



DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC

OFFICE OF THE SECRETARY

10 May 2023

MEMORANDUM FOR DACOWITS

FROM: HQ USAF
1720 Air Force Pentagon
Washington DC 20330-1720

SUBJECT: USAF DACOWITS RFI Response RFI #9

QUESTION #9

In 2019, the Committee recommended the Secretary of Defense “establish a DoD policy that defines and provides guidance to eliminate conscious and unconscious gender bias” with a view to tackling the bias that has impeded servicewomen’s promotion and advancement opportunities. The Committee continues to be interested in the gender barriers servicewomen confront during their service. Women in the military and across all industries have historically lagged behind men in career progression opportunities and promotion rates, and women in male-dominated industries (such as the military) typically encounter even greater barriers and resistance to career progression. Gender bias is among the barriers that servicewomen have and continue to experience in their career progression.

a. Promotion results in 2010, 2015, 2020 and 2022:

i. By gender, grade, occupational specialty/MOS/community, number and percentage of males/females considered.

See the file “DACOWITS USAF Officer Select Rate Data ByGender.xlsx” for the USAF Officer Central Selection Board promotion data and the tab labeled “(a.i) Considered for E5 to E9” on the file “DACOWITS USAF Enlisted Select Rate Data ByGender.xlsx” for the USAF Enlisted Central Selection Board considered promotion data.

ii. By gender, grade, occupational specialty/MOS/community, number and percentage of males/females selected for enlisted (E-7 thru E-9) and officer (O-4 thru O-6) competitive promotion selection boards.

See the file “DACOWITS USAF Officer Select Rate Data ByGender.xlsx” for the USAF Officer Central Selection Board promotion data and the tab labeled “(a.ii) Selected for E7 to E9” on the file “DACOWITS USAF Enlisted Selection Select Rate Data ByGender.xlsx” for the USAF Enlisted Central Selection Board selection promotion data.

iii. The top 5 gender promotion variances by MOS/rating, for enlisted (E-7 thru E-9) and officer (O-4 thru O-6).

USAF Central Selection Board Officer (O-4 thru O-6) Gender Promotion Variances:

The top five variances between female and male officer selection rates all favor female officers and are as follows:

1. Line of the Air Force (LAF) female officer selection rates to O-5 were statistically higher than male selection rates in 2010, 2015, 2020, 2022, and for the four years combined (4-yr combined p-value < 0.00001). LAF is subdivided into six developmental categories:
 - a. LAF-A (Air Operations and Special Warfare) female officer selection rates exceeded male selection rates in all four years and were statistically higher for the four years combined (4-yr combined p-value = 0.02683).
 - i. 11M (Mobility Pilot) female officers had a four-year combined selection rate of 86.7% compared to 70.8% for 11M males (4-yr combined p-value = 0.02217).
 - b. LAF-C (Combat Support) female officer selection rates exceeded male selection rates in all four years and were statistically higher in 2010, 2020, 2022, and for the four years combined (4-yr combined p-value = 0.00002).
 - i. 21R (Logistics Readiness) female officers had a four-year combined selection rate of 93.5% compared to 70.6% for 21R males (4-yr combined p-value = 0.00146).
 - ii. 38F (Force Support) female officers had a four-year combined selection rate of 87.7% compared to 58.7% for 38F males (4-yr combined p-value = 0.00003).
 - c. LAF-F (Force Modernization) female officer selection rates exceeded male selection rates in all four years and were statistically higher in 2015 and for the four years combined (4-yr combined p-value = 0.00241).
 - i. 62E (Developmental Engineer) female officers had a four-year combined selection rate of 94.7% compared to 70.7% for 62E males (4-yr combined p-value = 0.00151).
 - d. LAF-I (Information Warfare) female officer selection rates were not statistically different than male selection rates in any of the four years or for the four years combined.
 - i. 14N (Intelligence) female officers had a four-year combined selection rate of 83.1% compared to 69.9% for 14N males (4-yr combined p-value = 0.02526).
 - e. LAF-N (Nuclear and Missile Operations) female officer selection rates were not statistically different than male selection rates in any of the four years or for the four years combined.
 - f. LAF-X (Cross-Functional Operations) was established in 2022, and 2022 female officer selection rates were not statistically different than male selection rates.

