



MLDC Research Areas

Definition of Diversity
Legal Implications
Outreach & Recruiting
Leadership & Training
Branching & Assignments
Promotion
Retention
Implementation & Accountability
Metrics
National Guard & Reserve

This issue paper aims to aid in the deliberations of the MLDC. It does not contain the recommendations of the MLDC.

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Demographic Profile of the Active-Duty Warrant Officer Corps September 2008 Snapshot

Abstract

In this paper, we provide a consistent demographic profile of the active-duty warrant officer corps across four of the five Services; the Air Force is not included because there are no warrant officers in that Service. We compare the warrant officer population with the broad enlisted population (ranks E-1 through E-9), and we display the data in charts and tables by gender and race/ethnicity categories. Data are reported as percentages and as raw counts to facilitate comparisons and illustrate differences in magnitude. Although the data presented here are in the form of 2008 snapshots, we also provide an appendix with yearly data starting in 2000.

During the September 2009 meeting of the MLDC, each of the Services presented a briefing with basic demographic statistics. However, because each Service gave slightly different information in a different format, it proved difficult to make comparisons across Services. Therefore, we have developed a series of issue papers (IPs) to present consistent gender and race/ethnicity profiles across all five Services, focusing on five specific groups:

- active-duty officers
- active-duty enlisted
- active-duty warrant officers
- the reserves
- the National Guard.¹

This IP looks at active-duty warrant officers, comparing them with the enlisted population (ranks E-1 through E-9) as a whole. The Air Force is not included in this IP because there are no warrant officers in

that Service. We note that, while each Service varies in its advancement requirements, most warrant officers advance through the enlisted ranks before becoming warrant officers.² Therefore, for comparison, we present data on enlisted personnel as well. This gives us information about the extent to which the more-senior, warrant officer population “looks like” the population of enlisted personnel.

Data

This IP provides demographic snapshots of the active-duty warrant officer and enlisted populations in September 2008; an appendix presents yearly snapshots from 2000 to 2008. To ensure consistency, we use a common dataset from the Defense Manpower Data Center (DMDC), which maintains data on all the Services.

To give a complete picture, we report both percentages and their underlying counts. Percentages allow the reader to make comparisons across the Services despite their differences in size. The counts show how much the Services vary in size. More importantly, the counts show which percentages are based on large numbers and which are based on small numbers—a factor with important implications for what to take away from the data.

Interpreting the Data: Care Is Required

This paper is primarily descriptive in nature, and the type of information presented limits the conclusions that can be drawn. We do not attempt to determine why differences or similarities may exist. Therefore, it would be incorrect to interpret the results presented here as evidence of the presence or lack of discrimination in any Service.

Other IPs will consider factors that may have created differences among the Services. Any variations observed in either percentages

or counts reflect the combined impact of institutional and structural differences across the Services, such as differences in

- the career-field mix and demographic distributions across career fields
- the application of combat-exclusion laws and policies over time
- accession profiles over time
- differences in average individual preferences to serve in one Service rather than another
- policies
- diversity climate.

Female Warrant Officers and Female Enlisted Personnel

Figure 1 compares the percentages of female warrant officers with those of enlisted personnel. Table 1 shows raw counts.

