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## Demographic Profiles of the Officer, Enlisted, and Warrant Officer Populations of the Reserve Components September 2008 Snapshot

### Abstract

In this issue paper, we present consistent demographic profiles of the officer, enlisted, and warrant officer populations that form five of the Reserve components: the Air Force Reserve, the Army Reserve, the Coast Guard Reserve, the Marine Corps Reserve, and the Navy Reserve. We focus on Selective Reserve members who are not in the Active National Guard and Reserve. We divide the paper into three sections. The first examines the officer corps, separating the flag/general officers from officers in grades O-1 through O-6. In the second section, we consider the enlisted ranks, comparing those in ranks E-1 through E-6 with those in ranks E-7 through E-9. In the third section, we look at the warrant officer population, comparing it with the entire enlisted force. In all cases, data are displayed in charts and tables by gender and race/ethnicity categories, and they 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.

**D**uring 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 racial/ethnic profiles across all Services, focusing on five specific groups:

- active-duty officers
- active-duty enlisted
- active-duty warrant officers
- Reserve
- National Guard.<sup>1</sup>

This IP looks at five of the Reserve components: the Air Force Reserve, the Army Reserve, the Coast Guard Reserve, the Marine Corps Reserve, and the Navy Reserve. We divide the IP into the following three parts:

- Part I: Reserve Officer Corps, which compares officers in ranks O-1 through O-6 with flag/general officers
- Part II: Reserve Enlisted Force, which compares enlisted personnel in ranks E-1 through E-6 with those in ranks E-7 through E-9; and
- Part III: Reserve Warrant Officer Corps, which compares the entire enlisted force with the warrant officer corps.

In each part, we discuss both gender and race/ethnicity. To get an accurate portrayal of National Guard and Reserve members that are actively participating in their National Guard and Reserve units, but not on active duty, we focus on the Selected Reserve (SelRes) not including Active Guard and Reserve members.<sup>2</sup> All the data presented in this IP includes only SelRes members not on active duty.

### Data

In the main text of this IP, we provide demographic snapshots from September 2008; the appendix contains yearly snapshots from 2000 through 2008. To ensure consistency, we use a common dataset from the Defense Manpower Data Center (DMDC).

For race/ethnicity, the data are reported in the following categories:

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

To maintain consistency with the time-series data in our appendix, we deviate slightly from the MLDC race/ethnicity categories presented in Military Leadership Diversity Commission (2009).<sup>3</sup> In our data, Pacific Islanders are grouped with “Asian” instead of with “non-Hispanic others.”

To give a complete picture, we report both percentages and their underlying counts. Percentages allow the reader to make comparisons across the components despite differences in size. The counts show how much the components 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 is primarily a descriptive paper, and two key features of the information presented limit the conclusions that can be drawn from it. First, small numbers mean that small differences in underlying counts can cause seemingly large differences in shares. This makes it difficult to determine whether differences in shares across components are meaningful. For example, Figure 1 shows that women constituted

11.1 percent of the flag/general officer corps in the Marine Corps Reserve and 0.0 percent in the Coast Guard Reserve. On the face, this difference of over 11 percentage points seems very large. However, if there had been just one fewer female flag/general officer in the Marine Corps Reserve, the female share in that component would have fallen to 0.0 percent, erasing the difference between the two components.<sup>4</sup>

Second, this paper includes no information about why differences across components may exist. Thus, it would be inappropriate to interpret differences in the profiles presented here as evidence of the presence or absence of discrimination in any of the Reserve components. Rather, differences in both percentages and counts reflect the combined impact of institutional and structural differences across the components, such as differences in

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

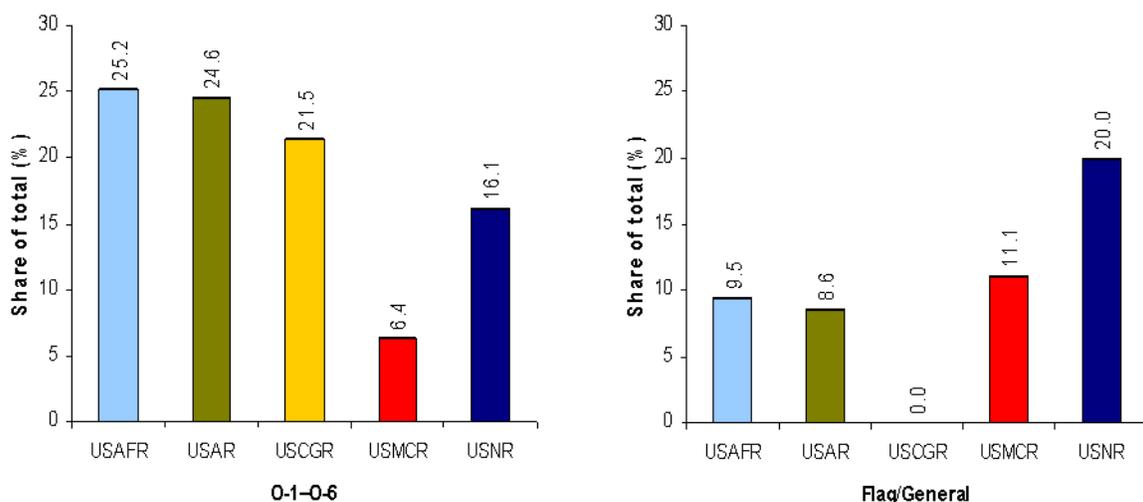
Other IPs will address several of these topics.

**Part I: Reserve Officer Corps**

**Gender**

Figure 1 presents, for the Reserve components, the percentages of female officers in grades O-1 through O-6 and the percentage of female flag/general officers. Table 1 shows the raw counts.