2. Line of the Air Force (LAF) female officer selection rates to O-4 were statistically higher than male selection rates in 2022 and for the four years combined (4-yr combined p-value = 0.00001).
 - a. LAF-A (Air Operations and Special Warfare) female officer selection rates were statistically higher than male selection rates in 2022 and for the four years combined (4-yr combined p-value = 0.02303).
 - b. LAF-C (Combat Support) female officer selection rates exceeded male selection rates in all four years and were statistically higher in 2022 and for the four years combined (4-yr combined p-value = 0.03995).
 - c. LAF-F (Force Modernization) female officer selection rates exceeded male selection rates in all four years and for the four years combined but none of the differences were statistically significant.
 - d. LAF-I (Information Warfare) female officer selection rates were statistically higher than male selection rates in 2022 and for the four years combined (4-yr combined p-value = 0.03960).
 - i. 14N (Intelligence) female officers had a four-year combined selection rate of 95.6% compared to 90.4% for 14N males (4-yr combined p-value = 0.02833).
 - e. LAF-N (Nuclear and Missile Operations) female officer selection rates were not statistically different than male selection rates in any of the four years or for the four years combined.
 - f. LAF-X (Cross-Functional Operations) does not apply to O-3s.
3. Judge Advocate female officer selection rates to O-6 were statistically higher than male selection rates in 2015A (1st of two boards in 2015), 2020, and for the four years combined (4-yr combined p-value = 0.00651). No statistical difference in 2010, 2015B, or 2022.
4. Dental Corps female officer selection rates to O-6 were statistically higher than male selection rates in 2020, 2022, and for the four years combined (4-yr combined p-value = 0.02538). No statistical difference in 2010 or 2015.
5. Nurse Corps female officer selection rates to O-5 were statistically higher than male selection rates in 2020, 2022, and for the four years combined (4-yr combined p-value = 0.02904). No statistical difference in 2010 or 2015.

USAF Central Selection Board Enlisted (E-7 thru E-9) Gender Promotion Variances:

The three tabs with titles starting with “(a.iii)” in the file “DACOWITS USAF Enlisted Select Rate Data ByGender.xlsx” are the supporting data for this question. The tab “(a.iii) Gender Promo Variances” gives the absolute difference in selection rates between males and females for all the AFSCs promoting to E-7 thru E-9 for the given years. There is a filterable text comment for each AFSC delineating the groups when the male selection rate is higher, the female selection rate is higher, as well as when the selection rates are equivalent or there were no eligibles for one of the gender groups. The intent of this tab is to show and categorize the gender differences across all AFSCs for the given ranks and years.

The second tab “(a.iii) Top5 SelRate Diff M>F” highlights the five AFSCs with the largest disparity (in terms of absolute difference in selection rates) between males and females for each of the desired years, regardless of the rank, for when the male selection rate for an AFSC is greater than the female selection rate. As there are five AFSCs highlighted for each of the four years, there are 20 denoted AFSCs. For all 20 of these AFSCs, there were zero females in the selected population. The largest of the absolute differences was 100%, which were the AFSCs and board cycles of 8A100 (10E9), 8A200 (10E9, 22E9), 4B0X0 (10E9), 4C0X0 (20E9), 9L000 (22E9), and 8G000 (22E9). The smallest of the absolute differences for these 20 AFSCs was 33.33% for 5J0X0 for the 15E9 board. Note that most of the AFSCs highlighted in this group of 20 were from the E-9 boards. This result is largely due to the E-9 board having the smallest eligible population of the E-7 thru E-9 boards, so with smaller groups, there is more expected variance amongst the various groups’ selection rates for the board. The expectation to this rule is there are two out of the 20 AFSCs that were not from E-9 boards and those were the 4V0X1’s on the 20E7 board with a 37.5% absolute difference in gender selection rates and the 8G000’S on the 22E8 board with a 100% absolute difference in gender selection rates. For these 20 AFSCS, the most common AFSC career groups are the 5XXXX’s (Medical) and 8XXXX’s (Special Duty Identifiers). There is only one AFSC career group not represented on this list, which are the 6XXXX’s (Acquisition) and that group is comprised of the Contracting (6C0X1) and Financial Management (6F0X1) AFSCs.