Points to Take Away from Figure 1

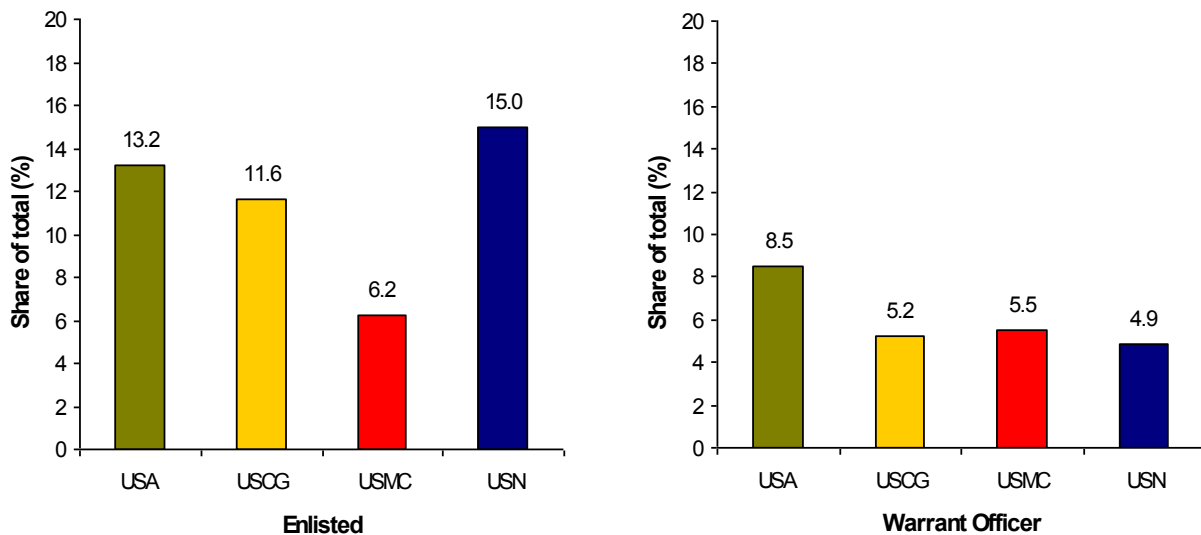
Regarding enlisted personnel,

- The Navy, with 15.0 percent, and the Marine Corps, with 6.2 percent, had the highest and lowest female shares, respectively.

Regarding warrant officers,

- There was less variation among the Services in the warrant officer corps than in the enlisted population, ranging from 4.9 percent in the Navy to 8.5 percent in the Army.
- Using percentages, we calculated ratios to determine how closely the warrant officer group mirrored the enlisted population. To calculate the ratios, we divided the percentage of female warrant officers in a given Service by the percentage of female enlisted personnel in the same Service. For example, in the Coast Guard, women made up 5.2 percent of the warrant officer community and 11.6 percent of the enlisted community. The ratio, then, is 0.45 (5.2 / 11.6 = 0.45). The remaining ratios are as follows: Army = 0.64, Marine Corps = 0.89, and Navy = 0.33. The Marine Corps stands out, with a ratio relatively close to 1.0. This ratio shows that the percentage of women among warrant officers mirrored the percentage of women in the enlisted force.

Figure 1. Percentage of Female Enlisted Personnel and Warrant Officers by Service, September 2008



NOTE: USA = U.S. Army. USCG = U.S. Coast Guard. USMC = U.S. Marine Corps. USN = U.S. Navy.

Table 1. Number of Enlisted Personnel and Warrant Officers by Service and Gender, September 2008

Service	Enlisted Personnel			Warrant Officers		
	Total	Male	Female	Total	Male	Female
USA	452,065	392,362	59,703	14,682	13,434	1,248
USCG	33,228	29,360	3,868	1,586	1,503	83
USMC	178,213	167,100	11,113	1,905	1,800	105
USN	275,296	234,102	41,194	1,653	1,572	81

Points to Take Away from Table 1

Regarding enlisted personnel,

- There was significant variation in the size of the enlisted population across the Services, ranging from 33,228 in the Coast Guard to 452,065 in the Army.

Regarding warrant officers,

- The Coast Guard, the Navy, and the Marine Corps were similar in size, with 1,586, 1,653, and 1,905 warrant officers, respectively. The Army was significantly larger, with 14,682 personnel.
- The number of women, especially in the Navy, the Coast Guard, and the Marine Corps, was very small, ranging from 81 to 105.

Race and Ethnicity

In this section, we first combine all racial/ethnic minorities³ in order to contrast them with non-Hispanic whites (white, NH) and those whose race/ethnicity are unknown. We examine each race/ethnicity category individually later in the section. Because our focus in this section is specifically on race/ethnicity, we do not further categorize by gender. That is, both women and men are included in all categories considered in this section.

We further note that in the Coast Guard (both active-duty and reserve), the *other, NH*, category is, in some cases, significantly higher than in the other Services/components. According to our DMDC data, this percentage is driven by the “more than one race” category which, along with American Indians and Alaska natives, is included under *other, NH*. We learned from the Coast Guard that this is likely due to a systematic default inaccuracy that improperly recorded the race/ethnicity of some members. The Coast Guard has taken action to contact affected members and future data should not contain this inaccuracy. For our purposes in this IP, the implications are twofold: primarily, the *other, NH*, category is likely too high, and second, the other race/ethnicity categories may be too low. Thus, as mentioned elsewhere, we urge caution in interpretation.

Figure 2 compares the percentages of minorities in the enlisted ranks with those of the warrant officer population. (Personnel who did not report a race/ethnicity are classified as “unknown” and are not included in the figure.) Table 2 shows raw counts, including the total number of enlisted personnel, and the number of personnel in each of the following categories: white, NH; minority; and “unknown.”

