stoker, Carol and Alice Crawford. *Surface Warfare Officer Retention: Analysis of Individual Ready Reserve Survey Data*. Monterey, California: Naval Postgraduate School, Graduate School of Business and Public Policy (January 22, 2008).  
<https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/ADA476863.xhtml>.

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**Appendix I: List of Sources Used in the  
Literature Review and Content Analysis**

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Williams, Nanette Marie, *The Influence of Contemporary Army Culture on Senior Enlisted Women's Decision to Commit to a Lifelong Career*. Flint, Michigan: Baker College, 2013.  
<https://search.proquest.com/docview/1427847908?accountid=12509>.

## Appendix II: Objectives, Scope, and Methodology

This report examines (1) trends in the percentage of female active-duty servicemembers in the military and their attrition rates from fiscal year 2004 through 2018, including the reported factors leading to that attrition; (2) how female active-duty servicemember promotion rates compare with those of their male counterparts and among female servicemembers with differing characteristics from fiscal years 2004 through 2018, and what factors influence these rates; and (3) the extent to which DOD and the military services have plans to guide and monitor female active-duty servicemember recruitment and retention.

To address these objectives, we focused our review on active-duty enlisted, officers, and warrant officers in all ranks and pay grades, serving within the four military services (the Army, the Navy, the Marine Corps, and the Air Force).<sup>1</sup> For our first and second objectives, we obtained and analyzed servicemember personnel data for fiscal year 2004 through 2018 from the Defense Manpower Data Center (DMDC), including, for example, service start date, branch of service, status, grade, gender, race, marital status, and whether the servicemember has dependents. We selected fiscal year 2004 through 2018 because, at the time we submitted our request for data, this was the most recent 15-year time period for which DMDC had complete data available.

These data were obtained from three different files maintained by DMDC, including the (1) Active-Duty File Monthly Snapshots, (2) Transaction data for active-duty separations for October 1, 2003 through September 30, 2018, and (3) the Defense Enrollment Eligibility Reporting System. The data obtained from DMDC are granular down to the single month and single servicemember. We aggregated these data into a single file that allowed us to analyze them for (1) descriptive statistics to show trends and (2) modeling using duration analysis to show trends to examine the likelihood of occurrence for specific events for various demographic and

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<sup>1</sup>The Air Force does not have warrant officers. On December 20, 2019, after we completed the data-gathering portion of our review, the National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-120, established the United States Space Force as a military service within DOD. Accordingly, since we did not gather data from the Space Force, throughout this report we refer to only four military services within DOD.

DOD-specific administrative characteristics.<sup>2</sup> We analyzed these data based on specific demographic characteristics, including gender, race, ethnicity, pay grade, and other variables. While the focus of this review was female active-duty servicemembers, we analyzed data on male active-duty servicemembers, using the same demographic and administrative characteristics, as the primary comparison group. We also analyzed the data to identify and compare the reasons for separation by these different groups and characteristics based on assigned separation designator codes.

To assess the reliability of the data obtained from DMDC, we reviewed related documentation, for example, the data dictionary associated with the active-duty file; interviewed knowledgeable officials from DMDC; and conducted both electronic and manual data testing to look for missing or erroneous data. For example, within the data, some servicemembers changed their race, ethnicity, and/or gender over time. Through discussions with DMDC, we determined that these are often errors in the data, but in some instances can be the result of personal decisions by the servicemember. DMDC recommended using the last known instance for each of these attributes for each point on the servicemembers' timeline. We implemented this recommendation, as it improved the results and findings and avoided servicemembers being counted across multiple, exclusive demographics—i.e., double counted. Based on these steps, we determined that these data were sufficiently reliable for the purposes of analyzing and reporting on the representation of servicemembers with specific demographic characteristics and the rates of attrition and promotion among those servicemembers for fiscal year 2004 through 2018. We also determined that fiscal year 2004 through 2018 DMDC data were sufficiently reliable for the purposes of constructing a duration analysis statistical model to estimate the likelihood of attrition by servicemembers with specific demographic factors.

We used the fiscal year 2004 through 2018 DMDC data to construct descriptive statistics of the demographic composition of the services' active-duty forces and drew comparisons between female and male servicemembers, and across demographic and administrative characteristics. According to service officials, the department does not have a universal definition for attrition. We, therefore, constructed attrition rates for active-duty servicemembers by capturing (1) any enlisted

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<sup>2</sup>Fifteen years of data provide a sufficient timeframe to achieve reliable results for both types of analysis.

servicemember who separated more than 1 week from the end of his or her first service contract, and (2) any officer who separated within 3 years of his or her start date. Attrition rates were calculated by taking the total number of members who attrited, per the definitions above, in a given fiscal year and dividing that number by the total number of officers or enlisted servicemembers in that year, times 100 to express as a percent.<sup>3</sup> To prevent double counting of non-attrited members across multiple fiscal years, attrited and non-attrited members were counted in the year that they entered service and not the year that they separated. In order to construct promotion rates for active-duty servicemembers, we used the servicemembers' time-in-grade, time-in-service, and each service's policy for time-in-service and time-in-grade minimums for each pay grade to determine eligibility for promotion.<sup>4</sup> For every fiscal year, if a servicemember was eligible for promotion whether they promoted or not, the servicemember was counted as eligible. If the servicemember did promote, then the servicemember was counted as promoted. The promotion rate for each category was calculated as the total number of promoted servicemembers divided by the total number of promotion-eligible servicemembers, times 100 to express as a percent.

We also conducted an analysis of associations between each of separation and promotion outcomes and certain demographic characteristics for servicemembers using the servicemember personnel data from DMDC for fiscal years 2004 through 2018, which included quarterly data on individual servicemembers. These data also contain information for each servicemember on the timing of his or her separation and promotions, if any. Specifically, we implemented a discrete time method for the analysis of event histories, using a logit specification.<sup>5</sup> This is a type of duration analysis methodology that is suited to the analysis of

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<sup>3</sup>This approach is consistent with how we calculated attrition rates of servicemembers in a 1990 report which looked at attrition and retention of women in the military. See GAO, *Women in the Military: Attrition and Retention*, [GAO/NSIAD-90-87BR](#) (Washington, D.C.: Jul. 26, 1990). That report defined attrition as voluntary and involuntary loss of military personnel prior to completion of the first term of enlistment or obligated duty. We used this same definition for attrition in this report.

<sup>4</sup>Because services evaluate promotion eligibility by more than time-in-grade and time-in-service, our pool of "eligible" candidates is larger than the true promotion pool used by each service.

<sup>5</sup>Discrete methods allow for flexible modeling specifications including time-varying covariates. See Wooldridge, J.M., "Econometric Analysis of Cross Section and Panel Data," 2nd Ed., Ch. 22 (Cambridge, Massachusetts: 2010); Allison, P., "Discrete-Time Methods for the Analysis of Event Histories," *Sociological Methodology*, vol. 13 (1982): pp. 61-98. doi:10.2307/270718.

event occurrences and their timing—which is the time elapsed until the event occurs (e.g. number of years until separation or promotion).

We examined the extent to which each active-duty servicemember's separation and promotions (or lack thereof) may be associated with certain factors related to that servicemember's demographic and occupational characteristics. These factors were time-invariant (e.g. race, gender, etc.) or time-varying (e.g. occupation, marital status, etc.). For our duration models for separation, we generally included (1) gender, (2) marital status, (3) the existence of dependents, (4) race and ethnic groups, (5) pay grade categories, (6) having a bachelor's degree or higher education degree versus not, (7) whether the individual has been assigned to an overseas duty location, (8) occupation, (9) fiscal year fixed effect, and (10) quarter-year time-in-service fixed effect. We tested multiple models and included various sets of factors. Since the number of female active-duty servicemembers decreases at higher pay grades, this was taken into account for our duration models for promotion. To ensure convergence of our promotion models, we made the following adjustments in control variables. We started with the Marine Corps' promotion data because the service has the smallest proportion of female active-duty servicemembers among the four services. After testing with multiple sets of different control variables with the data, we decided to use the following control variables. (See table 1.)

**Appendix II: Objectives, Scope, and Methodology**

**Table 1: Control Variables Used for Promotion Analysis of Female Active-Duty Servicemembers**

| <b>Pay grade</b>          | <b>Baseline model</b>                             | <b>Other control factors</b>   | <b>Note</b>   |
|---------------------------|---|--|---|
| <b>Enlisted</b>           |   |  |   |
| E1 - E5 (promotion to E6) | Female and time in service at the same grade only | Married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, occupation, and fiscal year | Including all   |
| E6 or higher              |   | Married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, and fiscal year             | Exclude occupation  |
| <b>Officer</b>            |   |  |   |
| O1- O2 (promotion to O3)  | Female and time in service at the same grade only | Married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, occupation, and fiscal year | Including all   |
| O3 or higher              |   | racial or ethnic minority, assignment to overseas duty location  | Excluding married, having dependents, bachelor's degree or higher education degree, occupation, and fiscal year |
| <b>Warrant Officers</b>   |   |  |   |
| W1- W2 (promotion to W3)  | Female and time in service at the same grade only | Married, having dependents, racial or ethnic minority, bachelor's degree or higher education degree, assignment to overseas duty location, occupation, and fiscal year | Including all   |
| W3 or higher              |   | Racial or ethnic minority, assignment to overseas duty location  | Excluding married, having dependents, bachelor's degree or higher education degree, occupation, and fiscal year |

Source: GAO analysis of Department of Defense data. | GAO-20-61.

We could not control for all factors that may affect separation and promotion, such as a servicemember's performance and labor market conditions. We also did not model the promotion process in the services. Our modeling should thus be viewed as evidence that may inform on possible associations in the data, and does not establish a causal relationship. Additional inquiry into each of the observed separation and promotion cases would be needed to truly ascertain the role of certain factors, such as gender, in each of these cases.

Additionally, we conducted a literature review and content analysis of existing research on promotion and retention in the military, with a focus on female servicemembers. To identify studies, we conducted searches of various databases, including ProQuest, EBSCO, Westlaw Edge,

Scopus, Dialog, and the National Technical Information Service, for English-language sources published in calendar year 2008 through 2018. We searched for peer-reviewed material, government and non-governmental reports, conference papers, books, and dissertations or theses. The database search was conducted from December 21, 2018 to January 10, 2019.

This search and review process yielded 213 potentially relevant studies after initial scoping by a research librarian and, after additional screening of titles and abstracts for relevance, resulted in the selection of 87 studies for full text review.<sup>6</sup> Specifically, two analysts sequentially reviewed the full texts for substantive content and reconciled any differences. Two methodologists sequentially reviewed the full texts for methodological considerations and reconciled any differences. Then the analysts and methodologists discussed and reconciled any remaining differences.

To be included in our review, studies had to either (1) include factors servicemembers reported about intended or actual separations, including retention; or (2) report analyses designed to identify characteristics that statistically predict service separation or attrition differences among female servicemembers or between female and male servicemembers. The studies had to include primarily one or more of the four military services within DOD and could not focus exclusively on the Coast Guard. The studies also had to include primarily active-duty personnel and could not focus exclusively on reserve component personnel. Studies that focused only on recruitment or accessions, exit or lateral transfer from a career field but not separation from service, or data collected only from military spouses were also deemed out of scope. The studies we included in our literature review were published between 2008 and 2018 and included information relevant to our research objective on female servicemember retention, attrition, or promotion.

From the group of 87 studies, we excluded 81 studies because they did not meet our inclusion criteria or the results were deemed not relevant to this review. The resulting six studies were further reviewed for content.<sup>7</sup> We conducted a content analysis in order to be able to summarize the

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<sup>6</sup>The initial search yielded 3,124 results. However, 2,911 results were excluded by a research librarian due to one or more of the following factors: duplicates, false-hits (search terms were in citation but were out of context), or geographically out of scope. An example of a false-hit would include articles about retention or promotion in law enforcement, not military.

<sup>7</sup>See appendix I for a list of the studies we included in our review.

relevant results from the literature search by identifying recurring themes. To conduct this content analysis, the team developed a list of six overarching themes with three to seven sub-themes associated with each main theme. The resultant 54 sub-themes were documented in the team's data collection instrument as a paired main theme and sub-theme. First, an analyst recorded an assessment of whether the study included the theme and sub-theme. A second analyst independently reviewed the same information and recorded an assessment. The two analysts reconciled their two independent assessments to produce the analysts' consensus and recorded that consensus in the team's final spreadsheet. All results reported from the studies reviewed were found to be sufficiently reliable for how they are used in this report and any limitations are mentioned in the text.

For our third objective, we reviewed documentation on the Office of the Secretary of Defense's (OSD) and services' efforts to collect and analyze data on diversity in the department, as well as servicemember retention. We reviewed the department's plans for developing and promoting diversity and inclusion in the force, including the department's 2012-2017 Diversity and Inclusion Strategic Plan.<sup>8</sup> We also reviewed a draft version of the department's forthcoming plan for 2019-2024 Diversity and Inclusion Strategic Plan. We evaluated their efforts to determine whether they met federal internal control standards, including that management should design appropriate types of control activities such as defining objectives clearly and helping ensure that terms are understood at all levels.<sup>9</sup> We reviewed other publications on female recruitment and retention in the military, including reports and briefings developed by the Defense Advisory Committee on Women in the Services (DACOWITS)<sup>10</sup> and the 2011 final report of the Military Leadership Diversity Commission to determine what others had found and recommended with regard to female retention and participation in the military.<sup>11</sup> We also analyzed our past reports and recommendations, for example, on military personnel

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<sup>8</sup>Department of Defense, *Department of Defense Diversity and Inclusion Strategic Plan 2012-2017* (2012).