The next tab “(a.iii) Top5 SelRate Diff F>M” highlights the five AFSCs with the largest disproportion (in terms of absolute difference in selection rates) between males and females for each of the desired years, regardless of the rank, for when the female selection rate for the AFSC is greater than the male selection rate. Thus, it is the same formatting as the last tab, but now the comment condition is when the female rate is greater than the male rate. As there are five AFSCs highlighted for each of the four years, there are 20 denoted AFSCs. For all 11 out of the 20 AFSCs, there were zero males in the selected population. For 16 of the 20 highlighted AFSCs, there was one female in the selected population. The largest of the absolute differences was 100% and was for the AFSCs and board cycles of 8D000 (10E8, 15E8), 8S000 (10E8), 4V0X0 (10E9), 1C5X0 (10E9), 1S0X0 (10E9), 1A6X0 (15E9), 4H0X0 (15E9), 8C000 (15E9), 4A2X1 (15E8), 8A200 (20E9), 8B000 (20E9), 2A6X3 (20E7), 3E1X1 (20E7), 8P000 (20E7), 3E0X2 (22E7), 2T3X0 (22E9), and 2A3X0 (22E9) . The smallest of the absolute differences for these 20 AFSCs was 60.00% which was the 3N0X0 AFSC for the 22E9 board. Note that most of the AFSCs highlighted in this group of 20 are from the E-9 boards, as we saw previously with the male groups. For these 20 AFSCS, the most common AFSC career group for this table is the 8XXXX’s (Special Duty Identifiers). There are 4 AFSC career group not represented on this list, which are the 5XXX’s (Professional), 6XXX’s (Acquisition), 7XXX’s (Special Investigations), and 9XXX’S (Reporting Identifiers).

When looking across both tabs together, the most commonly occurring AFSC career group is the 8XXXX’s (Special Duty Identifiers) accounting for 12 of the 40 highlighted AFSCs, and 11 of the 12 having a 100% absolute difference in gender selection rate. There is only a single AFSC career group not represented in either of the two lists, with that being the 6XXXX’s (Acquisition). However, it is again worth noting, that a majority of the AFSCs on this list are at

the higher enlisted ranks and are a “specialty” AFSC. Therefore, due to them having smaller eligible populations, a higher variance in selection rates is more expected for those groups.

b. Identify the trends and compare promotion rates of females and males by occupational specialty/MOS/community to the degree possible. In other words, in what occupational areas do servicewomen’s promotion rates lag behind servicemen?

USAF Central Selection Board Officer (O-4 thru O-6) Gender Promotion Trends:

Comparing female and male officer selection rates across the four years included in this analysis (2010, 2015, 2020, and 2022), female selection rates are either statistically higher or not statistically different than male selection rates in all but three specialties. The three specialties in which the four-year combined female selection rate was statistically lower than corresponding four-year combined male selection rate are listed below:

1. 44M (Internist) female officers competing to O-4 had a 4-year combined selection rate of 84.6% (22 of 26) compared to 99.2% (120 of 121) for 44M males (p-value = 0.00020). In 2015 and 2022, the 44M female selection rate was statistically lower than the 44M male selection rate, and in 2010 and 2020 there was no statistical difference between the 44M female and male selection rates.
2. 63A (Acquisition Manager) female officers competing to O-6 had a 4-year combined selection rate of 26.3% (5 of 19) compared to 55.4% (72 of 130) for 63A males (p-value = 0.01786). In 2010, 2015, 2020, and 2022, there was no statistical difference between the 64P female and male selection rates.
3. 42N (Audiologist) female officers competing to O-6 had a 4-year combined selection rate of 0% (0 of 3) compared to 100% (1 of 1) for 42N males (p-value = 0.04550). In 2010, 2015, 2020, and 2022, there was no statistical difference between the 42N female and male selection rates.