Figure 2. Percentage of Minority Enlisted Personnel and Warrant Officers by Service, September 2008

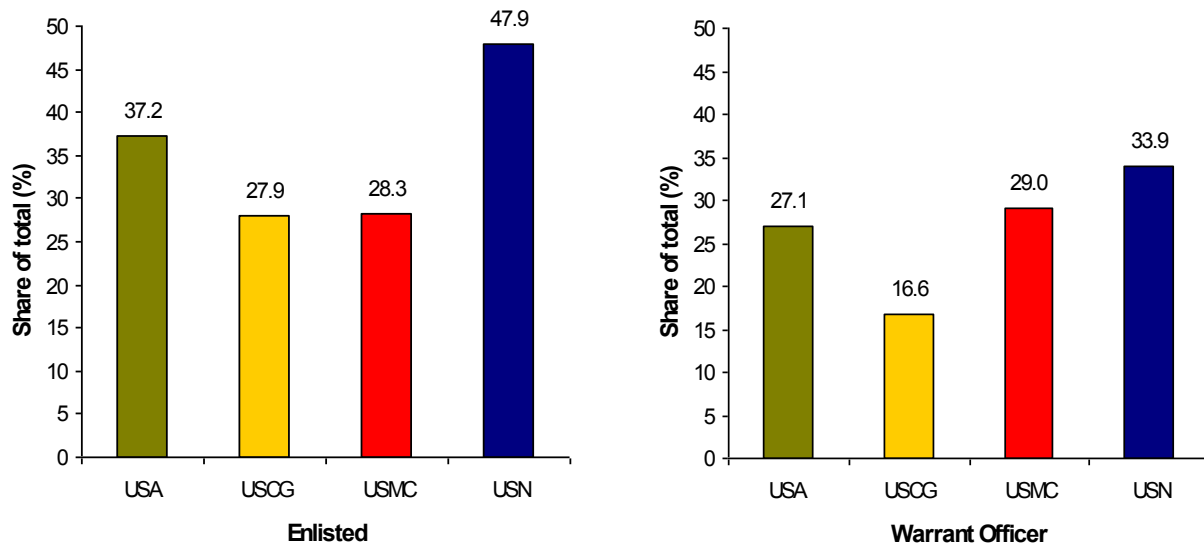


Table 2. Number of Enlisted Personnel and Warrant Officers by Service and Race/Ethnicity Grouping, September 2008

Service	Enlisted Personnel				Warrant Officers			
	Total	White, NH	Minority	Unknown	Total	White, NH	Minority	Unknown
USA	452,065	276,237	168,208	7,620	14,682	9,173	3,974	1,535
USCG	33,228	23,365	9,278	585	1,586	1,267	264	55
USMC	178,213	122,962	50,448	4,803	1,905	1,286	553	66
USN	275,296	140,702	131,995	2,599	1,653	1,054	560	39

Points to Take Away from Figure 2

Regarding “unknown,”

- The “unknown” shares for the enlisted population were as follows: Army = 1.7 percent, Coast Guard = 1.8 percent, Marine Corps = 2.7 percent, and Navy = 0.9 percent.
- The “unknown” shares for the warrant officer population were, across the board, higher than those for the enlisted population: Army = 10.5 percent, Coast Guard = 3.5 percent, Marine Corps = 3.5 percent, and Navy = 2.4 percent.

Regarding the enlisted population,

- The Navy stood out, with nearly 50-percent minority representation, followed by the Army, at 37.2 percent.
- The Coast Guard and the Marine Corps had similar shares, with 27.9- and 28.3-percent minority representation, respectively.

Regarding warrant officers,

- With between 27.1-percent and 33.9-percent minority shares, the Army, the Marine Corps, and the Navy had similar minority representation. The Coast Guard had the lowest minority representation, with 16.6 percent.

- Following the methodology described in the previous section, we used the percentages to calculate ratios that show how closely the warrant officer group mirrored the enlisted population. For minority shares, the ratios for each Service are as follows: Army = 0.73, Coast Guard = 0.59, Marine Corps = 1.02, and Navy = 0.71. With a ratio of 1.02, the two groups in the Marine Corps closely mirrored each other.

Point to Take Away from Table 2

- As noted in the discussion of Table 1, there was significant variation in the size of the enlisted and warrant officer populations across the Services.

Figure 3 shows detailed race/ethnicity shares for enlisted personnel, and Table 3 shows raw counts. The data are reported for the following race/ethnicity categories:

- non-Hispanic Asians and Pacific Islanders (API, NH)⁴
- non-Hispanic blacks (black, NH)
- Hispanics
- non-Hispanic others (other, NH), which includes American Indians, Alaska natives, and “more than one race”
- “unknown.”