<sup>9</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

<sup>10</sup>DACOWITS, *2018 Annual Report* (Dec. 11, 2018); DACOWITS, *2017 Annual Report* (Dec. 12, 2017); DACOWITS, *2015 Report* (Dec. 10, 2015); DACOWITS, *2014 Report* (Dec. 11, 2014); DACOWITS, *2013 Report* (May 17, 2013).

<sup>11</sup>Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military, Final Report* (Arlington, VA: Mar. 15, 2011).

management<sup>12</sup> and DOD's Career Intermission Pilot Program, among others.<sup>13</sup>

For all three objectives, we also interviewed officials from the Office of Military Personnel Policy Office and the Office for Diversity, Equity, and Inclusion (ODEI), both under the Office of the Under Secretary of Defense for Personnel and Readiness, as well as officials from the four military services. We also interviewed representatives from DACOWITS and the Service Women's Action Network.<sup>14</sup> Further, we reviewed previously made recommendations by DACOWITS and the Military Leadership Diversity Commission aimed at improving promotion and retention, specifically of female servicemembers, and interviewed OSD officials about any progress made by the department and the services to address these recommendations.

We conducted this performance audit from September 2018 to May 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>12</sup>GAO, *Military Personnel: Oversight Framework and Evaluations Needed for DOD and the Coast Guard to Help Increase the Number of Female Officer Applicants*, [GAO-16-55](#) (Washington, D.C.: Nov. 13, 2015).

<sup>13</sup>GAO, *Military Personnel: DOD Should Develop a Plan to Evaluate the Effectiveness of Its Career Intermission Pilot Program*, [GAO-16-35](#) (Washington, D.C.: Oct. 27, 2015); GAO, *Military Personnel: Observations on the Department of Defense's Career Intermission Pilot Program*, [GAO-17-623R](#) (Washington, D.C.: May 31, 2017).

<sup>14</sup>The Service Women's Action Network was established in 2007 with a mission to support, connect, and advocate for females in the military; and a goal to ensure females in the military have access to the information, tools, and support needed to reach their personal and professional goals during and following their years of service.

# Appendix III: Descriptive Statistics Data Tables

Tables 2 through 14 present snapshots of active-duty data from the Defense Manpower Data Center, spanning the years of 2004 through 2018.

**Table 2: Number and Percentage of Active-Duty Servicemembers for Fiscal Years 2004 through 2018, by Organization and Gender**

| Fiscal year | Organization      |                     |                  |                   |                  |                   |                  |                   |                 |                   |
|-------------|-------------------|---------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|-----------------|-------------------|
|             | DOD               |                     | Army             |                   | Navy             |                   | Air Force        |                   | Marine Corps    |                   |
|             | Female            | Male                | Female           | Male              | Female           | Male              | Female           | Male              | Female          | Male              |
| 2004        | 236,342<br>(15.1) | 1,325,165<br>(84.9) | 84,631<br>(15.3) | 468,639<br>(84.7) | 59,870<br>(14.7) | 347,157<br>(85.3) | 79,580<br>(19.8) | 321,921<br>(80.2) | 12,261<br>(6.1) | 187,448<br>(93.9) |
| 2005        | 227,487<br>(14.9) | 1,302,082<br>(85.1) | 80,806<br>(14.8) | 466,375<br>(85.2) | 57,903<br>(14.7) | 337,301<br>(85.4) | 76,231<br>(19.8) | 308,756<br>(80.2) | 12,547<br>(6.2) | 189,650<br>(93.8) |
| 2006        | 223,846<br>(14.8) | 1,292,381<br>(85.2) | 79,975<br>(14.4) | 474,654<br>(85.6) | 56,531<br>(14.7) | 327,092<br>(85.3) | 74,521<br>(19.9) | 299,400<br>(80.1) | 12,819<br>(6.3) | 191,235<br>(93.7) |
| 2007        | 221,217<br>(14.7) | 1,288,335<br>(85.4) | 80,551<br>(14.2) | 486,234<br>(85.8) | 54,890<br>(14.8) | 315,169<br>(85.2) | 72,552<br>(19.9) | 291,760<br>(80.1) | 13,224<br>(6.4) | 195,172<br>(93.7) |
| 2008        | 218,561<br>(14.5) | 1,292,842<br>(85.5) | 81,292<br>(13.9) | 502,931<br>(86.1) | 54,347<br>(15.1) | 305,610<br>(84.9) | 69,230<br>(19.8) | 280,593<br>(80.2) | 13,692<br>(6.3) | 203,708<br>(93.7) |
| 2009        | 220,023<br>(14.4) | 1,303,555<br>(85.6) | 81,315<br>(13.7) | 512,687<br>(86.3) | 55,230<br>(15.6) | 299,830<br>(84.4) | 69,009<br>(19.7) | 281,324<br>(80.3) | 14,469<br>(6.5) | 209,714<br>(93.6) |
| 2010        | 222,940<br>(14.5) | 1,313,930<br>(85.5) | 82,784<br>(13.7) | 523,449<br>(86.3) | 56,299<br>(16.0) | 294,726<br>(84.0) | 68,722<br>(19.4) | 284,913<br>(80.6) | 15,135<br>(6.7) | 210,842<br>(93.3) |
| 2011        | 224,723<br>(14.6) | 1,314,918<br>(85.4) | 83,466<br>(13.7) | 525,225<br>(86.3) | 57,865<br>(16.6) | 291,653<br>(83.4) | 67,866<br>(19.2) | 286,534<br>(80.9) | 15,526<br>(6.8) | 211,506<br>(93.2) |
| 2012        | 224,772<br>(14.7) | 1,305,226<br>(85.3) | 82,120<br>(13.6) | 519,964<br>(86.4) | 59,455<br>(17.1) | 289,268<br>(83.0) | 67,355<br>(19.1) | 286,212<br>(81.0) | 15,842<br>(7.0) | 209,782<br>(93.0) |
| 2013        | 225,176<br>(14.9) | 1,286,537<br>(85.1) | 81,061<br>(13.7) | 509,831<br>(86.3) | 61,281<br>(17.6) | 286,046<br>(82.4) | 66,708<br>(19.0) | 284,376<br>(81.0) | 16,126<br>(7.3) | 206,284<br>(92.8) |
| 2014        | 223,147<br>(15.2) | 1,248,846<br>(84.8) | 78,303<br>(13.9) | 485,197<br>(86.1) | 62,617<br>(18.0) | 284,796<br>(82.0) | 65,814<br>(19.0) | 280,515<br>(81.0) | 16,413<br>(7.6) | 198,338<br>(92.4) |
| 2015        | 221,559<br>(15.5) | 1,212,250<br>(84.6) | 77,335<br>(14.2) | 465,948<br>(85.8) | 64,765<br>(18.5) | 285,186<br>(81.5) | 63,215<br>(19.1) | 267,647<br>(80.9) | 16,244<br>(7.8) | 193,469<br>(92.3) |

**Appendix III: Descriptive Statistics Data Tables**

| Fiscal year | Organization      |                     |                  |                   |                  |                   |                  |                   |                 |                   |
|-------------|-------------------|---------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|-----------------|-------------------|
|             | DOD               |                     | Army             |                   | Navy             |                   | Air Force        |                   | Marine Corps    |                   |
|             | Female            | Male                | Female           | Male              | Female           | Male              | Female           | Male              | Female          | Male              |
| 2016        | 225,385<br>(15.8) | 1,197,236<br>(84.2) | 77,581<br>(14.6) | 452,867<br>(85.4) | 65,770<br>(18.9) | 282,923<br>(81.1) | 65,304<br>(19.5) | 269,853<br>(80.5) | 16,730<br>(8.0) | 191,593<br>(92.0) |
| 2017        | 226,174<br>(16.1) | 1,173,368<br>(83.8) | 75,909<br>(14.9) | 434,059<br>(85.1) | 66,037<br>(19.3) | 276,765<br>(80.7) | 66,667<br>(19.8) | 270,363<br>(80.2) | 17,561<br>(8.4) | 192,181<br>(91.6) |
| 2018        | 232,063<br>(16.5) | 1,174,103<br>(83.5) | 77,675<br>(15.1) | 437,783<br>(84.9) | 67,967<br>(19.6) | 278,261<br>(80.4) | 68,932<br>(20.2) | 272,160<br>(79.8) | 17,489<br>(8.6) | 185,899<br>(91.4) |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: DOD and service percentage totals may sum to greater than 100 percent due to rounding. Six Navy servicemember records in 2012 did not have a gender identified and are, therefore, not captured in the above totals.

**Table 3: Percentage of Active-Duty Servicemembers (DOD-wide) by Gender and Length of Service, Fiscal Years 2004 through 2018**

Length of service

| Fiscal year | Less than 3 years |      | 3 to less than 10 years |      | 10 to less than 20 years |      | 20 or more years |      |
|-------------|-------------------|------|-------------------------|------|--------------------------|------|------------------|------|
|             | Female            | Male | Female                  | Male | Female                   | Male | Female           | Male |
| 2004        | 16.5              | 83.5 | 16.6                    | 83.4 | 12.0                     | 88.0 | 8.9              | 91.1 |
| 2005        | 15.8              | 84.2 | 16.5                    | 83.5 | 12.3                     | 87.7 | 9.0              | 91.0 |
| 2006        | 15.7              | 84.3 | 16.1                    | 83.9 | 12.5                     | 87.5 | 9.1              | 90.9 |
| 2007        | 15.6              | 84.4 | 15.7                    | 84.3 | 12.6                     | 87.4 | 9.4              | 90.7 |
| 2008        | 15.4              | 84.6 | 15.1                    | 84.9 | 12.9                     | 87.1 | 9.3              | 90.7 |
| 2009        | 15.5              | 84.5 | 14.8                    | 85.2 | 13.0                     | 87.0 | 9.6              | 90.4 |
| 2010        | 15.6              | 84.4 | 14.8                    | 85.3 | 13.2                     | 86.9 | 10.1             | 89.9 |
| 2011        | 15.7              | 84.3 | 14.6                    | 85.4 | 13.6                     | 86.4 | 10.1             | 90.0 |
| 2012        | 16.0              | 84.0 | 14.5                    | 85.5 | 13.8                     | 86.2 | 10.1             | 89.9 |
| 2013        | 16.3              | 83.7 | 14.8                    | 85.3 | 13.9                     | 86.1 | 10.3             | 89.7 |
| 2014        | 16.5              | 83.5 | 15.2                    | 84.8 | 14.0                     | 86.0 | 10.5             | 89.5 |
| 2015        | 16.9              | 83.1 | 15.5                    | 84.5 | 14.0                     | 86.0 | 10.8             | 89.2 |
| 2016        | 17.4              | 82.6 | 15.8                    | 84.2 | 14.1                     | 85.9 | 11.2             | 88.8 |
| 2017        | 17.9              | 82.1 | 16.1                    | 83.9 | 14.3                     | 85.7 | 11.4             | 88.6 |
| 2018        | 18.2              | 81.8 | 16.5                    | 83.5 | 14.4                     | 85.6 | 11.8             | 88.2 |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: Figures are in percent. Total percentage for each category of length of service may sum to greater than 100 percent because of rounding. Length of service refers to the servicemember's total number of years of service in the fiscal year identified.