**Figure 1. Percentage of Female Officers, by Component and Rank, September 2008**



**Points to Take Away from Figure 1**

- Regarding O-1 through O-6 female shares,
  - With between 21.5 percent and 25.2 percent, the Coast Guard Reserve, the Army Reserve, and the Air Force Reserve had fairly similar levels of female representation.
  - The Navy Reserve followed not too far behind with just over 16-percent female representation, and the Marine Corps Reserve had 6.4-percent female representation.
- Regarding flag/general officer female shares,
  - For three of the components, the female share of flag/general officers was smaller than the female share of other officers. In the case of the Marine Corps Reserve and the Navy Reserve, the female share of flag/general officers was larger than the female share of other officers. However, because these percentages are based on very small numbers, any change in count would have radically affected the share. For example, in the case of the Marine Corps Reserve, there were nine flag/general officers, and only one of them was female. If there had been two female officers and if the flag/general population had remained the same, the share would have jumped to 22.2 percent, and if there had been no female officers, the share would have dropped to 0.0 percent. That is, adding or taking away just one person would have significantly affected the overall share.
  - We calculated ratios to determine the extent to which the lower and upper ranks, within a given component, mirror each other in terms of gender makeup. For example, in the Army Reserve, the share of women in the O-1 through O-6 ranks was 24.6 percent, while the female share in the flag/general ranks was only 8.6 percent, yielding a ratio of 0.35 ( $8.6/24.6 = 0.35$ ). The ratios for the other components were as follows: Air Force Reserve = 0.38, Coast Guard Reserve = 0.00, Marine Corps Reserve = 1.73, and Navy Reserve = 1.24. Ratios close to 1.0 indicate that the two ranks in a given component closely resembled each other in terms of gender representation.

**Points to Take Away from Table 1**

- There was a large range in the total number of officers in the O-1 through O-6 ranks, from 33,068 in the Army Reserve to 1,206 in the Coast Guard Reserve. The total number of officers in the Coast Guard Reserve and Marine Corps Reserve was much smaller than in the other components.

- The total number of flag/general officers was very small in all components, especially in the Coast Guard Reserve and the Marine Corps Reserve.<sup>5</sup> Therefore, as previously noted, any change in the numbers could have substantially changed the female share. For example, adding one female flag/general officer to the Coast Guard Reserve while holding the total number of flag/general officers constant would have increased the female share from 0 percent to 25 percent.

**Race and Ethnicity**

In this section, we first combine all race/ethnicity categories<sup>6</sup> into a single group in order to contrast that group with non-Hispanic whites (white, NH) and those whose race/ethnicity are unknown. We call this combined group “minority.” Later, we examine each race/ethnicity category individually. Because our focus is specifically on race/ethnicity in this section, we do not further categorize by gender. That is, both women and men are included in the categories used in this section.

We further note that, in the Coast Guard (both active duty and Reserve), the number of servicemembers in the other, NH category was, 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; secondarily, the other race/ethnicity categories may be too low. Thus, as mentioned elsewhere, we urge caution in interpretation.

Figure 2 presents, by race/ethnicity category, the percentages of officers in grades O-1 through O-6 and the percentages of flag/general officers. Table 2 shows the raw counts.

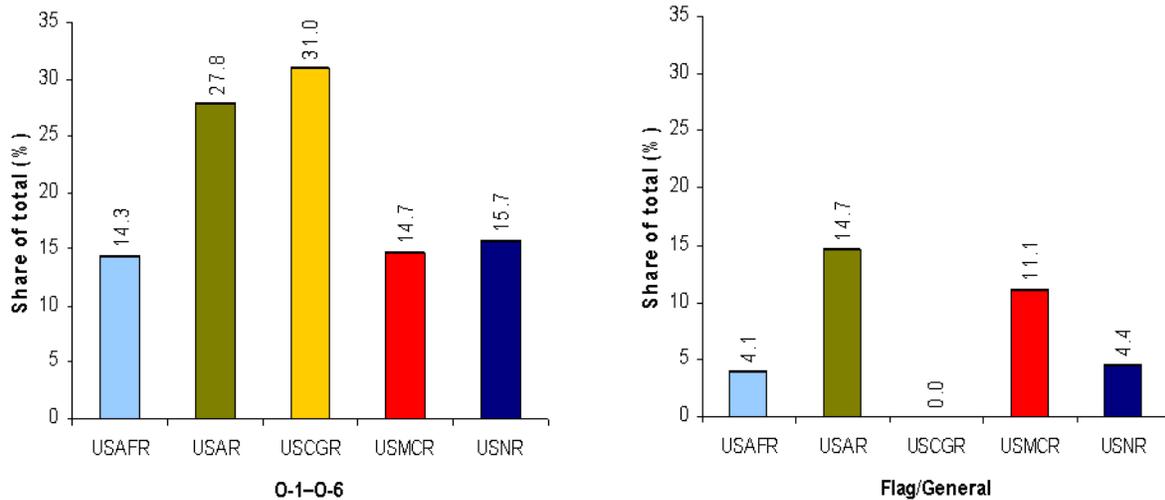
**Table 1. Number of Officers, by Component, Gender, and Rank, September 2008**

Component	O-1–O-6			Flag/General		
	Total	Male	Female	Total	Male	Female
USAFR	15,094	11,289	3,805	74	67	7
USAR	33,068	24,922	8,146	116	106	10
USCGR	1,206	947	259	4	4	0
USMCR	3,149	2,948	201	9	8	1
USNR	14,735	12,366	2,369	45	36	9