Figure 3. Percentage of Enlisted Personnel by Service and Race/Ethnicity Category, September 2008

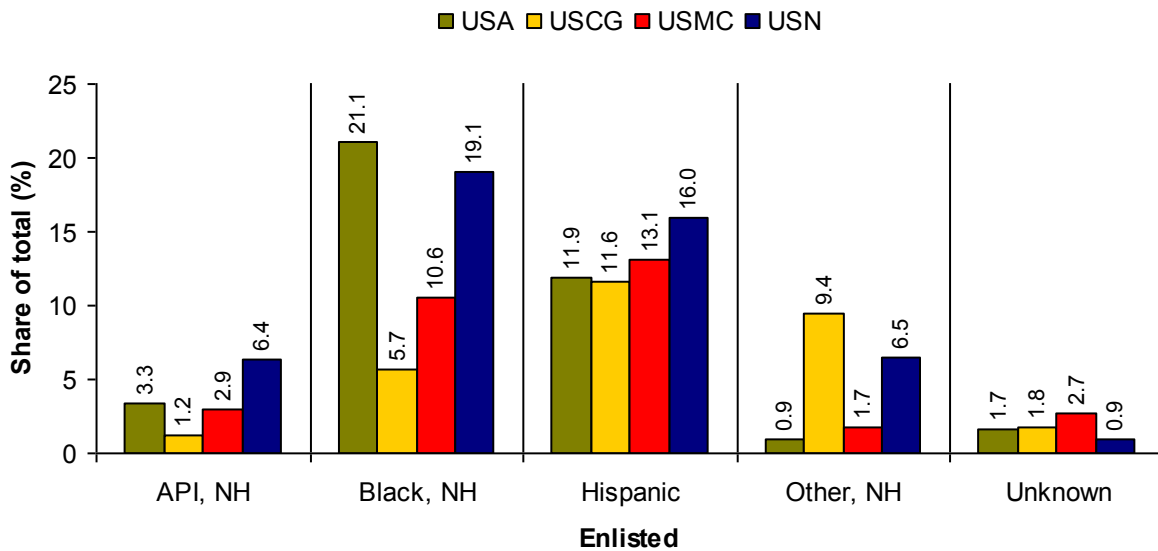


Table 3. Number of Enlisted Personnel by Service and Race/Ethnicity Category, September 2008

Service	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USA	15,089	95,301	53,571	4,247	276,237	7,620
USCG	403	1,898	3,846	3,131	23,365	585
USMC	5,187	18,827	23,358	3,076	122,962	4,803
USN	17,518	52,581	43,964	17,932	140,702	2,599

Points to Take Away from Figure 3

Regarding non-Hispanic Asians and Pacific Islanders,

- The Navy had the largest share—6.4 percent—in this category, and the Coast Guard had the smallest, with 1.2 percent. The Army and the Marine Corps had similar shares, with 3.3 percent and 2.9 percent, respectively.

Regarding non-Hispanic blacks,

- There was a wide range of representation in this category, from 5.7 percent in the Coast Guard to 21.1 percent in the Army.

Regarding Hispanics,

- Representation in this category was fairly even across the Services, ranging from 11.6 percent to 16.0 percent.

Regarding non-Hispanic others,

- There was significant variation in this category, ranging from 0.9 percent in the Army to 9.4 percent in the Coast Guard.

Regarding “unknown,”

- With between 0.9 percent and 2.7 percent, this category was relatively even across the Services.

Figure 4 shows detailed race/ethnicity share for warrant officers, and Table 4 shows raw counts.

Points to Take Away from Figure 4

Regarding non-Hispanic Asians and Pacific Islanders,

- The Navy had the highest API, NH representation, with 5.0 percent. The Army and the Marine Corps

shares were close to 2 percent each, and the Coast Guard had the lowest share, with 0.3 percent.

- To determine whether the warrant officer population mirrored the enlisted population, we calculated ratios. They are as follows: Army = 0.58, Coast Guard = 0.25, Marine Corps = 0.79, and Navy = 0.78. As noted above, ratios close to 1.0 indicate similar profiles when comparing the two groups within a Service.

Regarding non-Hispanic blacks,

- The Navy and the Army stood out with 21.4- and 17.4-percent representation, respectively. The Coast Guard had the smallest percentage in this category, 6.7 percent.

- The ratios are as follows: Army = 0.82, Coast Guard = 1.18, Marine Corps = 1.30, and Navy = 1.12. The Coast Guard, the Marine Corps, and the Navy ratios of over 1.0 indicate that there were proportionally more blacks among warrant officers than in the enlisted ranks.

Regarding Hispanics,

- With the exception of the Marine Corps, Hispanic representation across Services was relatively even, ranging from 5.5 percent to 7.2 percent. The Marine Corps stood out, with 11.1 percent.