Appendix III: Descriptive Statistics Data Tables

**Table 4: Number and Percentage of Active-Duty Servicemembers for Fiscal Year 2004, by Gender, Pay Grade, and Race**

| Pay Grade <sup>a</sup> | Race                           |          |       |            |          |        |                           |          |        |                                     |          |       |            |          |         |
|------------------------|--------------------------------|----------|-------|------------|----------|--------|---------------------------|----------|--------|-------------------------------------|----------|-------|------------|----------|---------|
|                        | American Indian/Alaskan Native |          |       | Asian      |          |        | Black or African American |          |        | Native Hawaiian or Pacific Islander |          |       | White      |          |         |
|                        | Female (%)                     | Male (%) | Total | Female (%) | Male (%) | Total  | Female (%)                | Male (%) | Total  | Female (%)                          | Male (%) | Total | Female (%) | Male (%) | Total   |
| E-01                   | 19.4                           | 80.6     | 2,505 | 15.4       | 84.6     | 3,770  | 21.5                      | 78.6     | 19,044 | 13.8                                | 86.2     | 3,496 | 12.9       | 87.1     | 93,735  |
| E-02                   | 20.7                           | 79.3     | 2,724 | 16.3       | 83.8     | 3,920  | 23.4                      | 76.6     | 18,890 | 13.6                                | 86.4     | 3,110 | 13.8       | 86.2     | 85,173  |
| E-03                   | 21.1                           | 78.9     | 4,246 | 17.9       | 82.2     | 9,500  | 25.8                      | 74.2     | 40,954 | 14.8                                | 85.2     | 4,824 | 14.2       | 85.8     | 168,899 |
| E-04                   | 20.9                           | 79.1     | 4,533 | 16.5       | 83.6     | 11,999 | 27.8                      | 72.2     | 55,806 | 12.9                                | 87.1     | 6,853 | 13.8       | 86.2     | 176,144 |
| E-05                   | 19.4                           | 80.6     | 3,415 | 13.5       | 86.5     | 12,556 | 25.8                      | 74.3     | 54,816 | 11.7                                | 88.3     | 4,388 | 13.1       | 87.0     | 155,531 |
| E-06                   | 11.4                           | 88.6     | 1,629 | 8.2        | 91.8     | 9,319  | 19.9                      | 80.1     | 41,830 | 7.1                                 | 92.9     | 4,428 | 8.5        | 91.5     | 104,883 |
| E-07                   | 10.0                           | 90.0     | 742   | 6.9        | 93.1     | 3,707  | 17.6                      | 82.4     | 26,393 | 5.7                                 | 94.3     | 4,224 | 7.2        | 92.8     | 59,116  |
| E-08                   | 9.9                            | 90.1     | 161   | 9.0        | 91.0     | 746    | 15.0                      | 85.1     | 7,043  | 7.1                                 | 92.9     | 987   | 6.5        | 93.6     | 16,348  |
| E-09                   | 10.0                           | 90.0     | 50    | 6.1        | 93.9     | 163    | 10.6                      | 89.4     | 2,632  | 7.1                                 | 92.9     | 365   | 6.8        | 93.2     | 6,775   |
| W-01                   | 13.3                           | 86.7     | 15    | 7.6        | 92.5     | 53.0   | 23.8                      | 76.2     | 365    | 9.1                                 | 90.9     | 11    | 5.3        | 94.7     | 1,681   |
| W-02                   | 9.7                            | 90.3     | 62    | 12.2       | 87.8     | 115.0  | 18.3                      | 81.7     | 1,116  | 4.8                                 | 95.2     | 42    | 5.1        | 95.0     | 4,420   |
| W-03                   | 3.1                            | 96.9     | 32    | 9.8        | 90.2     | 61.0   | 15.5                      | 84.5     | 785    | 4.8                                 | 95.2     | 63    | 4.4        | 95.6     | 3,249   |
| W-04                   | 0.0                            | 100.0    | 14    | 7.4        | 92.6     | 27.0   | 6.8                       | 93.3     | 252    | 3.3                                 | 96.7     | 30    | 2.5        | 97.5     | 1,668   |
| W-05                   | 0.0                            | 100.0    | 3     | 0.0        | 100.0    | 9.0    | 4.7                       | 95.3     | 64     | 0.0                                 | 100.0    | 5     | 2.9        | 97.1     | 383     |
| O-01                   | 17.1                           | 82.9     | 175   | 22.1       | 77.9     | 1,373  | 32.5                      | 67.5     | 3,038  | 27.3                                | 72.7     | 187   | 17.7       | 82.3     | 28,753  |
| O-02                   | 19.1                           | 81.0     | 210   | 22.2       | 77.8     | 1,074  | 31.6                      | 68.4     | 3,038  | 22.9                                | 77.1     | 153   | 17.2       | 82.8     | 24,355  |
| O-03                   | 13.1                           | 86.9     | 405   | 23.2       | 76.8     | 2,786  | 30.6                      | 69.4     | 6,398  | 20.7                                | 79.3     | 285   | 15.2       | 84.8     | 56,836  |
| O-04                   | 18.1                           | 81.9     | 188   | 21.1       | 78.9     | 1,050  | 26.9                      | 73.1     | 3,757  | 13.1                                | 86.9     | 175   | 12.2       | 87.9     | 37,095  |
| O-05                   | 12.5                           | 87.5     | 96    | 22.3       | 77.7     | 422    | 23.3                      | 76.7     | 2,014  | 12.5                                | 87.5     | 152   | 10.9       | 89.1     | 24,890  |
| O-06                   | 8.0                            | 92.0     | 25    | 17.9       | 82.1     | 112    | 18.4                      | 81.6     | 706    | 15.2                                | 84.8     | 79    | 10.3       | 89.7     | 10,358  |
| O-07                   | 0.0                            | 100.0    | 1     | 0.0        | 100.0    | 1      | 6.1                       | 93.9     | 33     | 0.0                                 | 100.0    | 1     | 5.2        | 94.8     | 403     |
| O-08                   | 0.0                            | 100.0    | 1     | 0.0        | 0.0      | 0      | 8.3                       | 91.7     | 12     | 0.0                                 | 0.0      | 0     | 5.4        | 94.6     | 261     |
| O-09                   | 0.0                            | 0.0      | 0     | 0.0        | 0.0      | 0      | 0.0                       | 100.0    | 3      | 0.0                                 | 100.0    | 1     | 0.8        | 99.2     | 121     |
| O-10                   | 0.0                            | 0.0      | 0     | 0.0        | 0.0      | 0      | 0.0                       | 100.0    | 1      | 0.0                                 | 0.0      | 0     | 0.0        | 100.0    | 34      |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: Total percentage for each category of length of service may sum to greater than 100 percent because of rounding. In addition to the race categories listed, the data also included "Unknown" and "Multiracial" race data. From 2004 through 2018, 1,542,229 servicemember records did not have a race identified and are therefore, not captured in this table. These servicemembers made up 1.9 percent of the servicemember population. From 2004 through 2018, 2,704,047 servicemember records were identified as multiracial and are therefore, not captured in this table. These servicemembers made up 3.3 percent of the servicemember population.

<sup>a</sup>The military has a system of pay grades and ranks that differs by military service. The "E" in E-1 stands for "enlisted" while the "1" indicates the pay grade for that position. The other pay grade categories are "W" for warrant officers and "O" for commissioned officers.

Appendix III: Descriptive Statistics Data Tables

**Table 5: Number and Percentage of Active-Duty Servicemembers for Fiscal Year 2018, by Gender, Pay Grade, and Race**

| Pay Grade <sup>a</sup> | Race                               |          |       |            |          |        |                              |          |        |  |          |       |            |          |         |
|------------------------|------------------------------------|----------|-------|------------|----------|--------|------------------------------|----------|--------|--|----------|-------|------------|----------|---------|
|                        | American Indian/<br>Alaskan Native |          |       | Asian      |          |        | Black or African<br>American |          |        | Native Hawaiian or<br>Pacific Islander |          |       | White      |          |         |
|                        | Female (%)                         | Male (%) | Total | Female (%) | Male (%) | Total  | Female (%)                   | Male (%) | Total  | Female (%)                             | Male (%) | Total | Female (%) | Male (%) | Total   |
| E-01                   | 22.0                               | 78.0     | 1,138 | 17.1       | 82.9     | 3,537  | 23.6                         | 76.4     | 21,424 | 21.2                                   | 78.8     | 1,165 | 14.3       | 85.7     | 85,183  |
| E-02                   | 20.4                               | 79.7     | 860   | 15.8       | 84.2     | 3,381  | 25.0                         | 75.0     | 16,452 | 21.4                                   | 78.6     | 1,047 | 14.4       | 85.6     | 67,536  |
| E-03                   | 23.5                               | 76.5     | 1,909 | 19.4       | 80.6     | 9,310  | 27.1                         | 72.9     | 36,660 | 23.9                                   | 76.1     | 2,335 | 15.7       | 84.3     | 139,928 |
| E-04                   | 21.0                               | 79.0     | 2,476 | 18.2       | 81.8     | 12,675 | 25.1                         | 74.9     | 50,239 | 21.9                                   | 78.1     | 2,748 | 13.6       | 86.4     | 174,671 |
| E-05                   | 19.9                               | 80.1     | 3,554 | 19.6       | 80.4     | 10,263 | 25.3                         | 74.7     | 42,865 | 22.4                                   | 77.7     | 3,316 | 13.0       | 87.0     | 148,063 |
| E-06                   | 14.2                               | 85.8     | 3,197 | 16.6       | 83.4     | 9,310  | 24.4                         | 75.6     | 30,315 | 17.7                                   | 82.3     | 2,504 | 9.9        | 90.1     | 104,943 |
| E-07                   | 13.9                               | 86.2     | 1,321 | 15.6       | 84.4     | 7,237  | 26.3                         | 73.7     | 17,822 | 20.1                                   | 79.9     | 1,132 | 9.5        | 90.5     | 57,470  |
| E-08                   | 15.3                               | 84.7     | 321   | 13.5       | 86.5     | 2,437  | 22.8                         | 77.3     | 5,446  | 10.0                                   | 90.0     | 249   | 8.0        | 92.0     | 16,613  |
| E-09                   | 9.0                                | 91.0     | 100   | 8.7        | 91.3     | 701    | 16.2                         | 83.9     | 2,124  | 13.8                                   | 86.2     | 58    | 6.7        | 93.3     | 6,763   |
| W-01                   | 22.2                               | 77.8     | 9     | 20.3       | 79.7     | 187    | 26.9                         | 73.1     | 387    | 11.1                                   | 88.9     | 18    | 5.4        | 94.6     | 1,938   |
| W-02                   | 14.0                               | 86.0     | 57    | 17.0       | 83.0     | 448    | 19.8                         | 80.2     | 1,099  | 16.4                                   | 83.6     | 67    | 5.5        | 94.5     | 4,861   |
| W-03                   | 9.8                                | 90.2     | 41    | 9.9        | 90.1     | 162    | 21.3                         | 78.7     | 1,058  | 15.0                                   | 85.0     | 40    | 5.6        | 94.4     | 3,478   |
| W-04                   | 4.2                                | 95.8     | 24    | 13.0       | 87.0     | 92     | 18.9                         | 81.1     | 491    | 0.0                                    | 100.0    | 8     | 3.9        | 96.1     | 1,853   |
| W-05                   | 0.0                                | 100.0    | 4     | 18.8       | 81.3     | 16     | 18.2                         | 81.8     | 143    | 0.0                                    | 100.0    | 6     | 3.9        | 96.1     | 540     |
| O-01                   | 25.9                               | 74.1     | 255   | 23.9       | 76.1     | 2,272  | 28.7                         | 71.3     | 2,760  | 23.1                                   | 76.9     | 212   | 19.4       | 80.6     | 26,210  |
| O-02                   | 24.3                               | 75.7     | 206   | 23.2       | 76.8     | 1,818  | 31.6                         | 68.4     | 2,532  | 26.3                                   | 73.7     | 194   | 18.8       | 81.2     | 22,801  |
| O-03                   | 20.9                               | 79.1     | 521   | 25.9       | 74.1     | 4,438  | 35.3                         | 64.7     | 6,275  | 24.1                                   | 75.9     | 424   | 17.7       | 82.3     | 58,985  |
| O-04                   | 16.1                               | 83.9     | 254   | 23.6       | 76.4     | 2,160  | 35.0                         | 65.0     | 3,739  | 31.7                                   | 68.3     | 224   | 14.9       | 85.1     | 33,413  |
| O-05                   | 15.6                               | 84.4     | 141   | 22.8       | 77.2     | 1,086  | 27.9                         | 72.1     | 2,262  | 23.6                                   | 76.4     | 110   | 11.5       | 88.5     | 22,025  |
| O-06                   | 5.9                                | 94.1     | 51    | 23.8       | 76.2     | 383    | 23.3                         | 76.7     | 794    | 4.2                                    | 95.8     | 24    | 10.5       | 89.5     | 9,486   |
| O-07                   | 0.0                                | 0.0      | 0     | 12.5       | 87.5     | 8      | 5.9                          | 94.1     | 34     | 0.0                                    | 0.0      | 0     | 6.3        | 93.7     | 367     |
| O-08                   | 0.0                                | 0.0      | 0     | 0.0        | 100.0    | 5      | 0.0                          | 100.0    | 19     | 0.0                                    | 100.0    | 1     | 6.6        | 93.4     | 272     |
| O-09                   | 0.0                                | 0.0      | 0     | 33.3       | 66.7     | 3      | 18.8                         | 81.3     | 16     | 0.0                                    | 100.0    | 1     | 5.0        | 95.0     | 120     |
| O-10                   | 0.0                                | 0.0      | 0     | 0.0        | 100.0    | 1      | 0.0                          | 100.0    | 2      | 0.0                                    | 0.0      | 0     | 5.9        | 94.1     | 34      |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: Total percentage for each category of length of service may sum to greater than 100 percent because of rounding. In addition to the race categories listed, the data also included "Unknown" and "Multiracial" race data. From 2004 through 2018, 1,542,229 servicemember records did not have a race identified and are therefore not captured in this table. These servicemembers made up 1.9 percent of the servicemember population. From 2004 through 2018, 2,704,047 servicemember records were identified as multiracial and are therefore, not captured in this table. These servicemembers made up 3.3 percent of the servicemember population.

<sup>a</sup>The military has a system of pay grades and ranks that differs by military service. The "E" in E-1 stands for "enlisted" while the "1" indicates the pay grade for that position. The other pay grade categories are "W" for warrant officers and "O" for commissioned officers.