**Points to Take Away from Figure 2**

- Regarding “unknown,”
  - Officers who did not report a race/ethnicity are categorized as “unknown” and are not shown in this figure. The unknown shares for O-1 through O-6 officers were as follows: Air Force Reserve = 2.9 percent, Army Reserve = 2.1 percent, Coast Guard Reserve = 2.5 percent, Marine Corps Reserve = 5.1 percent, and Navy Reserve = 8.3 percent.
  - Flag/general officer shares of unknown race/ethnicity were as follows: Air Force Reserve = 1.4 percent, Army Reserve = 1.7 percent, Coast Guard Reserve = 0.0 percent, Marine Corps Reserve = 0.0 percent, and Navy Reserve = 11.1 percent. The Navy Reserve stands out, with 45 total flag/general officers and five categorized as unknown (see Table 2).
- Regarding O-1 through O-6 minority shares,
  - The Coast Guard Reserve and the Army Reserve had the highest minority shares, with 31.0 and 27.8 percent, respectively. With 15.7-, 14.7-, and 14.3-percent shares, the Navy Reserve, the Marine Corps Reserve, and the Air Force Reserve, respectively, had similar minority representation.
- Regarding flag/general officer minority shares,
  - As noted in the earlier section on gender, the number of flag/general officers was very small. Therefore, small changes in raw numbers would have dramatically affected the shares. Consider the case of the Coast Guard Reserve, which had only four flag/general officers, all of whom were white, NH. If just one of the four had been a minority, the minority share would have jumped from 0 percent to 25 percent.
  - Minority representation was highest in the Army Reserve (14.7 percent). The Marine Corps Reserve share was 11.1 percent, and the Navy Reserve and the Air Force Reserve had 4.4- and 4.1-percent shares, respectively.
  - For minority shares, the ratios of flag/general to other officers were as follows: Air Force Reserve = 0.29, Army Reserve = 0.53, Coast Guard Reserve = 0.00, Marine Corps Reserve = 0.76, and Navy Reserve = 0.28. With no ratio approaching 1.0, we note that, in all components, there were proportionally fewer minority flag/general officers than other officers.

**Figure 2. Percentage of Minority Officers, by Component and Rank, September 2008**



**Table 2. Number of Officers, by Component, Race/Ethnicity Category, and Rank, September 2008**

Component	O-1-O-6				Flag/General			
	Total	White, NH	Minority	Unknown	Total	White, NH	Minority	Unknown
USAFR	15,094	12,493	2,165	436	74	70	3	1
USAR	33,068	23,185	9,188	695	116	97	17	2
USCGR	1,206	802	374	30	4	4	0	0
USMCR	3,149	2,526	463	160	9	8	1	0
USNR	14,735	11,194	2,315	1,226	45	38	2	5

**Point to Take Away from Table 2**

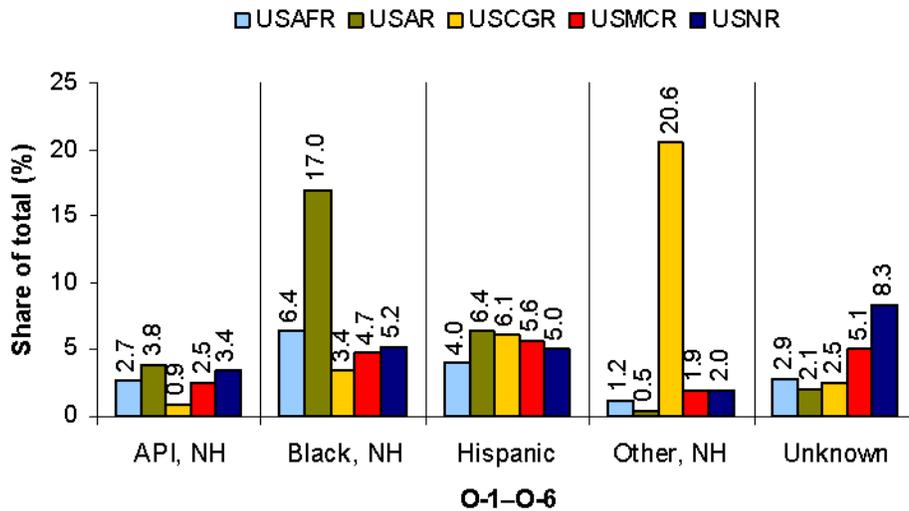
- As pointed out in our discussion of the female counts, the number of minority flag/general officers was very small, and, as can be seen in Table 4, the numbers became even smaller when further broken down into specific race/ethnicity categories.

Figure 3 presents detailed race/ethnicity shares of officers in ranks O-1 through O-6. Table 3 shows the raw counts.

**Points to Take Away from Figure 3**

- Regarding non-Hispanic Asians and Pacific Islanders (API, NH),
  - With between 0.9 percent and 3.8 percent, representation in this category was fairly even across components. The Army Reserve had the largest share, and the Coast Guard Reserve had the smallest.
- Regarding non-Hispanic blacks (black, NH),
  - The Army Reserve, with 17.0-percent representation in this category, stands out. The other components had between 3.4 percent and 6.4 percent.
- Regarding Hispanics,
  - With between 4.0 percent and 6.4 percent, this category was the most even across components. The Army Reserve had the highest Hispanic representation, and the Air Force Reserve had the lowest. The Coast Guard Reserve, the Marine Corps Reserve, and the Navy Reserve had 6.1-, 5.6-, and 5.0-percent representation, respectively.
- Regarding non-Hispanic others (other, NH),
  - The Coast Guard Reserve, with 20.6-percent representation in this category, clearly stands out.
  - The other components reported between 0.5 percent and 2.0 percent. Coast Guard Reserve aside, the Navy Reserve had the highest representation in this category, and the Army Reserve had the lowest. The Marine Corps Reserve and the Air Force Reserve had 1.9 percent and 1.2 percent, respectively.
- Regarding “unknown,”
  - The number of officers reporting in the “unknown” category was highest in the Navy Reserve (8.3 percent). The Marine Corps Reserve followed, with 5.1 percent. The Air Force Reserve, the Coast Guard Reserve, and the Army Reserve showed relatively even representation across components, with 2.9-, 2.5-, and 2.1-percent shares, respectively.