Additionally, there were 14 competitive/developmental categories or specialties in which the female selection rate for one of the four years was statistically lower the corresponding male selection rate, but the four-year combined female selection rate was not statistically different than the male four-year combined selection rate. These are listed below:

1. 11B (Bomber Pilot) female officers competing to O-5 in 2015 had a selection rate of 0% (0 of 1) compared to 83.3% (30 of 36) for 11B males (p-value = 0.03584). In 2010, 2020, 2022, and for the four years combined, there was no statistical difference between the 11B female and male selection rates.
2. 11M (Mobility Pilot) female officers competing to O-4 in 2020 had a selection rate of 86.5% (32 of 37) compared to 95.3% (327 of 343) for 11M males (p-value = 0.02522), but in 2022, 11M females competing to O-4 had a statistically higher selection rate than 11M males. In 2010, 2015, and for the four years combined, there was no statistical difference between the 11M female and male selection rates.
3. 12M (Mobility Combat Systems Officer) female officers competing to O-5 in 2020 had a selection rate of 0% (0 of 1) compared to 100% (7 of 7) for 12M males (p-value = 0.00468). In 2010, 2015, 2022, and for the four years combined, there was no statistical difference between the 12M female and male selection rates.

4. 42B (Physical Therapist) female officers competing to O-5 in 2010 had a selection rate of 0% (0 of 1) compared to 100% (3 of 3) for 42B males (p-value = 0.04550). In 2015, 2020, 2022, and for the four years combined, there was no statistical difference between the 42B female and male selection rates.
5. 43P (Pharmacist) female officers competing to O-4 in 2022 had a selection rate of 66.7% (6 of 9) compared to 94.7% (18 of 19) for 43P males (p-value = 0.04744). In 2010, 2015, 2020, and for the four years combined, there was no statistical difference between the 43P female and male selection rates.
6. 43T (Biomedical Laboratory) female officers competing to O-5 in 2015 had a selection rate of 0% (0 of 2) compared to 100% (4 of 4) for 43T males (p-value = 0.01431). In 2010, 2020, 2022, and for the four years combined, there was no statistical difference between the 43T female and male selection rates.
7. 44D (Pathologist) female officers competing to O-5 in 2020 had a selection rate of 0% (0 of 1) compared to 100% (3 of 3) for 44D males (p-value = 0.04550). In 2010, 2015, 2022, and for the four years combined, there was no statistical difference between the 44D female and male selection rates.
8. 46S (Operating Room Nurse) female officers competing to O-6 in 2010 had a selection rate of 0% (0 of 2) compared to 100% (2 of 2) for 46S males (p-value = 0.04550). In 2015, 2020, 2022, and for the four years combined, there was no statistical difference between the 46S female and male selection rates.
9. 47S (Oral and Maxillofacial Surgeon) female officers competing to O-5 in 2022 had a selection rate of 0% (0 of 1) compared to 100% (5 of 5) for 47S males (p-value = 0.01431). In 2010, 2015, 2020, and for the four years combined, there was no statistical difference between the 47S female and male selection rates.
10. 48G (General Medical Officer, Flight Surgeon) female officers competing to O-4 in 2022 had a selection rate of 0% (0 of 1) compared to 100% (6 of 6) for 48G males (p-value = 0.00815). In 2010, 2015, 2020, and for the four years combined, there was no statistical difference between the 48G female and male selection rates.
11. 61D (Physicist/Nuclear Engineer) female officers competing to O-5 in 2015 had a selection rate of 0% (0 of 1) compared to 87.5% (7 of 8) for 61D males (p-value = 0.04722). In 2010, 2020, 2022, and for the four years combined, there was no statistical difference between the 61D female and male selection rates.
12. 64P (Contracting) female officers competing to O-5 in 2010 had a selection rate of 50% (2 of 4) compared to 91.3% (21 of 23) for 64P males (p-value = 0.03185). In 2015, 2020, 2022, and for the four years combined, there was no statistical difference between the 64P female and male selection rates.
13. BSC (Bio-Medical Services Corps) female officers competing to O-6 in 2020 had a selection rate of 18.2% (2 of 11) compared to 61.9% (13 of 21) for BSC males (p-value = 0.01857), but in 2022, BSC females competing to O-6 had a statistically higher selection rate than BSC males. In 2010, 2015, and for the four years combined, there was no statistical difference between the BSC female and male selection rates.
14. DC (Dental Corps) female officers competing to O-5 in 2022 had a selection rate of 75% (9 of 12) compared to 96.2% (25 of 26) for DC males (p-value = 0.04826). In 2010, 2015, 2020, and for the four years combined, there was no statistical difference between the DC female and male selection rates.