Appendix III: Descriptive Statistics Data Tables

**Table 6: Percentage of Female Active-Duty Servicemembers in Selected Occupations in Fiscal Year 2004, by Pay Grade**

Figures in percent

| Pay Grade <sup>a</sup> | Occupation     |          |                     |                                  |             |            |           |
|------------------------|----------------|----------|---------------------|----------------------------------|-------------|------------|-----------|
|                        | Administration | Analysis | Combat <sup>b</sup> | Equipment Repair and Maintenance | Health Care | Leadership | Logistics |
| E-01                   | 45.0           | 9.6      | 1.6                 | 12.4                             | 29.6        | 0.0        | 25.1      |
| E-02                   | 39.5           | 14.9     | 2.5                 | 10.4                             | 37.1        | 0.0        | 22.4      |
| E-03                   | 34.7           | 20.0     | 8.8                 | 10.0                             | 39.8        | 0.0        | 20.6      |
| E-04                   | 38.0           | 20.0     | 4.4                 | 10.0                             | 38.4        | 0.0        | 21.5      |
| E-05                   | 35.0           | 19.0     | 4.4                 | 7.4                              | 37.9        | 0.0        | 15.7      |
| E-06                   | 25.6           | 11.5     | 1.9                 | 5.5                              | 25.9        | 0.0        | 12.1      |
| E-07                   | 21.6           | 9.2      | 1.1                 | 4.0                              | 19.5        | 0.0        | 11.4      |
| E-08                   | 17.9           | 9.8      | 1.0                 | 3.7                              | 18.7        | 0.0        | 10.2      |
| E-09                   | 12.5           | 8.5      | 1.2                 | 3.1                              | 17.0        | 0.0        | 6.4       |
| W-01                   | 41.7           | 11.9     | 3.8                 | 5.3                              | 14.3        | 0.0        | 33.9      |
| W-02                   | 32.6           | 13.0     | 3.2                 | 4.5                              | 9.8         | 0.0        | 23.1      |
| W-03                   | 26.5           | 12.5     | 1.9                 | 3.3                              | 19.5        | 0.0        | 18.6      |
| W-04                   | 26.6           | 5.6      | 0.9                 | 1.6                              | 5.9         | 0.0        | 13.2      |
| W-05                   | 28.7           | 3.5      | 0.9                 | 1.6                              | 25.0        | 0.0        | 3.7       |
| O-01                   | 27.3           | 29.3     | 5.8                 | 18.4                             | 55.4        | 0.0        | 28.0      |
| O-02                   | 0.0            | 26.5     | 8.5                 | 17.8                             | 48.8        | 0.0        | 23.7      |
| O-03                   | 0.0            | 18.3     | 5.7                 | 13.7                             | 36.1        | 0.0        | 18.8      |
| O-04                   | 0.0            | 12.7     | 2.3                 | 10.9                             | 34.7        | 0.0        | 12.6      |
| O-05                   | 0.0            | 11.2     | 1.9                 | 11.8                             | 30.2        | 3.6        | 11.1      |
| O-06                   | 19.1           | 10.2     | 2.3                 | 11.1                             | 19.9        | 4.2        | 11.3      |
| O-07                   | 18.3           | 0.0      | 0.0                 | 0.0                              | 0.0         | 5.2        | 0.0       |
| O-08                   | 18.4           | 0.0      | 0.0                 | 0.0                              | 0.0         | 5.4        | 0.0       |
| O-09                   | 13.4           | 0.0      | 0.0                 | 0.0                              | 0.0         | 0.8        | 0.0       |
| O-10                   | 10.5           | 0.0      | 0.0                 | 0.0                              | 0.0         | 0.0        | 0.0       |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: In addition to the occupation categories listed, the data also included “Non-Occupational” and “Unknown” Occupation categories. From 2004 through 2018, 145,216 servicemember records did not have an occupation identified and are therefore, not captured in this table. These servicemembers made up 0.2 percent of the servicemember population. From 2004 through 2018, 4,363,414 servicemember records were identified as nonoccupational and are therefore, not captured in this table. These servicemembers made up 5.3 percent of the servicemember population.

<sup>a</sup>The military has a system of pay grades and ranks that differs by military service. The “E” in E-1 stands for “enlisted” while the “1” indicates the pay grade for that position. The other pay grade categories are “W” for warrant officers and “O” for commissioned officers.

<sup>b</sup>A 2013 Secretary of Defense and Chairman of the Joint Chiefs of Staff memorandum directed the military services to open currently closed units and positions to women, consistent with certain principles and with the implementation of certain standards, with integration of female

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servicemembers into newly opened positions and units to occur as expeditiously as possible, considering good order and judicious use of fiscal resources, but no later than January 1, 2016. The memorandum also directed that any recommendation to keep an occupational specialty or unit closed to female servicemembers be personally approved first by the Chairman of the Joint Chiefs of Staff, and then by the Secretary of Defense. Any exceptions must be narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills, and abilities needed for the position. Secretary of Defense and Chairman of the Joint Chiefs of Staff Memorandum, Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule (Jan. 24, 2013).

**Table 7: Percentage of Female Active-Duty Servicemembers in Selected Occupations in Fiscal Year 2018, by Pay Grade**

Figures in percent

| Pay Grade <sup>a</sup> | Occupation     |          |                     |                                  |             |            |           |
|------------------------|----------------|----------|---------------------|----------------------------------|-------------|------------|-----------|
|                        | Administration | Analysis | Combat <sup>b</sup> | Equipment Repair and Maintenance | Health Care | Leadership | Logistics |
| E-01                   | 34.8           | 10.7     | 6.0                 | 13.1                             | 30.7        | 0.0        | 21.4      |
| E-02                   | 35.9           | 12.2     | 4.5                 | 13.2                             | 34.9        | 0.0        | 23.6      |
| E-03                   | 33.0           | 16.9     | 9.4                 | 14.0                             | 36.0        | 0.0        | 22.7      |
| E-04                   | 31.0           | 16.3     | 3.8                 | 13.4                             | 31.2        | 0.0        | 20.3      |
| E-05                   | 31.4           | 16.9     | 4.8                 | 11.5                             | 31.5        | 0.0        | 19.1      |
| E-06                   | 31.2           | 14.0     | 2.3                 | 7.6                              | 31.1        | 0.0        | 15.2      |
| E-07                   | 31.0           | 13.3     | 1.5                 | 7.0                              | 32.9        | 0.0        | 15.5      |
| E-08                   | 24.2           | 16.0     | 0.9                 | 6.2                              | 30.2        | 0.0        | 14.2      |
| E-09                   | 14.5           | 10.7     | 1.0                 | 4.7                              | 24.7        | 0.0        | 10.9      |
| W-01                   | 25.6           | 15.8     | 2.3                 | 4.1                              | 20.6        | 0.0        | 24.2      |
| W-02                   | 22.1           | 12.8     | 3.6                 | 4.4                              | 5.6         | 0.0        | 27.9      |
| W-03                   | 20.5           | 12.8     | 3.1                 | 4.8                              | 14.7        | 0.0        | 33.5      |
| W-04                   | 18.3           | 9.1      | 1.2                 | 3.9                              | 30.8        | 0.0        | 29.2      |
| W-05                   | 15.7           | 14.1     | 2.5                 | 5.4                              | 0.0         | 0.0        | 23.9      |
| O-01                   | 37.2           | 26.4     | 12.6                | 19.9                             | 54.5        | 0.0        | 24.7      |
| O-02                   | 38.3           | 25.6     | 12.1                | 17.8                             | 55.2        | 0.0        | 24.7      |
| O-03                   | 33.2           | 20.7     | 8.1                 | 12.6                             | 41.7        | 0.0        | 21.8      |
| O-04                   | 29.2           | 15.6     | 5.1                 | 10.8                             | 39.8        | 16.7       | 16.6      |
| O-05                   | 22.5           | 14.1     | 4.0                 | 9.4                              | 31.9        | 5.1        | 14.2      |
| O-06                   | 21.0           | 11.5     | 3.0                 | 7.5                              | 27.0        | 3.1        | 8.3       |
| O-07                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 6.5        | 0.0       |
| O-08                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 6.0        | 0.0       |
| O-09                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 7.8        | 0.0       |
| O-10                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 5.4        | 0.0       |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: In addition to the occupation categories listed, the data also included “Non-Occupational” and “Unknown” Occupation categories. From 2004 through 2018, 145,216 servicemember records did not have an occupation identified and are therefore, not captured in this table. These servicemembers

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### Appendix III: Descriptive Statistics Data Tables

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made up 0.2 percent of the servicemember population. From 2004 through 2018, 4,363,414 servicemember records were identified as nonoccupational and are therefore, not captured in this table. These servicemembers made up 5.3 percent of the servicemember population.

<sup>a</sup>The military has a system of pay grades and ranks that differs by military service. The “E” in E-1 stands for “enlisted” while the “1” indicates the pay grade for that position. The other pay grade categories are “W” for warrant officers and “O” for commissioned officers.

<sup>b</sup>A 2013 Secretary of Defense and Chairman of the Joint Chiefs of Staff memorandum directed the military services to open currently closed units and positions to women, consistent with certain principles and with the implementation of certain standards, with integration of female servicemembers into newly opened positions and units to occur as expeditiously as possible, considering good order and judicious use of fiscal resources, but no later than January 1, 2016. The memorandum also directed that any recommendation to keep an occupational specialty or unit closed to female servicemembers be personally approved first by the Chairman of the Joint Chiefs of Staff, and then by the Secretary of Defense. Any exceptions must be narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills, and abilities needed for the position. Secretary of Defense and Chairman of the Joint Chiefs of Staff Memorandum, Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule (Jan. 24, 2013).

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**Table 8: Percentage of Male Active-Duty Servicemembers in Selected Occupations in Fiscal Year 2004, by Pay Grade**

Figures in percent

| Pay Grade <sup>a</sup> | Occupation     |          |                     |                                  |             |            |           |
|------------------------|----------------|----------|---------------------|----------------------------------|-------------|------------|-----------|
|                        | Administration | Analysis | Combat <sup>b</sup> | Equipment repair and maintenance | Health care | Leadership | Logistics |
| E-01                   | 55.0           | 90.4     | 98.4                | 87.6                             | 70.4        | 0.0        | 74.9      |
| E-02                   | 60.5           | 85.1     | 97.5                | 89.6                             | 62.9        | 0.0        | 77.6      |
| E-03                   | 65.3           | 80.0     | 91.2                | 90.0                             | 60.2        | 0.0        | 79.4      |
| E-04                   | 62.0           | 80.1     | 95.6                | 90.0                             | 61.7        | 0.0        | 78.5      |
| E-05                   | 65.0           | 81.1     | 95.6                | 92.6                             | 62.1        | 0.0        | 84.3      |
| E-06                   | 74.4           | 88.6     | 98.1                | 94.5                             | 74.1        | 0.0        | 87.9      |
| E-07                   | 78.5           | 90.8     | 99.0                | 96.0                             | 80.5        | 0.0        | 88.6      |
| E-08                   | 82.1           | 90.2     | 99.0                | 96.3                             | 81.3        | 0.0        | 89.8      |
| E-09                   | 87.5           | 91.5     | 98.8                | 96.9                             | 83.0        | 0.0        | 93.6      |
| W-01                   | 81.0           | 88.1     | 96.2                | 94.7                             | 85.7        | 0.0        | 66.1      |
| W-02                   | 81.7           | 87.0     | 96.8                | 95.5                             | 90.2        | 0.0        | 77.0      |
| W-03                   | 81.6           | 87.5     | 98.1                | 96.7                             | 80.5        | 0.0        | 81.4      |
| W-04                   | 86.6           | 94.4     | 99.2                | 98.4                             | 94.1        | 0.0        | 86.8      |
| W-05                   | 89.5           | 96.6     | 99.1                | 98.5                             | 75.0        | 0.0        | 96.3      |
| O-01                   | 58.3           | 70.7     | 94.2                | 81.6                             | 44.6        | 0.0        | 72.0      |
| O-02                   | 67.4           | 73.5     | 91.5                | 82.2                             | 51.2        | 0.0        | 76.3      |
| O-03                   | 73.5           | 81.8     | 94.3                | 86.3                             | 63.9        | 100.0      | 81.2      |
| O-04                   | 73.4           | 87.4     | 97.7                | 89.1                             | 65.3        | 100.0      | 87.4      |
| O-05                   | 71.3           | 88.8     | 98.1                | 88.2                             | 69.8        | 96.4       | 88.9      |
| O-06                   | 72.7           | 89.8     | 97.8                | 88.9                             | 80.1        | 95.8       | 88.7      |
| O-07                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 94.8       | 0.0       |
| O-08                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 94.6       | 0.0       |
| O-09                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 99.2       | 0.0       |
| O-10                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 100.0      | 0.0       |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: In addition to the occupation categories listed, the DMDC data also included “Non-Occupational” and “Unknown” Occupation categories. From 2004 through 2018, 145,216 servicemember records did not have an occupation identified and are therefore, not captured in this table. These servicemembers made up 0.2 percent of the servicemember population. From 2004 through 2018, 4,363,414 servicemember records were identified as nonoccupational and are therefore, not captured in this table. These servicemembers made up 5.3 percent of the servicemember population.