**Figure 3. Percentage of Officers in Ranks O-1 Through O-6, by Race/Ethnicity Category, September 2008**



**Table 3. Number of Officers in Ranks O-1 Through O-6, by Component and Race/Ethnicity Category, September 2008**

Component	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USAFR	411	966	608	180	12,493	436
USAR	1,271	5,629	2,125	163	23,185	695
USCGR	11	41	74	248	802	30
USMCR	79	148	177	59	2,526	160
USNR	505	773	744	293	11,194	1,226

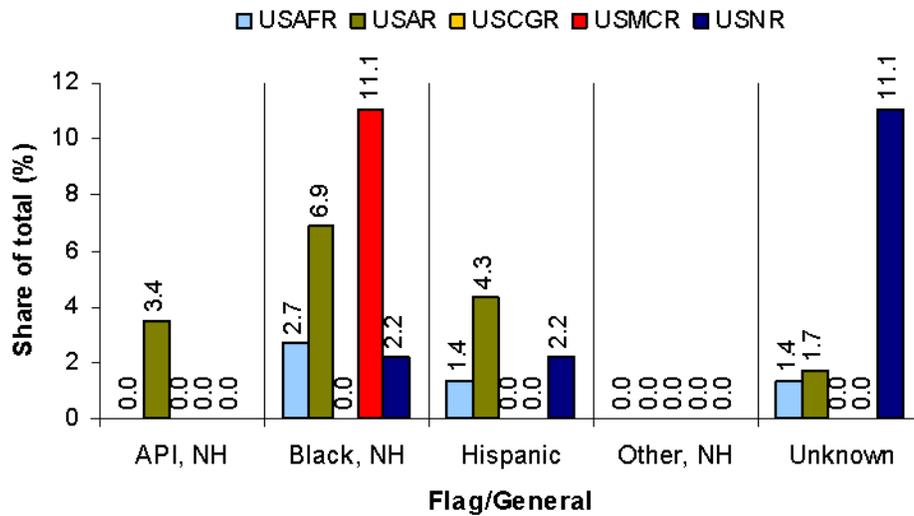
Figure 4 presents detailed racial/ethnic shares of flag/general officers, and Table 4 shows the raw counts. We reiterate that, as in the case of female shares of flag/general officers, the race/ethnicity categories should be interpreted with caution because the numbers are so small. This is especially true when looking at the percentages in Figure 4. A small change in raw counts could have dramatically affected the percentages.

**Points to Take Away from Figure 4**

- Regarding non-Hispanic Asians and Pacific Islanders (API, NH),
  - With 3.4 percent, the Army Reserve was the only component to report representation in this category.
  - The ratio of flag/general officers to O-1 through O-6 officers in the Army Reserve was 0.89. This ratio, which is relatively close to 1.0, indicates that the flag/general officer population mirrored the O-1 through O-6 officer population.

- The ratios for all other components were 0.00 because there was no representation in this category in the flag/officer corps.
- Regarding non-Hispanic blacks (black, NH),
  - With 11.1-percent representation, the Marine Corps Reserve had the highest representation in this category. We do note, however, that this percentage is based on very small numbers. There were only nine flag/general officers in the Marine Corps Reserve; one of them was black, NH, and the remaining eight were white, NH. Fundamentally, then, only one officer underlay this seemingly large share. If there had been two black flag/general officers and the total number had remained the same, the share would have jumped to 22.2 percent; conversely, if there had been no black flag/general officers and the total had remained the same, the share would have dropped to 0.0 percent.

**Figure 4. Percentage of Flag/General Officers, by Race/Ethnicity Category, September 2008**



**Table 4. Number of Flag/General Officers, by Component and Race/Ethnicity Category, September 2008**

Component	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USAFR	0	2	1	0	70	1
USAR	4	8	5	0	97	2
USCGR	0	0	0	0	4	0
USMCR	0	1	0	0	8	0
USNR	0	1	1	0	38	5

- The remaining components had 6.9-, 2.7-, 2.2-, and 0.0-percent shares. Of these, the Army Reserve had the highest representation, and the Coast Guard Reserve had the lowest. In the case of the Coast Guard Reserve, there were only four flag/general officers, and all of them reported as white, NH.
- The ratios of flag/general officers to O-1 through O-6 officers were as follows: Air Force Reserve = 0.42, Army Reserve = 0.41, Coast Guard Reserve = 0.00, Marine Corps Reserve = 2.36, and Navy Reserve = 0.42. The Marine Corps Reserve stands out with a ratio well over 1.0, indicating that there was proportionally higher black representation in the flag/general ranks than in the O-1 through O-6 ranks. However, as previously noted, the number of flag/general officers in the Marine Corps Reserve was very small, and any change would have radically affected this ratio.
- Regarding non-Hispanic others (other, NH),
  - None of the components reported any representation in this category; as a result, the ratios were all 0.00.
- Regarding “unknown,”
  - With 11.1 percent, the Navy Reserve had the highest representation in this category. Although the total population of flag/general officers in the Navy Reserve was larger than that of the Coast Guard Reserve or Marine Corps Reserve, this large share was based only on five flag/general officers (out of a total population of 45).
  - The Air Force Reserve had a 1.4-percent share, and the Army Reserve had a 1.7-percent share in this category.
  - The ratios of flag/general officers to O-1 through O-6 officers were as follows: Air Force Reserve = 0.48, Army Reserve = 0.81, Coast Guard Reserve = 0.00, Marine Corps Reserve = 0.00, and Navy Reserve = 1.34.

- Regarding Hispanics,
  - Two components, the Coast Guard Reserve and the Marine Corps Reserve, reported no representation in this category. The Army Reserve, the Navy Reserve, and the Air Force Reserve had 4.3-, 2.2-, and 1.4-percent shares, respectively.
  - The ratios of flag/general officers to O-1 through O-6 officers were as follows: Air Force Reserve = 0.35, Army Reserve = 0.67, Coast Guard Reserve = 0.00, Marine Corps Reserve = 0.00, and Navy Reserve = 0.44. Although none of the flag/general officer populations mirrored the other officer populations in their respective components, the two Army Reserve populations showed the most similarity in terms of Hispanic representation.