USAF Central Selection Board Enlisted (E-7 thru E-9) Gender Promotion Trends:

The four tabs titles starting with “(b)” in the file “DACOWITS USAF Enlisted Select Rate Data ByGender.xlsx” are the supporting data for this question. The tab “(b) E7-E9 Trend by Career Group” shows the number of AFSCs with a lower female selection rate for each of the one-digit AFSC career groups, given that the AFSC had at least one female member eligible. For promoting to E-7, there are 10 AFSC career groups while promoting to E-8 and E-9, there are 9 AFSC career groups. 0XXXX (Retrainees) are not present in the E-8 and E-9 data. These combinations give 28 presented AFSC career groups in this table. The 7XXXX’s (Special Investigations) promoting to E-7 is the only AFSC career group to have 100% of their AFSCs with a lower female selection rate than male selection rate for the four given years. However, the 7XXXX group is also only comprised of a single AFSC, 7S0X1 (Special Investigations). On the other side, none of the presented groups had 0% of their AFSCs with a lower female selection rate (in other words had 100% percent of their AFSCs with a higher female selection rate). When looking across the three ranks, the career group with the highest tendency of their AFSCs having a lower female selection rate than males is the 2XXXX career group of Logistics. Conversely, when combining the three ranks, the career groups with the lowest tendency of their AFSCs having a lower female selection rate than males are the 4XXXX career group of Medical and 5XXX career group of Professional.

The last three tabs titled starting with “(b)” further break out the career field trends investigating when the female selection rate is lower than the male selection for each individual AFSC. For promotion to E-7, 121 of the 194 (62.37%) AFSCs had 100% of the four years with a lower female selection rate than males. For promotion to E-8, 67 of the 151 (44.37%) AFSCs had 100% of the four years with a lower female selection rate than males. For promotion to E-9, 46 of 115 (40.00%) AFSCs had 100% of the four years with lower female selection rate than males. Therefore, while for E-7, a majority of the AFSCs had higher male selection rates than females for all four years, the percentage declines for higher ranks. Therefore, this result demonstrates the likelihood of a female promoting continues to increase as she reaches higher ranks.

On the other side, for promotion to E-7, 29 of 194 (14.95%) AFSCs had 100% of requested years with a higher female selection rate than males. For promotion to E-8, 28 of the 151 (18.54%) AFSCs had 100% of the requested years with a higher female selection rate than males. For promotion to E-9, 28 of the 115 (24.35%) AFSCs had 100% of the requested years with a higher female selection rate than males. This trend supports the previous conclusion that female likelihood for promotion increases as the board becomes more senior in the promotion-to rank.

Therefore, the first tab of “(b) E7-E9 Trend by Career Group” highlights the differences in AFSC career group that favor female promotions or favor male promotions. The highest tendency of their AFSCs having a lower female selection rate than males is the 2XXXX career group of Logistics. While the lowest tendency of their AFSCs having a lower female selection rate than males are the 4XXXX career group of Medical and 5XXX career group of Professional. While the last three tabs demonstrate the female likelihood for promotion increases as the rank the individual is competing more becomes more senior. For promotion to E-7, a majority of the AFSCs had higher male selection rates than females for all four years, but female likelihood for promotion increases as the board becomes more senior in the promotion-to rank.