<sup>a</sup>The military has a system of pay grades and ranks that differs by military service. The “E” in E-1 stands for “enlisted” while the “1” indicates the pay grade for that position. The other pay grade categories are “W” for warrant officers and “O” for commissioned officers.

<sup>b</sup>A 2013 Secretary of Defense and Chairman of the Joint Chiefs of Staff memorandum directed the military services to open currently closed units and positions to women, consistent with certain

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principles and with the implementation of certain standards, with integration of female servicemembers into newly opened positions and units to occur as expeditiously as possible, considering good order and judicious use of fiscal resources, but no later than January 1, 2016. The memorandum also directed that any recommendation to keep an occupational specialty or unit closed to female servicemembers be personally approved first by the Chairman of the Joint Chiefs of Staff, and then by the Secretary of Defense. Any exceptions must be narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills, and abilities needed for the position. Secretary of Defense and Chairman of the Joint Chiefs of Staff Memorandum, Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule (Jan. 24, 2013).

**Table 9: Percent of Male Active-Duty Servicemembers in Selected Occupations in Fiscal Year 2018, by Pay Grade**

Figures in percent

| Pay Grade <sup>a</sup> | Occupation     |          |                     |                                  |             |            |           |
|------------------------|----------------|----------|---------------------|----------------------------------|-------------|------------|-----------|
|                        | Administration | Analysis | Combat <sup>b</sup> | Equipment repair and maintenance | Health care | Leadership | Logistics |
| E-01                   | 65.2           | 89.3     | 94.0                | 87.0                             | 69.3        | 0.0        | 78.6      |
| E-02                   | 64.1           | 87.8     | 95.5                | 86.8                             | 65.1        | 0.0        | 76.4      |
| E-03                   | 67.0           | 83.1     | 90.7                | 86.0                             | 64.1        | 0.0        | 77.3      |
| E-04                   | 69.0           | 83.7     | 96.2                | 86.6                             | 68.8        | 0.0        | 79.7      |
| E-05                   | 68.6           | 83.1     | 95.2                | 88.5                             | 68.5        | 0.0        | 80.9      |
| E-06                   | 68.8           | 86.0     | 97.7                | 92.4                             | 68.9        | 0.0        | 84.8      |
| E-07                   | 69.0           | 86.7     | 98.5                | 93.0                             | 67.1        | 0.0        | 84.6      |
| E-08                   | 75.8           | 84.0     | 99.1                | 93.8                             | 69.8        | 0.0        | 85.8      |
| E-09                   | 85.5           | 89.3     | 99.0                | 95.3                             | 75.4        | 0.0        | 89.1      |
| W-01                   | 74.4           | 84.2     | 97.7                | 95.9                             | 79.4        | 0.0        | 75.8      |
| W-02                   | 77.9           | 87.2     | 96.4                | 95.6                             | 94.4        | 0.0        | 72.1      |
| W-03                   | 79.5           | 87.2     | 96.9                | 95.2                             | 85.3        | 0.0        | 66.5      |
| W-04                   | 81.7           | 90.9     | 98.8                | 96.1                             | 69.2        | 0.0        | 70.8      |
| W-05                   | 84.3           | 85.9     | 97.5                | 94.6                             | 100.0       | 0.0        | 76.1      |
| O-01                   | 62.8           | 73.6     | 87.4                | 80.1                             | 45.5        | 0.0        | 75.3      |
| O-02                   | 61.7           | 74.4     | 87.9                | 82.2                             | 44.8        | 0.0        | 75.3      |
| O-03                   | 66.8           | 79.3     | 91.9                | 87.4                             | 58.3        | 0.0        | 78.2      |
| O-04                   | 70.8           | 84.4     | 94.9                | 89.2                             | 60.2        | 83.3       | 83.5      |
| O-05                   | 77.5           | 86.0     | 96.1                | 90.6                             | 68.1        | 94.9       | 85.8      |
| O-06                   | 79.0           | 88.6     | 97.0                | 92.5                             | 73.0        | 96.9       | 91.7      |
| O-07                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 93.5       | 0.0       |
| O-08                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 94.0       | 0.0       |
| O-09                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 92.3       | 0.0       |
| O-10                   | 0.0            | 0.0      | 0.0                 | 0.0                              | 0.0         | 94.6       | 0.0       |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: In addition to the occupation categories listed, the data also included "Non-Occupational" and "Unknown" Occupation categories. From 2004 through 2018, 145,216 servicemember records did not have an occupation identified and are therefore, not captured in this table. These servicemembers

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made up 0.2 percent of the servicemember population. From 2004 through 2018, 4,363,414 servicemember records were identified as nonoccupational and are therefore, not captured in this table. These servicemembers made up 5.3 percent of the servicemember population.

<sup>a</sup>The military has a system of pay grades and ranks that differs by military service. The “E” in E-1 stands for “enlisted” while the “1” indicates the pay grade for that position. The other pay grade categories are “W” for warrant officers and “O” for commissioned officers.

<sup>b</sup>A 2013 Secretary of Defense and Chairman of the Joint Chiefs of Staff memorandum directed the military services to open currently closed units and positions to women, consistent with certain principles and with the implementation of certain standards, with integration of female servicemembers into newly opened positions and units to occur as expeditiously as possible, considering good order and judicious use of fiscal resources, but no later than January 1, 2016. The memorandum also directed that any recommendation to keep an occupational specialty or unit closed to female servicemembers be personally approved first by the Chairman of the Joint Chiefs of Staff, and then by the Secretary of Defense. Any exceptions must be narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills, and abilities needed for the position. Secretary of Defense and Chairman of the Joint Chiefs of Staff Memorandum, Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule (Jan. 24, 2013).

Appendix III: Descriptive Statistics Data Tables

**Table 10: Attrition Rates of Active-Duty Enlisted Servicemembers for Fiscal Years 2004 through 2018, by Service and Gender**  
 Figures in percent

| Fiscal year | Service |      |        |      |           |      |              |      |        |      |
|-------------|---------|------|--------|------|-----------|------|--------------|------|--------|------|
|             | Army    |      | Navy   |      | Air Force |      | Marine Corps |      | Total  |      |
|             | Female  | Male | Female | Male | Female    | Male | Female       | Male | Female | Male |
| 2004        | 42.5    | 28.2 | 15.9   | 16.6 | 27.9      | 21.3 | 26.1         | 17.3 | 33.1   | 22.7 |
| 2005        | 38.0    | 23.4 | 8.8    | 6.8  | 28.8      | 22.2 | 25.3         | 17.9 | 28.8   | 19.0 |
| 2006        | 35.4    | 21.5 | 9.5    | 6.4  | 30.6      | 23.1 | 22.9         | 17.9 | 29.9   | 19.5 |
| 2007        | 36.0    | 23.9 | 4.8    | 4.6  | 34.0      | 27.0 | 22.1         | 17.7 | 31.1   | 21.3 |
| 2008        | 37.5    | 24.9 | 4.5    | 3.7  | 34.1      | 27.5 | 23.5         | 18.8 | 30.4   | 21.2 |
| 2009        | 40.5    | 27.7 | 8.3    | 6.2  | 34.2      | 28.0 | 25.1         | 17.4 | 30.0   | 21.8 |
| 2010        | 36.9    | 25.7 | 12.0   | 9.3  | 33.1      | 25.9 | 20.3         | 14.7 | 28.2   | 20.8 |
| 2011        | 35.6    | 25.7 | 16.2   | 12.9 | 28.8      | 24.1 | 18.2         | 13.4 | 27.4   | 20.6 |
| 2012        | 35.1    | 26.0 | 22.8   | 16.2 | 27.0      | 22.0 | 20.8         | 13.1 | 28.2   | 20.8 |
| 2013        | 35.8    | 25.4 | 28.3   | 20.8 | 25.4      | 19.4 | 20.9         | 13.3 | 30.3   | 21.3 |
| 2014        | 35.5    | 27.1 | 26.7   | 20.3 | 19.6      | 16.3 | 21.6         | 13.0 | 28.3   | 21.3 |
| 2015        | 33.6    | 26.4 | 18.9   | 13.9 | 14.9      | 12.1 | 18.2         | 11.0 | 23.4   | 18.0 |
| 2016        | 28.6    | 21.1 | 16.2   | 12.4 | 12.4      | 9.6  | 16.3         | 9.0  | 19.7   | 14.6 |
| 2017        | 18.9    | 13.0 | 10.5   | 8.0  | 7.7       | 7.0  | 11.4         | 7.2  | 12.8   | 9.6  |
| 2018        | 11.7    | 7.6  | 8.7    | 6.5  | 4.3       | 3.6  | 6.6          | 4.5  | 8.6    | 6.1  |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: The attrition rate drops naturally in the most recent fiscal years because enlisted may not have completed their commitment.

Appendix III: Descriptive Statistics Data Tables

**Table 11: Attrition Rates of Active-Duty Officers (Commissioned and Warrant) for Fiscal Years 2004 through 2018, by Service and Gender**

Figures in percent

| Fiscal year | Service |      |        |      |                        |      |              |      |             |             |
|-------------|---------|------|--------|------|------------------------|------|--------------|------|-------------|-------------|
|             | Army    |      | Navy   |      | Air Force <sup>a</sup> |      | Marine Corps |      | Total       |             |
|             | Female  | Male | Female | Male | Female                 | Male | Female       | Male | Female      | Male        |
| 2004        | 5.5     | 3.6  | 25.8   | 19.2 | 8.4                    | 5.2  | 4.4          | 1.5  | <b>16.9</b> | <b>13.1</b> |
| 2005        | 5.6     | 3.6  | 19.0   | 19.3 | 11.7                   | 7.3  | 3.9          | 1.3  | <b>16.3</b> | <b>15.7</b> |
| 2006        | 5.3     | 2.8  | 24.5   | 20.3 | 6.0                    | 3.0  | 6.1          | 1.8  | <b>19.9</b> | <b>16.1</b> |
| 2007        | 4.5     | 2.6  | 25.9   | 21.8 | 5.0                    | 2.3  | 7.9          | 0.9  | <b>20.3</b> | <b>17.0</b> |
| 2008        | 3.2     | 2.8  | 22.4   | 18.8 | 6.3                    | 3.1  | 3.9          | 1.9  | <b>18.4</b> | <b>15.6</b> |
| 2009        | 5.0     | 2.1  | 18.6   | 13.8 | 5.2                    | 2.1  | 10.1         | 1.9  | <b>15.7</b> | <b>11.3</b> |
| 2010        | 4.0     | 1.8  | 11.9   | 7.9  | 4.5                    | 3.4  | 5.7          | 1.1  | <b>10.3</b> | <b>6.7</b>  |
| 2011        | 3.1     | 2.7  | 8.4    | 4.8  | 4.6                    | 3.6  | 6.1          | 0.9  | <b>7.5</b>  | <b>4.4</b>  |
| 2012        | 2.5     | 2.3  | 3.3    | 1.8  | 5.5                    | 3.5  | 10.9         | 2.5  | <b>3.7</b>  | <b>2.1</b>  |
| 2013        | 2.4     | 2.1  | 2.1    | 2.0  | 7.1                    | 3.9  | 13.9         | 4.0  | <b>3.7</b>  | <b>2.4</b>  |
| 2014        | 2.5     | 2.1  | 2.0    | 2.0  | 6.6                    | 2.7  | 25.2         | 4.1  | <b>4.0</b>  | <b>2.2</b>  |
| 2015        | 2.4     | 2.6  | 1.0    | 1.5  | 3.8                    | 2.9  | 16.5         | 4.2  | <b>2.5</b>  | <b>2.2</b>  |
| 2016        | 1.6     | 1.7  | 2.3    | 1.8  | 2.2                    | 2.9  | 9.3          | 5.0  | <b>2.3</b>  | <b>2.4</b>  |
| 2017        | 0.2     | 0.6  | 2.0    | 1.8  | 2.5                    | 1.9  | 15.6         | 5.9  | <b>2.3</b>  | <b>1.9</b>  |
| 2018        | 0.2     | 0.3  | 1.5    | 1.4  | 2.1                    | 1.4  | 8.3          | 3.3  | <b>1.6</b>  | <b>1.2</b>  |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Note: The attrition rate drops naturally in the most recent fiscal years because officers may not have completed their term obligations.

<sup>a</sup>The Air Force does not have warrant officers.