**Point to Take Away from Table 4**

- As previously mentioned, the total number of flag/general officers was very small, and, when these numbers are broken out by race/ethnicity category, they become even smaller. In the case of the Coast Guard Reserve, for example, there were only four flag/general officers, and none of them fell into a minority category. Thus, it is important to interpret the shares presented in Figure 4 with caution.

**Part II: Reserve Enlisted Force**

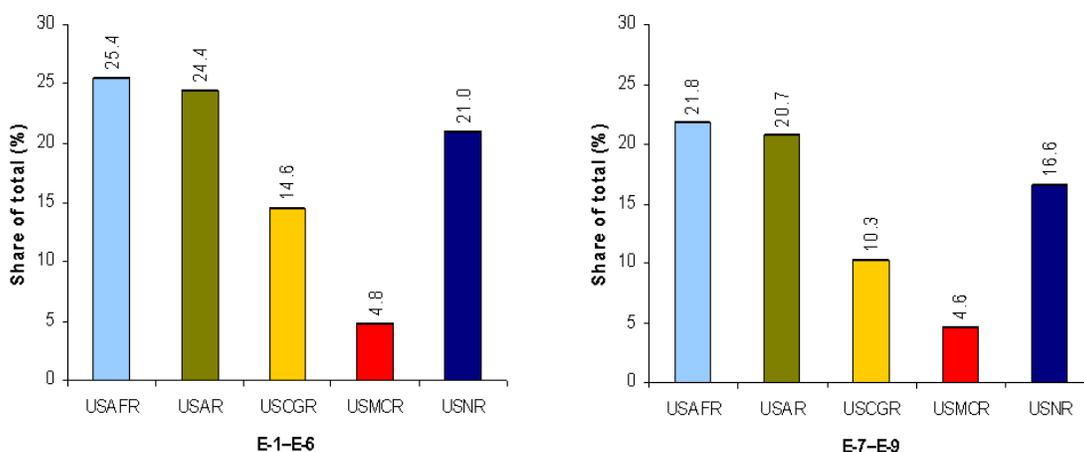
**Gender**

Figure 5 presents, for all Reserve components, the percentages of female enlisted personnel in ranks E-1 through E-6 and those in ranks E-7 through E-9. Table 5 shows the raw counts.

**Points to Take Away from Figure 5**

- Regarding the E-1 through E-6 female shares,
  - Women represented about a quarter of the E-1 through E-6 population in the Air Force Reserve and the Army Reserve. They made up slightly more than one-fifth of the population in the Navy Reserve. In the Coast Guard Reserve and the Marine Corps Reserve, female shares were 14.6 and 4.8 percent, respectively.

**Figure 5. Percentage of Female Enlisted Personnel, by Component and Rank, September 2008**



**Table 5. Number of Enlisted Personnel, by Component, Gender, and Rank, September 2008**

Component	E-1-E-6			E-7-E-9		
	Total	Male	Female	Total	Male	Female
USAFR	38,535	28,734	9,801	13,860	10,839	3,021
USAR	136,534	103,224	33,310	24,469	19,409	5,060
USCGR	5,614	4,793	821	976	875	101
USMCR	32,206	30,657	1,549	1,840	1,756	84
USNR	47,994	37,922	10,072	5,228	4,358	870

- Regarding the E-7 through E-9 female shares,
  - Female representation was lower across the board in the senior ranks of the enlisted population when compared to the junior ranks. The Air Force Reserve, with 21.8 percent, had the largest share, and the Marine Corps Reserve, with 4.6 percent, had the smallest. The Army Reserve, the Navy Reserve, and the Coast Guard Reserve had 20.7-, 16.6-, and 10.3-percent shares, respectively.
  - There were component-specific differences in the extent to which the gender profiles of the E-7 through E-9 ranks mirrored those of the lower ranks.<sup>8</sup> This can be seen by calculating the ratio of the female share of senior personnel to the female share of the E-1 through E-6 ranks. For example, in the case of the Marine Corps Reserve, women made up 4.6 percent of the senior ranks and 4.8 percent of the lower ranks. The resulting ratio was 0.96 ( $4.6/4.8 = 0.96$ ). Ratios close to 1.0 indicate that the two populations in a component closely mirrored each other in terms of gender makeup. In the case of the Marine Corps Reserve, we see that the two populations were similar. The ratios for the remaining components were as follows: Air Force Reserve = 0.86, Army Reserve = 0.85, Coast Guard Reserve = 0.71, and Navy Reserve = 0.79.

**Points to Take Away from Table 5**

- Regarding the E-1 through E-6 ranks,
  - There was significant variation in the size of the E-1 through E-6 populations across the components. The largest component—the Army Reserve—had 136,534 enlisted personnel, and the smallest—the Coast Guard Reserve—had only 5,614.
  - The Air Force Reserve and the Marine Corps Reserve were similar in size, and the Navy Reserve was slightly larger.
- Regarding the E-7 through E-9 ranks,
  - As in the lower ranks, there was considerable difference in the size across components, ranging from 976 senior enlisted personnel in the Coast Guard Reserve to 24,469 in the Army Reserve.
  - The senior enlisted population of the Air Force Reserve was larger than the equivalent populations of the Navy Reserve and the Marine Corps Reserve.

**Race and Ethnicity**

As noted in the earlier officer section, in the portions of this paper that pertain to race/ethnicity, we first combine all race/ethnicity categories<sup>9</sup> into a single group in order to contrast that group with non-Hispanic whites (white, NH) and those whose race/ethnicity are unknown. We call this combined group “minority.” Later, we examine each race/ethnicity category individually. Because our focus is specifically on race/ethnicity in this section, we do not further categorize by gender. That is, both women and men are included in the categories used in this section.