- The ratios are as follows: Army = 0.61, Coast Guard = 0.47, Marine Corps = 0.85, and Navy = 0.39.

Regarding non-Hispanic others,

- The Coast Guard stood out in this category with 4.2-percent representation.

Figure 4. Percentage of Warrant Officers by Service and Race/Ethnicity Category, September 2008

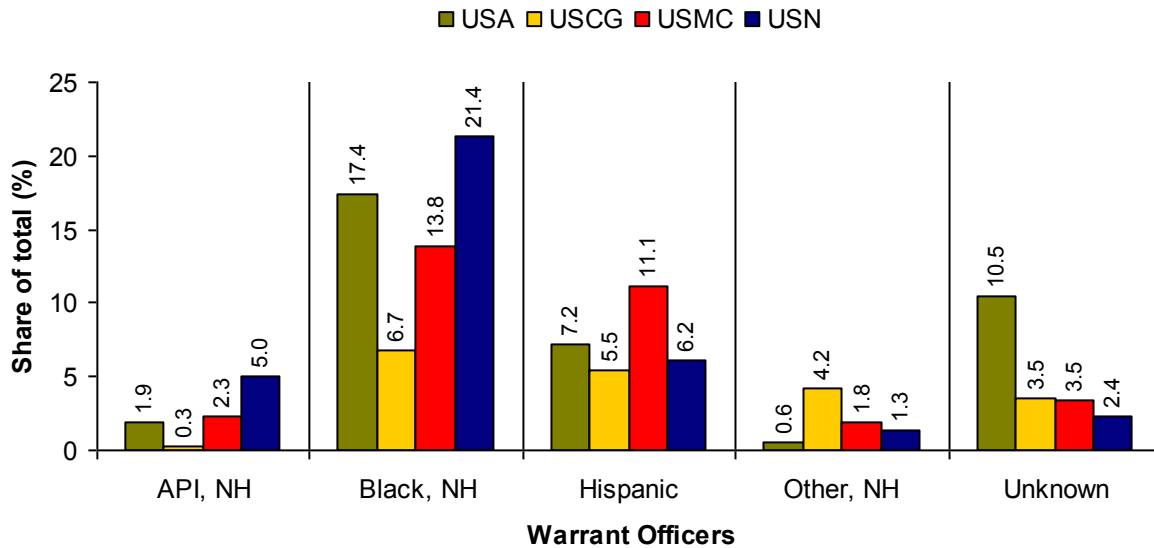


Table 4. Number of Warrant Officers by Service and Race/Ethnicity Category, September 2008

Service	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USA	277	2,551	1,060	86	9,173	1,535
USCG	4	107	87	66	1,267	55
USMC	44	263	211	35	1,286	66
USN	83	353	102	22	1,054	39

- The ratios are as follows: Army = 0.67, Coast Guard = 0.45, Marine Corps = 1.06, and Navy = 0.20. The warrant officer population of the Marine Corps, with a ratio close to 1.0, mirrored the enlisted population.

Regarding “unknown,”

- With 10.5 percent, the Army had the highest percentage in this category.
- The ratios are as follows: Army = 6.18, Coast Guard = 1.94, Marine Corps = 1.30, and Navy = 2.67. These ratios, all over 1.0, indicate that there were proportionally more “unknowns” in the warrant officer ranks than in the enlisted population.

Summary

In this IP, we present consistent demographic profiles of the active-duty warrant officer corps and enlisted population for the four Services that have warrant officers: the Army, the Coast Guard, the Marine Corps, and the Navy. The data used are from DMDC and present a snapshot from September 2008. We present both percentages and raw counts in order to facilitate comparisons and show differences in magnitude.

Our goal in this paper is to present statistics in a standard format that allows for easy comparison across the Services. Because we do not discuss factors that may influence differences or similarities perceived in the numbers, we urge caution in interpreting the findings.

Notes

¹See Military Leadership Diversity Commission (2010a) and Military Leadership Diversity Commission (2010b) for data on active-duty officers and enlisted personnel, respectively.

²It is important to note, however, that in a few cases, warrant officers do not advance through the enlisted ranks before becoming warrant officers. One notable example is the Army’s Warrant Officer Flight Training program, which recruits people with no prior service.

³Non-Hispanic Asians and Pacific Islanders, non-Hispanic blacks, Hispanics, and non-Hispanic others (American Indians, Alaska natives, and people of more than one race).

⁴Because of the nature of our data, we deviate slightly from the race/ethnicity categories presented in Military Leadership Diversity Commission (2009). In our data, Pacific Islanders are grouped with “Asians” instead of with “non-Hispanic others.”

References

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