Appendix III: Descriptive Statistics Data Tables

**Table 12: Promotion Rates of Active-Duty Enlisted Servicemembers for Fiscal Years 2004 through 2018, by Service and Gender**

Figures in percent

| Fiscal year | Service |      |           |      |              |      |        |      |             |             |
|-------------|---------|------|-----------|------|--------------|------|--------|------|-------------|-------------|
|             | Army    |      | Air Force |      | Marine Corps |      | Navy   |      | Total       |             |
|             | Female  | Male | Female    | Male | Female       | Male | Female | Male | Female      | Male        |
| 2004        | 38.3    | 40.8 | 41.4      | 36.2 | 49.4         | 50.8 | 35.5   | 34.6 | <b>39.1</b> | <b>39.7</b> |
| 2005        | 36.8    | 39.1 | 36.9      | 33.5 | 51.2         | 52.0 | 30.8   | 32.1 | <b>36.1</b> | <b>38.1</b> |
| 2006        | 38.0    | 39.8 | 36.1      | 33.6 | 52.2         | 53.5 | 31.8   | 32.1 | <b>36.7</b> | <b>38.7</b> |
| 2007        | 38.3    | 39.1 | 34.0      | 31.5 | 54.3         | 54.7 | 34.6   | 34.2 | <b>37.1</b> | <b>38.8</b> |
| 2008        | 37.5    | 39.2 | 33.8      | 32.8 | 52.9         | 54.8 | 34.0   | 32.9 | <b>36.6</b> | <b>39.0</b> |
| 2009        | 36.8    | 37.6 | 36.0      | 34.6 | 51.0         | 53.6 | 37.1   | 34.4 | <b>37.6</b> | <b>39.0</b> |
| 2010        | 33.3    | 34.2 | 34.3      | 34.8 | 47.9         | 46.2 | 33.5   | 29.8 | <b>34.7</b> | <b>35.3</b> |
| 2011        | 31.5    | 32.6 | 34.8      | 35.4 | 47.6         | 44.8 | 33.3   | 30.3 | <b>34.1</b> | <b>34.6</b> |
| 2012        | 31.4    | 32.8 | 33.5      | 35.4 | 45.8         | 43.9 | 35.6   | 32.0 | <b>34.3</b> | <b>34.9</b> |
| 2013        | 31.2    | 32.4 | 32.1      | 33.2 | 47.5         | 46.0 | 41.0   | 36.2 | <b>35.7</b> | <b>35.8</b> |
| 2014        | 34.4    | 35.3 | 29.4      | 30.8 | 50.2         | 48.7 | 38.5   | 34.7 | <b>35.8</b> | <b>36.7</b> |
| 2015        | 34.4    | 34.9 | 29.8      | 29.9 | 51.8         | 46.7 | 38.2   | 34.0 | <b>35.9</b> | <b>35.7</b> |
| 2016        | 35.3    | 34.6 | 32.9      | 32.1 | 52.3         | 50.4 | 33.4   | 29.9 | <b>35.5</b> | <b>35.7</b> |
| 2017        | 39.3    | 38.7 | 36.4      | 34.8 | 53.5         | 51.7 | 33.5   | 29.7 | <b>38.0</b> | <b>38.0</b> |
| 2018        | 41.7    | 41.7 | 39.4      | 36.9 | 55.0         | 53.3 | 37.5   | 32.9 | <b>40.9</b> | <b>40.6</b> |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Appendix III: Descriptive Statistics Data Tables

**Table 13: Promotion Rates of Active-Duty Commissioned Officers for Fiscal Years 2004 through 2018, by Service and Gender**  
 Figures in percent

| Fiscal year | Service |      |           |      |              |      |        |      |        |      |
|-------------|---------|------|-----------|------|--------------|------|--------|------|--------|------|
|             | Army    |      | Air Force |      | Marine Corps |      | Navy   |      | Total  |      |
|             | Female  | Male | Female    | Male | Female       | Male | Female | Male | Female | Male |
| 2004        | 32.6    | 26.4 | 35.4      | 29.7 | 32.5         | 26.1 | 33.1   | 31.1 | 33.8   | 28.6 |
| 2005        | 40.9    | 34.5 | 35.3      | 29.6 | 35.8         | 28.2 | 31.6   | 29.8 | 36.5   | 31.2 |
| 2006        | 38.5    | 33.3 | 35.1      | 31.7 | 37.6         | 28.9 | 31.6   | 29.2 | 35.6   | 31.4 |
| 2007        | 38.2    | 33.2 | 33.5      | 29.6 | 42.9         | 32.1 | 31.4   | 28.6 | 35.0   | 30.8 |
| 2008        | 34.8    | 31.8 | 32.6      | 28.6 | 41.2         | 31.9 | 31.4   | 28.9 | 33.5   | 30.1 |
| 2009        | 36.3    | 32.2 | 32.3      | 27.4 | 39.9         | 31.6 | 30.7   | 28.2 | 33.7   | 29.7 |
| 2010        | 35.5    | 32.4 | 30.7      | 26.3 | 36.8         | 31.0 | 32.4   | 28.7 | 33.1   | 29.5 |
| 2011        | 35.0    | 32.1 | 30.3      | 26.6 | 38.4         | 31.8 | 34.5   | 28.8 | 33.4   | 29.6 |
| 2012        | 28.1    | 24.9 | 32.4      | 27.3 | 35.7         | 29.0 | 33.1   | 25.8 | 31.0   | 26.3 |
| 2013        | 27.3    | 25.2 | 29.5      | 25.3 | 37.4         | 30.5 | 32.8   | 26.4 | 29.6   | 26.1 |
| 2014        | 25.2    | 23.0 | 32.8      | 27.2 | 36.4         | 29.8 | 32.1   | 25.2 | 29.6   | 25.3 |
| 2015        | 24.1    | 22.8 | 32.1      | 26.9 | 33.8         | 25.0 | 31.2   | 26.2 | 28.6   | 25.0 |
| 2016        | 24.5    | 22.6 | 35.2      | 29.7 | 34.2         | 23.6 | 31.3   | 25.6 | 29.9   | 25.4 |
| 2017        | 25.8    | 23.7 | 34.2      | 30.5 | 29.8         | 24.5 | 32.4   | 26.9 | 30.2   | 26.4 |
| 2018        | 26.6    | 24.6 | 33.5      | 29.4 | 36.8         | 30.2 | 32.5   | 27.4 | 30.6   | 27.1 |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

Appendix III: Descriptive Statistics Data Tables

**Table 14: Promotion Rates of Active-Duty Warrant Officers for Fiscal Years 2004 through 2018, by Service and Gender**  
 Figures in percent

| Fiscal Year | Service <sup>a</sup> |      |              |      |        |      |             |             |
|-------------|----------------------|------|--------------|------|--------|------|-------------|-------------|
|             | Army                 |      | Marine Corps |      | Navy   |      | Total       |             |
|             | Female               | Male | Female       | Male | Female | Male | Female      | Male        |
| 2004        | 43.3                 | 39.8 | 85.3         | 78.3 | 81.8   | 60.1 | <b>47.4</b> | <b>44.5</b> |
| 2005        | 50.0                 | 40.6 | 87.0         | 77.4 | 93.1   | 76.5 | <b>56.9</b> | <b>47.0</b> |
| 2006        | 54.1                 | 47.0 | 91.2         | 77.3 | 92.0   | 80.1 | <b>58.5</b> | <b>51.9</b> |
| 2007        | 82.2                 | 63.0 | 73.1         | 78.2 | 89.5   | 82.1 | <b>82.0</b> | <b>65.7</b> |
| 2008        | 85.3                 | 64.0 | 60.0         | 79.2 | 83.3   | 85.1 | <b>82.8</b> | <b>67.2</b> |
| 2009        | 82.4                 | 63.7 | 56.3         | 75.8 | 92.9   | 82.4 | <b>79.8</b> | <b>66.2</b> |
| 2010        | 78.9                 | 58.3 | 68.9         | 76.9 | 91.3   | 82.7 | <b>78.5</b> | <b>62.2</b> |
| 2011        | 72.6                 | 49.2 | 63.6         | 69.7 | 94.1   | 83.1 | <b>72.7</b> | <b>53.4</b> |
| 2012        | 63.4                 | 47.2 | 57.9         | 72.3 | 72.7   | 80.7 | <b>63.2</b> | <b>51.5</b> |
| 2013        | 40.7                 | 37.2 | 63.6         | 67.0 | 85.2   | 71.6 | <b>44.3</b> | <b>41.8</b> |
| 2014        | 36.1                 | 32.5 | 75.9         | 64.6 | 44.0   | 52.0 | <b>39.4</b> | <b>36.7</b> |
| 2015        | 33.1                 | 31.9 | 59.5         | 63.8 | 42.3   | 50.4 | <b>34.7</b> | <b>36.1</b> |
| 2016        | 27.5                 | 28.9 | 60.5         | 56.2 | 66.7   | 49.9 | <b>30.7</b> | <b>32.6</b> |
| 2017        | 41.5                 | 34.6 | 57.5         | 55.7 | 63.6   | 62.6 | <b>43.6</b> | <b>38.6</b> |
| 2018        | 40.6                 | 36.7 | 49.0         | 62.1 | 69.0   | 59.7 | <b>42.4</b> | <b>40.9</b> |

Source: GAO Analysis of Department of Defense data. | GAO-20-61

<sup>a</sup>The Air Force does not have warrant officers.

## Appendix IV: Analysis and Comparison of Active-Duty Servicemember Separation with Characteristics

We developed a set of statistical models—all discrete time duration analysis—using data from fiscal years 2004 through 2018, which accounted for active-duty servicemembers’ time in service—that is, the period of time from when they joined the military until their separation.<sup>1</sup> We controlled for specific servicemember characteristics such as gender, branch of military service, pay grade, race or ethnicity, marital status, and the existence of dependents to estimate the association of these characteristics on the likelihood of active-duty servicemembers separating from the service. Table 15 depicts the results of our analysis. Positive numbers higher than 1.0 indicate the comparison group (e.g., married female servicemembers without dependents) is more likely to separate than the baseline group (e.g., unmarried female servicemembers without dependents). Positive numbers lower than 1.0 indicate the comparison group (e.g., female officers) is less likely to separate than the baseline group (e.g., female enlisted).

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<sup>1</sup>Separations include those who separated from the military for various reasons other than retirement or death. We used a duration analysis to examine the association in the likelihood of separation across different groups. While the annual attrition rates summarize the number of enlisted servicemembers who separated from the military more than 1 week before the completion of their term of service, and officers who left the military prior to completing 3 years of service, the likelihood of separation considers the entire duration of service for military servicemembers until they separate from the military.

**Appendix IV: Analysis and Comparison of  
Active-Duty Servicemember Separation with  
Characteristics**

**Table 15: Likelihood of Active- Duty Servicemember Separation by Gender, Odds Ratios Compared with Baseline**

|  | <b>All</b> | <b>Army</b> | <b>Navy</b> | <b>Marine Corps</b> | <b>Air Force</b> |
|--|------------|-------------|-------------|---------------------|------------------|
| Female servicemember compared to male servicemember baseline       | 1.280***   | 1.355***    | 1.303***    | 1.464***            | 1.130***         |
|  | (0.00275)  | (0.00459)   | (0.00626)   | (0.0130)            | (0.00521)        |
| <b>Female servicemembers compared to female baseline</b>           |            |             |             |                     |                  |
| <b>Baseline: Unmarried female servicemember without dependents</b> |            |             |             |                     |                  |
| Married without dependents   |            | 1.676***    | 2.159***    | 1.519***            | 1.980***         |
|  |            | (0.0245)    | (0.0362)    | (0.0421)            | (0.0606)         |
| Married with dependents  |            | 1.189***    | 1.167***    | 1.030               | 1.203***         |
|  |            | (0.00832)   | (0.0123)    | (0.0251)            | (0.0111)         |
| Unmarried with dependents  |            | 1.316***    | 1.345***    | 1.140***            | 1.244***         |
|  |            | (0.0117)    | (0.0192)    | (0.0382)            | (0.0172)         |
| <b>Baseline: Female enlisted</b>                                   |            |             |             |                     |                  |
| Officers   |            | 0.106***    | 0.383***    | 0.574***            | 0.748***         |
|  |            | (0.0209)    | (0.0201)    | (0.0750)            | (0.0288)         |
| Warrant officers   |            | 0.121***    | 0.349***    | 0.758               |                  |
|  |            | (0.0234)    | (0.0592)    | (0.137)             |                  |
| <b>Baseline: White female servicemembers</b>                       |            |             |             |                     |                  |
| Hispanic   |            | 0.764***    | 0.799***    | 0.611***            | 0.728***         |
|  |            | (0.00741)   | (0.0103)    | (0.0148)            | (0.0122)         |
| Black  |            | 0.823***    | 0.831***    | 0.860***            | 0.831***         |
|  |            | (0.00580)   | (0.00909)   | (0.0207)            | (0.00828)        |
| Other racial minority  |            | 1.262***    | 0.871***    | 0.792***            | 0.738***         |
|  |            | (0.0109)    | (0.0108)    | (0.0244)            | (0.0100)         |
| <b>Male servicemember compared to male baseline</b>                |            |             |             |                     |                  |
| <b>Baseline: Unmarried male without dependents</b>                 |            |             |             |                     |                  |
| Married without dependents   |            | 1.745***    | 2.015***    | 2.154***            | 1.973***         |
|  |            | (0.0192)    | (0.0268)    | (0.0351)            | (0.0420)         |
| Married with dependents  |            | 0.979***    | 0.724***    | 0.932***            | 1.022***         |
|  |            | (0.00331)   | (0.00370)   | (0.00640)           | (0.00526)        |
| Unmarried with dependents  |            | 1.094***    | 0.886***    | 1.149***            | 1.178***         |
|  |            | (0.00535)   | (0.00869)   | (0.0155)            | (0.0110)         |
| <b>Baseline: Enlisted male</b>                                     |            |             |             |                     |                  |
| Officers   |            | 0.157***    | 0.370***    | 0.250***            | 0.849***         |
|  |            | (0.00853)   | (0.00992)   | (0.0141)            | (0.0161)         |
| Warrant officers   |            | 0.188***    | 0.403***    | 0.279***            |                  |
|  |            | (0.00997)   | (0.0165)    | (0.0172)            |                  |