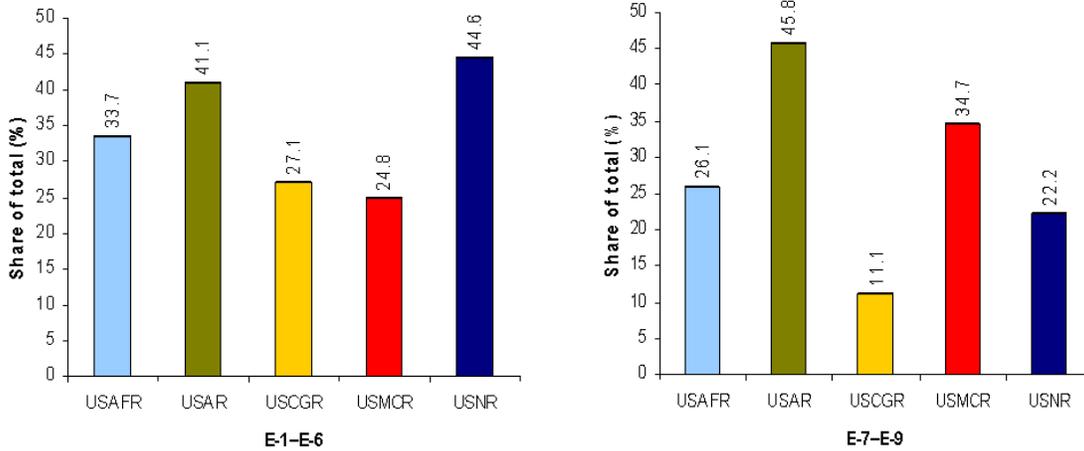
Furthermore, as previously discussed, the number of servicemembers in the other, NH category was, in some cases, significantly higher than in the other Services/components. According to our DMDC data, this percentage is driven by the “more than one race” category which, along with American Indians and 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; secondarily, the other race/ethnicity categories may be too low. Thus, as mentioned elsewhere, we urge caution in interpretation.

Figure 6 presents the percentages of minority enlisted personnel in grades E-1 through E-6 and the percentages of those in ranks E-7 through E-9. Table 6 shows the raw counts.

**Points to Take Away from Figure 6**

- Regarding the E-1 through E-6 minority shares,
  - Both the Navy Reserve and the Army Reserve had minority shares of greater than 40 percent. The Air Force Reserve minority share was 33.7 percent. And, with about a quarter of their populations reporting in a minority category, the Coast Guard Reserve and the Marine Corps Reserve, also had significant minority representation.

**Figure 6. Percentage of Minority Enlisted Personnel, by Component and Rank, September 2008**



- Regarding the E-7 through E-9 minority shares,
  - There was more variation in minority shares in the senior ranks than in the E-1 through E-6 ranks. The Army Reserve, with 45.8 percent, had the largest share, and the Coast Guard Reserve, with 11.1 percent, had the smallest. The Marine Corps Reserve, the Air Force Reserve, and the Navy Reserve had 34.7-, 26.1-, and 22.2-percent shares, respectively.
  - As noted in the earlier section on gender, we calculated ratios to determine how closely the senior ranks mirrored the lower ranks. For minority shares, the ratios of E-7 through E-9 personnel to other personnel were as follows: Air Force Reserve = 0.77, Army Reserve = 1.11, Coast Guard Reserve = 0.41, Marine Corps Reserve = 1.40, and Navy Reserve = 0.50. The Marine Corps Reserve and the Army Reserve stand out with ratios over 1.0, indicating that there was proportionally more minority representation in the senior ranks of each of these components than in the lower ranks.

**Point to Take Away from Table 6**

- As noted in the discussion of Table 5, there was significant variation in the size of the enlisted force when comparing the components.

Figure 7 presents detailed racial/ethnic shares of enlisted personnel in ranks E-1 through E-6. Table 7 shows the raw counts.

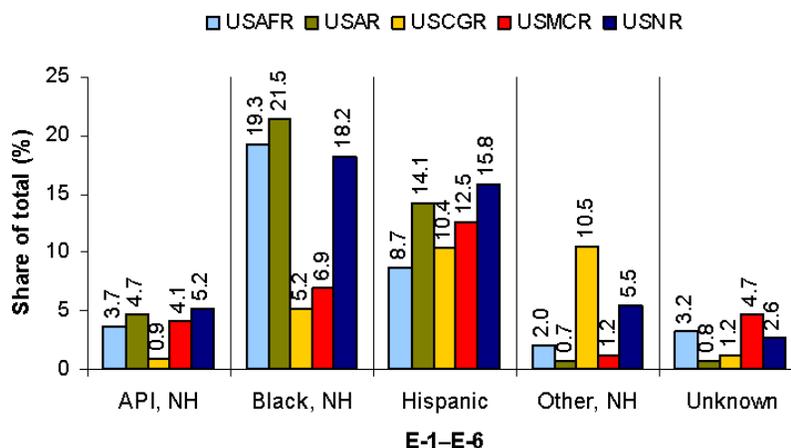
**Points to Take Away from Figure 7**

- Regarding non-Hispanic Asians and Pacific Islanders (API, NH),
  - With fairly even representation, the Navy Reserve, the Army Reserve, the Marine Corps Reserve, and the Air Force Reserve ranged from 3.7 percent to 5.2 percent in this category.
  - The Coast Guard Reserve had a 0.9-percent share.
- Regarding non-Hispanic blacks (black, NH),
  - There was a wide range of representation in this category, from 5.2 percent in the Coast Guard Reserve to 21.5 percent in the Army Reserve.
  - The Air Force Reserve, with 19.3 percent, and the Navy Reserve, with 18.2 percent, followed closely behind the Army Reserve; the Marine Corps Reserve had a 6.9-percent share.