**Appendix IV: Analysis and Comparison of  
Active-Duty Servicemember Separation with  
Characteristics**

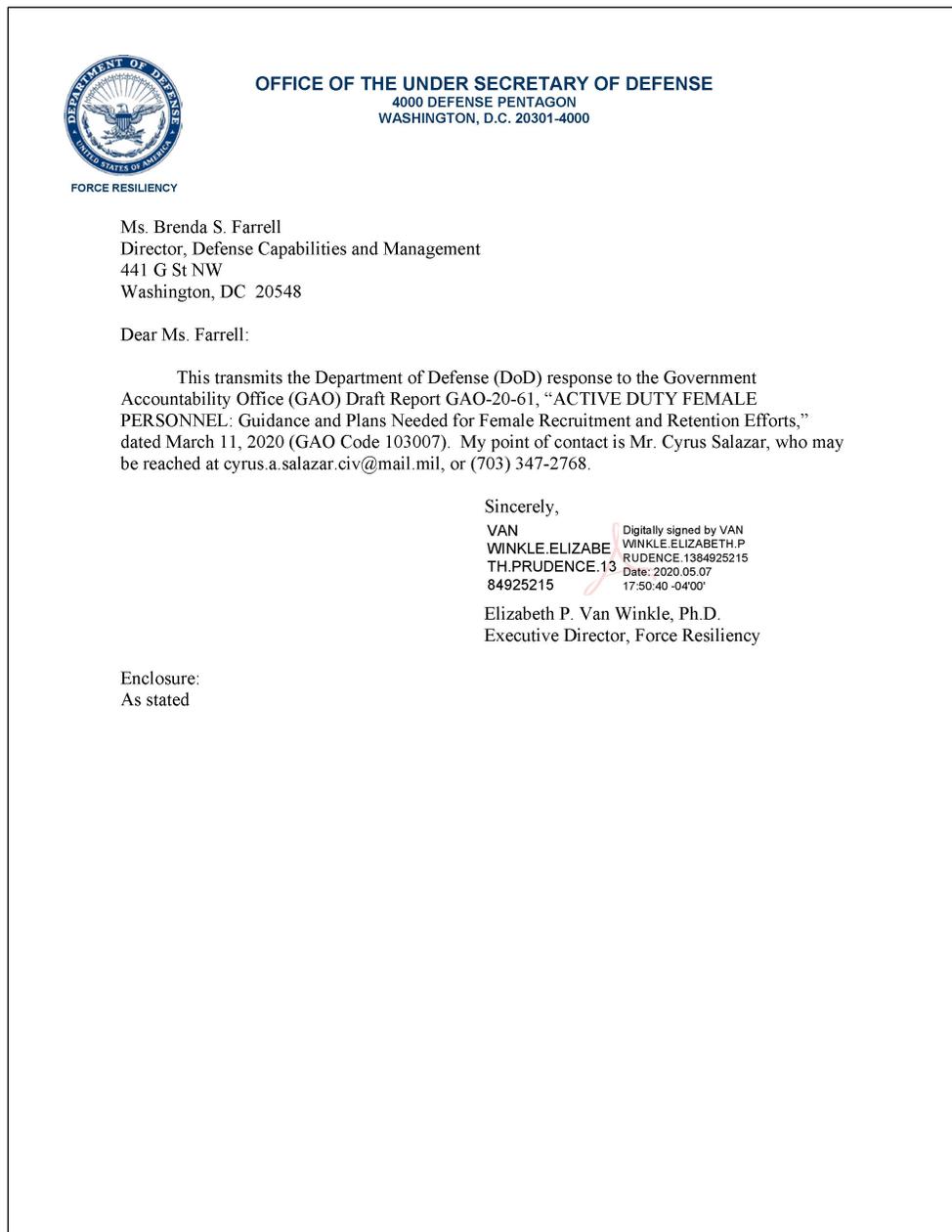
|                                 | <b>All</b> | <b>Army</b>           | <b>Navy</b>           | <b>Marine Corps</b>   | <b>Air Force</b>      |
|---------------------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Baseline: White male</b>     |            |                       |                       |                       |                       |
| Hispanic                        |            | 0.882***<br>(0.00397) | 0.954***<br>(0.00630) | 0.805***<br>(0.00651) | 0.821***<br>(0.00775) |
| Black                           |            | 1.117***<br>(0.00396) | 1.069***<br>(0.00637) | 1.049***<br>(0.00898) | 1.047***<br>(0.00633) |
| Other racial or ethnic minority |            | 1.869***<br>(0.00712) | 0.913***<br>(0.00590) | 0.899***<br>(0.00989) | 0.837***<br>(0.00670) |

Legend: “\*\*\*” indicates that this variable is statistically significant at p-value < 0.01; “\*\*” indicates that this variable is statistically significant at p-value < 0.05; “\*” indicates that this variable is statistically significant at p-value < 0.1. Standard errors are presented in parentheses.

Source: GAO analysis of DOD data. | GAO-20-61.

Odds ratios from the duration analysis allow us to compare the relative relationships between various characteristics and separation from the military. For categorical variables, increase or decrease in the likelihood of separation is in comparison to an omitted category, or reference baseline group. Odds ratios that are statistically significant and greater than 1.00 indicate that servicemembers with those characteristics are more likely to separate than the baseline group. Odds ratio that are less than 1.00 indicate that servicemembers with those characteristics are less likely to separate. For example, the odds ratio for married female servicemembers with dependents in the Air Force are 1.203. This implies that the odds of separation for married female servicemembers with dependents in the Air Force are 1.203 times the odds of separation for unmarried female servicemembers without dependents in the Air Force, holding other factors constant, or that the odds of separation for married female servicemembers with dependents in the Air Force are about 20 percent higher than single female servicemembers without dependents in the Air Force, if other conditions remain constant.

# Appendix V: Comments from the Department of Defense



**GAO DRAFT REPORT DATED MARCH 11, 2020  
GAO-20-61 (GAO CODE 103007)**

**“ACTIVE DUTY FEMALE PERSONNEL: GUIDANCE AND PLANS NEEDED FOR  
FEMALE RECRUITMENT AND RETENTION EFFORTS”**

**DEPARTMENT OF DEFENSE COMMENTS  
TO THE GAO RECOMMENDATION**

**RECOMMENDATION 1:** The GAO recommends that the Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness provides guidance to the services, for example, in its forthcoming diversity and inclusion strategic plan, to develop plans, with clearly defined goals, performance measures, and timelines, to guide and monitor recruitment and retention efforts of female active duty servicemembers in the military.

**DoD RESPONSE:** Concur. While neither the Department of Defense nor the Military Services set recruitment, accession or retention goals based on race or gender, DoD will continue to study the dynamics of female recruitment, accession and retention. To that end, in 2016 and 2017 the RAND Corporation published two Office of the Under Secretary of Defense for Personnel and Readiness sponsored studies titled, “Explaining Gender Differences in Officer Career Progression” and “Recruiting Policies and Practices for Women in the Military,” respectively. The results of these studies drove changes to targeting retention of women, such as increased maternity leave. The Joint Advertising Marketing Research and Studies activity also conducts ongoing survey and analysis of the dynamics of the current market, to include the recruitment and retention of women. Additionally, the Department will provide guidance to the Military Services in the upcoming DoD Diversity and Inclusion Instruction and Diversity and Inclusion Strategic Plan both of which are scheduled to be published by Fall 2020.

**RECOMMENDATION 2:** The GAO recommends that the Secretary of the Army should develop a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Army’s female active duty servicemember recruitment and retention efforts.

**DoD RESPONSE:** Concur. The Army’s current policies for recruitment and retention are gender neutral and current practices and policies have proven effective for the Army’s overall retention and recruitment efforts. The Army continues to focus its recruiting efforts on “Quality over Quantity” and strives to recruit all qualified individuals regardless of race or gender, mirroring the diversity and ethnicity of the United States. To ensure the Army addresses the unique concerns of women, it will continue its long-term studies on gender integration and use a standards-based approach to increase the diversity in all its units. The Officer and Enlisted Recruitment Program, in concert with the Army Retention Program, will monitor gender recruitment and retention trends and provide updates to Army Senior Leaders.

**RECOMMENDATION 3:** The GAO recommends that the Secretary of the Navy should develop a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Navy’s female active duty servicemember recruitment and retention efforts.

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**Appendix V: Comments from the Department of Defense**

**DoD RESPONSE:** Concur. The Department of the Navy (DON) recognizes the importance of diversity and inclusion efforts and will ensure DON diversity and inclusion plans guide recruitment and retention efforts of female Service members. These efforts will be consistent with the DoD Diversity and Inclusion Strategic Plan, DoD regulations, merit principles, and the requirements of Section 543 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law as amended by Section 523 of the National Defense Authorization Act for Fiscal Year 2014 (P.L. 113-66), which place certain prohibitions on gender quotas, goals, and ceilings for military career designators. These plans will have metrics, measures, and timelines to guide and monitor female active duty recruitment and retention efforts.

**RECOMMENDATION 4:** The GAO recommends that the Secretary of the Navy should ensure that the Commandant of the Marine Corps develops a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Marine Corp's female active duty servicemember recruitment and retention efforts

**DoD RESPONSE:** Concur. The Department of the Navy (DON) recognizes the importance of diversity and inclusion efforts and will ensure DON diversity and inclusion plans guide recruitment and retention efforts of female Service members. These efforts will be consistent with the DoD Diversity and Inclusion Strategic Plan, DoD regulations, merit principles, and the requirements of Section 543 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law as amended by Section 523 of the National Defense Authorization Act for Fiscal Year 2014 (P.L. 113-66), which place certain prohibitions on gender quotas, goals, and ceilings for military career designators. These plans will have metrics, measures, and timelines to guide and monitor female active duty recruitment and retention efforts.

**RECOMMENDATION 5:** The GAO recommends that the Secretary of the Air Force should develop a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Air Force's female active duty servicemember recruitment and retention efforts

**DoD RESPONSE:** Concur. The report recommends the Secretary of the Air Force develop a plan to guide and monitor female Active Duty Service member recruitment and retention efforts. The Air Force recognizes the value of having a master plan and highlights its Air Force Diversity and Inclusion Flight Plan; its Aircrew Task Force's Rated Diversity Initiatives; and Air Force Barrier Analysis Working Groups, including a Women's Initiative Team, as examples of the manner in which the Air Force is already pursuing diversity, including women. The Air Force will continue to use, and expand as necessary, the Diversity and Inclusion Flight Plan to meet this, as well as other, diversity imperatives.

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## Agency Comment Letter

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### Text of Appendix V: Comments from the Department of Defense

#### Page 1

Ms. Brenda S. Farrell  
Director, Defense Capabilities and Management  
441 G St NW  
Washington, DC 20548

Dear Ms. Farrell:

This transmits the Department of Defense (DoD) response to the Government Accountability Office (GAO) Draft Report GAO-20-61, "ACTIVE DUTY FEMALE PERSONNEL: Guidance and Plans Needed for Female Recruitment and Retention Efforts," dated March 11, 2020 (GAO Code 103007). My point of contact is Mr. Cyrus Salazar, who may be reached at [cyrus.a.salazar.civ@mail.mil](mailto:cyrus.a.salazar.civ@mail.mil), or (703) 347-2768.

Sincerely,

Elizabeth P. Van Winkle, Ph.D.  
Executive Director, Force Resiliency

Enclosure:  
As stated

#### Page 2

#### **RECOMMENDATION 1:**

The GAO recommends that the Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness provides guidance to the services, for example, in its forthcoming diversity and inclusion strategic plan, to develop plans, with clearly defined goals, performance measures, and timelines, to guide and monitor recruitment and retention efforts of female active duty servicemembers in the military.

DoD RESPONSE: Concur. While neither the Department of Defense nor the Military Services set recruitment, accession or retention goals based on race or gender, DoD will continue to study the dynamics of female recruitment, accession and retention. To that end, in 2016 and 2017 the RAND Corporation published two Office of the

Under Secretary of Defense for Personnel and Readiness sponsored studies titled, “Explaining Gender Differences in Officer Career Progression” and “Recruiting Policies and Practices for Women in the Military,” respectively.

The results of these studies drove changes to targeting retention of women, such as increased maternity leave. The Joint Advertising Marketing Research and Studies activity also conducts ongoing survey and analysis of the dynamics of the current market, to include the recruitment and retention of women. Additionally, the Department will provide guidance to the Military Services in the upcoming DoD Diversity and Inclusion Instruction and Diversity and Inclusion Strategic Plan both of which are scheduled to be published by Fall 2020.

**RECOMMENDATION 2:**

The GAO recommends that the Secretary of the Army should develop a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Army’s female active duty servicemember recruitment and retention efforts.