**Table 6. Number of Enlisted Personnel, by Component, Race/Ethnicity Category, and Rank, September 2008**

Component	E-1-E-6				E-7-E-9			
	Total	White, NH	Minority	Unknown	Total	White, NH	Minority	Unknown
USAFR	38,535	24,318	12,988	1,229	13,860	9,901	3,612	347
USAR	136,534	79,434	56,075	1,025	24,469	12,900	11,197	372
USCGR	5,614	4,024	1,520	70	976	845	108	23
USMCR	32,206	22,693	7,989	1,524	1,840	1,106	639	95
USNR	47,994	25,328	21,420	1,246	5,228	3,936	1,159	133

Figure 7. Percentage of Enlisted Personnel in Ranks E-1 Through E-6, by Race/Ethnicity Category, September 2008



- Regarding Hispanics,
  - With between 12.5 percent and 15.8 percent representation in this category, the Marine Corps Reserve, the Army Reserve, and the Navy Reserve showed similar Hispanic shares.
  - The Air Force Reserve and the Coast Guard Reserve had slightly smaller shares, with 8.7 percent and 10.4 percent, respectively.
- Regarding non-Hispanic others (other, NH),
  - As in the case of the O-1 through O-6 personnel, previously discussed, the Coast Guard Reserve stands out in this category, with a 10.5-percent share.<sup>10</sup>
  - The other, NH shares in the remaining components ranged between 0.7 percent and 5.5 percent; the Navy Reserve has the largest share, and the Army Reserve had the smallest.
- Regarding “unknown,”
  - With shares ranging between 0.8 and 2.6 percent, the Army Reserve, the Coast Guard Reserve, and the Navy Reserve had relatively even representation in this category.
  - The Air Force Reserve, with 3.2 percent, and the Marine Corps Reserve, with 4.7 percent, had slightly larger shares.

Figure 8 presents detailed racial/ethnic shares of enlisted personnel in ranks E-7 through E-9, and Table 8 shows the raw counts.

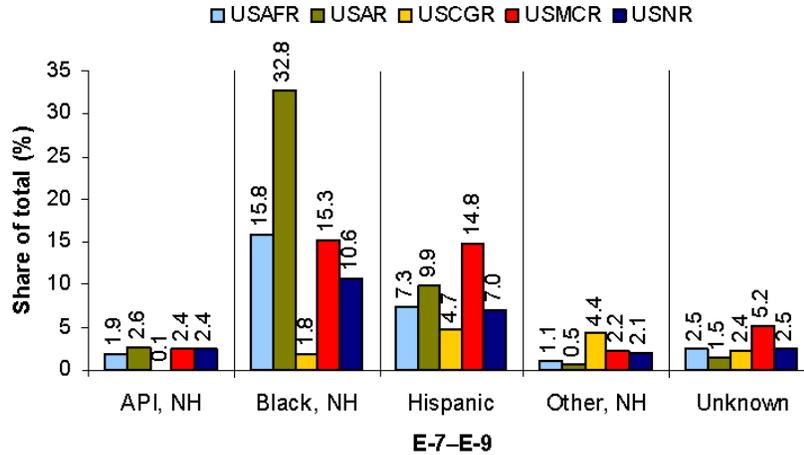
**Points to Take Away from Figure 8**

- Regarding non-Hispanic Asians and Pacific Islanders (API, NH),
  - Excluding the Coast Guard Reserve, with 0.1 percent, representation across components was relatively even, ranging from 1.9 percent to 2.4 percent.
  - As previously discussed, we calculated ratios to determine how closely the senior ranks of a given component mirrored the lower ranks (in that same component) in terms of demographic makeup. The ratios in the case of this race/ethnicity category were as follows: Air Force Reserve = 0.51, Army Reserve = 0.55, Coast Guard Reserve = 0.11, Marine Corps Reserve = 0.59, and Navy Reserve = 0.46. Ratios close to 1.0 indicate that the upper ranks in a given component mirrored the lower ranks in that same component in terms of demographic makeup.
- Regarding non-Hispanic blacks (black, NH),
  - With percentages ranging from 1.8 percent to 32.8 percent, there was significant variation in this category. The Army Reserve had the largest share, and the Coast Guard Reserve had the smallest. With 15.8- and 15.3-percent shares, the Air Force Reserve and the Marine Corps Reserve were similar. The Navy Reserve fell slightly behind them, with a 10.6-percent share.

Table 7. Number of Enlisted Personnel in Ranks E-1 Through E-6, by Component and Race/Ethnicity Category, September 2008

Component	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USAFR	1,431	7,431	3,356	770	24,318	1,229
USAR	6,405	29,351	19,318	1,001	79,434	1,025
USCGR	51	293	584	592	4,024	70
USMCR	1,336	2,219	4,041	393	22,693	1,524
USNR	2,483	8,733	7,585	2,619	25,328	1,246