DoD RESPONSE: Concur. The Army’s current policies for recruitment and retention are gender neutral and current practices and policies have proven effective for the Army’s overall retention and recruitment efforts. The Army continues to focus its recruiting efforts on “Quality over Quantity” and strives to recruit all qualified individuals regardless of race or gender, mirroring the diversity and ethnicity of the United States. To ensure the Army addresses the unique concerns of women, it will continue its long-term studies on gender integration and use a standards-based approach to increase the diversity in all its units. The Officer and Enlisted Recruitment Program, in concert with the Army Retention Program, will monitor gender recruitment and retention trends and provide updates to Army Senior Leaders.

**RECOMMENDATION 3:**

The GAO recommends that the Secretary of the Navy should develop a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Navy’s female active duty servicemember recruitment and retention efforts.

Page 3

DoD RESPONSE: Concur. The Department of the Navy (DON) recognizes the importance of diversity and inclusion efforts and will ensure DON diversity and inclusion plans guide recruitment and retention efforts of female Service members. These efforts will be consistent with the DoD Diversity and Inclusion Strategic Plan, DoD regulations, merit principles, and the requirements of Section 543 of the

National Defense Authorization Act for Fiscal Year 1994 (Public Law as amended by Section 523 of the National Defense Authorization Act for Fiscal Year 2014 (P.L. 113-66), which place certain prohibitions on gender quotas, goals, and ceilings for military career designators. These plans will have metrics, measures, and timelines to guide and monitor female active duty recruitment and retention efforts.

**RECOMMENDATION 4:**

The GAO recommends that the Secretary of the Navy should ensure that the Commandant of the Marine Corps develops a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Marine Corp's female active duty servicemember recruitment and retention efforts

DoD RESPONSE: Concur. The Department of the Navy (DON) recognizes the importance of diversity and inclusion efforts and will ensure DON diversity and inclusion plans guide recruitment and retention efforts of female Service members. These efforts will be consistent with the DoD Diversity and Inclusion Strategic Plan, DoD regulations, merit principles, and the requirements of Section 543 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law as amended by Section 523 of the National Defense Authorization Act for Fiscal Year 2014 (P.L. 113-66), which place certain prohibitions on gender quotas, goals, and ceilings for military career designators. These plans will have metrics, measures, and timelines to guide and monitor female active duty recruitment and retention efforts.

**RECOMMENDATION 5:**

The GAO recommends that the Secretary of the Air Force should develop a plan, with clearly defined goals, performance measures, and timelines, to guide and monitor the Air Force's female active duty servicemember recruitment and retention efforts

DoD RESPONSE: Concur. The report recommends the Secretary of the Air Force develop a plan to guide and monitor female Active Duty Service member recruitment and retention efforts. The Air Force recognizes the value of having a master plan and highlights its Air Force Diversity and Inclusion Flight Plan; its Aircrew Task Force's Rated Diversity Initiatives; and Air Force Barrier Analysis Working Groups, including a Women's Initiative Team, as examples of the manner in which the Air Force is already pursuing diversity, including women. The Air Force will continue to use, and expand as necessary, the Diversity and Inclusion Flight Plan to meet this, as well as other, diversity imperatives.

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# Appendix VI: GAO Contact and Staff Acknowledgments

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## GAO Contact

Brenda S. Farrell, (202) 512-3604 or [farrellb@gao.gov](mailto:farrellb@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, Kimberly Mayo (Assistant Director), Jennifer Weber (Analyst in Charge), Adriana Aldgate, Emily Biskup, Charles Culverwell, Edda Emmanuelli-Perez, Cynthia Grant, Chad Hinsch, Yvonne Jones, Zina Merritt, Amie Lesser, Samuel Moore, Moon Parks, Steven Putansu, Leigh Ann Sheffield, Michael Silver, Pamela Snedden, Carter Stevens, Elaine Vaurio, and Lillian M. Yob made key contributions to this report.

# Appendix VI: Accessible Data

## Data Tables

**Data Table for Highlights Summary Page Figure**

| Year | Rank            | Female | Male  |
|------|-----------------|--------|-------|
| 2004 | Officer         | 18.72  | 81.28 |
|      | Warrant officer | 9.03   | 90.97 |
|      | Enlisted        | 16.2   | 83.8  |
|      | Total           | 15.1   | 84.9  |
| 2018 | Officer         | 18.72  | 81.28 |
|      | Warrant officer | 9.03   | 90.97 |
|      | Enlisted        | 16.2   | 83.8  |
|      | Total           | 16.5   | 83.5  |

**Data Table for Figure 2: Representation of Active-Duty Servicemembers by Gender, Organization, and Pay Grade, Fiscal Year 2018**

|                 | DOD    |       | Army   |       | Navy   |       | Marine Corps |       | Air Force |       |
|-----------------|--------|-------|--------|-------|--------|-------|--------------|-------|-----------|-------|
|                 | Female | Male  | Female | Male  | Female | Male  | Female       | Male  | Female    | Male  |
| Total           | 16.5   | 83.5  | 15.1   | 84.9  | 19.6   | 80.4  | 8.6          | 91.4  | 20.2      | 79.8  |
| Officer         | 18.72  | 81.28 | 18.97  | 81.03 | 19.21  | 80.79 | 7.9          | 92.1  | 21.33     | 78.67 |
| Warrant officer | 9.03   | 90.97 | 9.7    | 90.3  | 7.16   | 92.84 | 5.87         | 94.13 | N/A       | N/A   |
| Enlisted        | 16.2   | 83.8  | 14.5   | 85.5  | 19.78  | 80.22 | 8.71         | 91.29 | 19.95     | 80.05 |

**Data Table for Figure 3: Female Active-Duty Servicemember Representation, by Organization, for Select Years (fiscal years 2004- 2018)**

| Year | DOD  | Army | Navy | Marine Corps | Air Force |
|------|------|------|------|--------------|-----------|
| 2004 | 15.1 | 15.3 | 14.7 | 6.1          | 19.8      |
| 2006 | 14.8 | 14.4 | 14.7 | 6.3          | 19.9      |
| 2008 | 14.5 | 13.9 | 15.1 | 6.3          | 19.8      |
| 2010 | 14.5 | 13.7 | 16   | 6.7          | 19.4      |
| 2012 | 14.7 | 13.6 | 17.1 | 7            | 19.1      |
| 2014 | 15.2 | 13.9 | 18   | 7.6          | 19        |
| 2016 | 15.8 | 14.6 | 18.9 | 8            | 19.5      |
| 2018 | 16.5 | 15.1 | 19.6 | 8.6          | 20.2      |

**Data Table for Figure 4: Percentages of Male and Female Active-Duty Servicemembers, by Years of Service and Pay Grade, Fiscal Years 2004-2018**

| Rank            | Tenure                   | 2004-2008 |       | 2009-2013 |       | 2014-2018 |       |
|-----------------|--------------------------|-----------|-------|-----------|-------|-----------|-------|
|                 |                          | Female    | Male  | Female    | Male  | Female    | Male  |
| Enlisted        | Less than 3 years        | 17.09     | 82.91 | 16.8      | 83.2  | 18.01     | 81.99 |
|                 | 3 to less than 10 years  | 15.42     | 84.58 | 14.34     | 85.66 | 15.39     | 84.61 |
|                 | 10 to less than 20 years | 13.11     | 86.89 | 13.86     | 86.14 | 14        | 86    |
|                 | 20 years or more         | 9.82      | 90.18 | 10.6      | 89.4  | 12.01     | 87.99 |
| Officer         | Less than 3 years        | 22.5      | 77.5  | 23.73     | 76.27 | 24.03     | 75.97 |
|                 | 3 to less than 10 years  | 20.73     | 79.27 | 20.38     | 79.62 | 21.38     | 78.62 |
|                 | 10 to less than 20 years | 14.46     | 85.54 | 15.08     | 84.92 | 15.81     | 84.19 |
|                 | 20 years or more         | 10.67     | 89.33 | 11.52     | 88.48 | 12.13     | 87.87 |
| Warrant officer | Less than 3 years        | 8.8       | 91.2  | 4.69      | 95.31 | 6.49      | 93.51 |
|                 | 3 to less than 10 years  | 7.13      | 92.87 | 6.69      | 93.31 | 6.97      | 93.03 |
|                 | 10 to less than 20 years | 9.28      | 90.72 | 9.93      | 90.07 | 9.68      | 90.32 |
|                 | 20 years or more         | 6.03      | 93.97 | 6.83      | 93.17 | 8.26      | 91.74 |

Appendix VI: Accessible Data

**Data Table for Figure 5: Active-Duty Servicemember Annual Attrition Rates by Gender and Pay Grade, Fiscal Years 2004-2018**

| Year | Enlisted |        | Officer |        | Warrant officer |        |
|------|----------|--------|---------|--------|-----------------|--------|
|      | Male     | Female | Male    | Female | Male            | Female |
| 2004 | 22.72    | 33.07  | 6.01    | 9.95   | 3.15            | 12.5   |
| 2005 | 18.97    | 30.38  | 4.62    | 8.5    | 3.05            | 0      |
| 2006 | 19.45    | 29.91  | 2.67    | 5.68   | 7.41            | 7.14   |
| 2007 | 21.32    | 31.13  | 2.38    | 4.94   | 0.74            | 0      |
| 2008 | 21.17    | 30.38  | 2.87    | 4.74   | 11.97           | 0      |
| 2009 | 21.81    | 29.99  | 2.76    | 5.66   | 4.39            | 28.57  |
| 2010 | 20.8     | 28.23  | 2.81    | 4.86   | 6.72            | 0      |
| 2011 | 20.64    | 27.38  | 3.22    | 4.04   | 6.49            | 16.67  |
| 2012 | 20.75    | 28.24  | 2.93    | 4.44   | 4.88            | 0      |
| 2013 | 21.25    | 30.3   | 3.62    | 4.8    | 2.27            | 14.29  |
| 2014 | 21.32    | 28.32  | 2.96    | 4.46   | 1.33            | 0      |
| 2015 | 17.96    | 23.44  | 2.83    | 3.03   | 2.9             | 0      |
| 2016 | 14.57    | 19.7   | 2.04    | 1.86   | 4.55            | 0      |
| 2017 | 9.63     | 12.78  | 0.82    | 0.95   | 7.46            | 0      |
| 2018 | 6.11     | 8.59   | 0.41    | 0.72   | 0               | 0      |

**Data Table for Figure 9: Active-Duty Servicemember Annual Promotion Rates by Gender and Pay Grade, Fiscal Years 2004-2018**

| Year | Enlisted |        | Officer |        | Warrant officer |        |
|------|----------|--------|---------|--------|-----------------|--------|
|      | Male     | Female | Male    | Female | Male            | Female |
| 2004 | 39.7     | 39.1   | 28.6    | 33.8   | 44.5            | 47.4   |
| 2005 | 38.1     | 36.1   | 31.2    | 36.5   | 47              | 56.9   |
| 2006 | 38.7     | 36.7   | 31.4    | 35.6   | 51.9            | 58.5   |
| 2007 | 38.8     | 37.1   | 30.8    | 35     | 65.7            | 82     |
| 2008 | 39       | 36.6   | 30.1    | 33.5   | 67.2            | 82.8   |
| 2009 | 39       | 37.6   | 29.7    | 33.7   | 66.2            | 79.8   |
| 2010 | 35.3     | 34.7   | 29.5    | 33.1   | 62.2            | 78.5   |
| 2011 | 34.6     | 34.1   | 29.6    | 33.4   | 53.4            | 72.7   |
| 2012 | 34.9     | 34.3   | 26.3    | 31     | 51.5            | 63.2   |
| 2013 | 35.8     | 35.7   | 26.1    | 29.6   | 41.8            | 44.3   |
| 2014 | 36.7     | 35.8   | 25.3    | 29.6   | 36.7            | 39.4   |
| 2015 | 35.7     | 35.9   | 25      | 28.6   | 36.1            | 34.7   |
| 2016 | 35.7     | 35.5   | 25.4    | 29.9   | 32.6            | 30.7   |
| 2017 | 38       | 38     | 26.4    | 30.2   | 38.6            | 43.6   |
| 2018 | 40.6     | 40.9   | 27.1    | 30.6   | 40.9            | 42.4   |

## Related GAO Products

*Military Personnel: Observations on the Department of Defense's Career Intermission Pilot Program.* [GAO-17-623R](#). Washington, D.C.: May 31, 2017.

*Military Personnel: Oversight Framework and Evaluations Needed for DOD and the Coast Guard to Help Increase the Number of Female Officer Applicants.* [GAO-16-55](#). Washington, D.C.: November 13, 2015.

*Military Personnel: DOD Should Develop a Plan to Evaluate the Effectiveness of Its Career Intermission Pilot Program.* [GAO-16-35](#). Washington, D.C.: October 27, 2015.

*Military Personnel: DOD Is Expanding Combat Service Opportunities for Women, but Should Monitor Long-Term Integration Progress.* [GAO-15-589](#). Washington, D.C.: July 20, 2015.

*Military Child Care: DOD Is Taking Actions to Address Awareness and Availability Barriers.* [GAO-12-21](#). Washington, D.C.: February 3, 2012.

*Women in the Military: Attrition and Retention.* [GAO/NSIAD-90-87BR](#). Washington, D.C.: July 26, 1990.

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