**Figure 8. Percentage of Enlisted Personnel in Ranks E-7 Through E-9, by Race/Ethnicity Category, September 2008**



- The ratios were as follows: Air Force Reserve = 0.82, Army Reserve = 1.53, Coast Guard Reserve = 0.35, Marine Corps Reserve = 2.22, and Navy Reserve = 0.58. With ratios over 1.0, both the Marine Corps Reserve and the Army Reserve stand out.
- Regarding Hispanics,
  - With 14.8 percent and 4.7 percent, the Marine Corps Reserve and the Coast Guard Reserve had the largest and smallest shares in this category, respectively. The remaining components had shares ranging from 7.0 percent to 9.9 percent.
  - The ratios of upper to lower ranks were as follows: Air Force Reserve = 0.84, Army Reserve = 0.70, Coast Guard Reserve = 0.45, Marine Corps Reserve = 1.18, and Navy Reserve = 0.44. The ratio for the Marine Corps Reserve indicates that there were proportionally more Hispanics in the senior ranks of the Marine Corps Reserve than there in the lower ranks of that component.
- Regarding non-Hispanic others (other, NH),
  - The Coast Guard Reserve had the highest representation in this category, with 4.4 percent. The remaining components ranged from 0.5 percent to 2.2 percent.
  - The ratios in this category were as follows: Air Force Reserve = 0.55, Army Reserve = 0.71, Coast Guard Reserve = 0.42, Marine Corps Reserve = 1.83, and Navy Reserve = 0.38.
- Regarding “unknown,”
  - With the exception of the Marine Corps Reserve, representation was fairly even across components, with shares ranging between 1.5 percent and 2.5 percent. The Marine Corps Reserve share was 5.2 percent.
  - The ratios of senior enlisted to the lower ranks in this category were as follows: Air Force Reserve = 0.78, Army Reserve = 1.88, Coast Guard Reserve = 2.00, Marine Corps Reserve = 1.11, and Navy Reserve = 0.96.

**Table 8. Number of Enlisted Personnel in Ranks E-7 Through E-9, by Component and Race/Ethnicity Category, September 2008**

Component	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USAFR	259	2,190	1,016	147	9,901	347
USAR	640	8,014	2,415	128	12,900	372
USCGR	1	18	46	43	845	23
USMCR	45	281	272	41	1,106	95
USNR	126	555	366	112	3,936	133

**Part III: Reserve Warrant Officer Corps**

In this section, we compare warrant officers with the overall enlisted population because, for the most part, warrant officers must advance through the enlisted ranks before becoming warrant officers. This comparison gives us information on the extent to which the warrant officer population, which is more senior, “looks like” the enlisted population.

The Air Force Reserve is not included in this section because there are no warrant officers in that component.

**Gender**

Figure 9 presents detailed the shares of female enlisted personnel and female warrant officers by service. Table 9 shows the raw counts used to derive these tables.

**Points to Take Away from Figure 9**

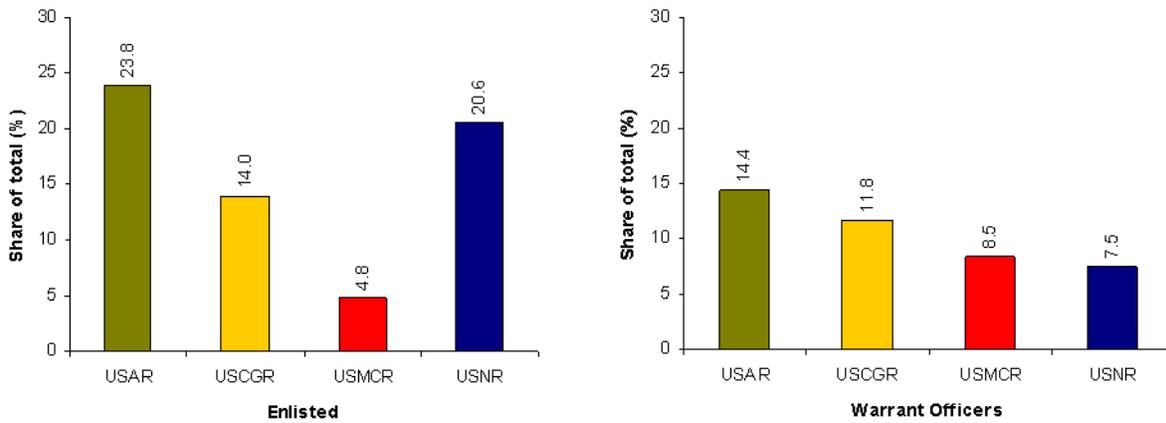
- Regarding enlisted personnel,
  - In both the Army Reserve and the Navy Reserve, women made up more than one-fifth of the enlisted population. The Coast Guard Reserve had a 14.0-percent share, and women formed only 4.8 percent of the enlisted population in the Marine Corps Reserve.

- Regarding warrant officers,
  - In terms of female representation in the warrant officer corps, there was far less variation across components than there was in the enlisted force. The Army Reserve had the largest share, with 14.4 percent, and the Navy Reserve had the smallest, with 7.5 percent.
  - As mentioned in previous sections of this IP, we calculated ratios to determine how closely the lower ranks mirrored the upper ranks in terms of gender makeup. The ratios of warrant officers to enlisted personnel for each component were as follows: Army Reserve = 0.61, Coast Guard Reserve = 0.84, Marine Corps Reserve = 1.77, and Navy Reserve = 0.36. Ratios close to 1.0 indicate that the upper and lower ranks within a given component were proportionally similar in terms of gender makeup. The Marine Corps Reserve, with a ratio over 1.0, stands out.

**Points to Take Away from Table 9**

- There was a significant difference in the size of the components, especially in the enlisted force. The Army Reserve, with 161,003 personnel, was the largest, and the Coast Guard Reserve, with 6,590 personnel, was the smallest.
- In all components, there was a significant difference in the size of the enlisted force when compared with the warrant officer corps.

**Figure 9. Percentage of Female Enlisted Personnel and Warrant Officers, by Service, September 2008**



**Table 9. Number of Enlisted Personnel and Warrant Officers, by Gender, September 2008**

Component	Enlisted			Warrant Officers		
	Total	Male	Female	Total	Male	Female
USAR	161,003	122,633	38,370	2,837	2,428	409
USCGR	6,590	5,668	922	170	150	20
USMCR	34,046	32,413	1,633	319	292	27
USNR	53,222	42,280	10,942	134	124	10

## Race and Ethnicity

As noted in the earlier officer and enlisted sections, in the portions of this paper that pertain to race/ethnicity, we first combine all race/ethnicity categories<sup>12</sup> into a single group in order to contrast that group with non-Hispanic whites (white, NH) and those whose race/ethnicity are unknown. We call this combined group “minority.” Later, we examine each race/ethnicity category individually. Because our focus is specifically on race/ethnicity in this section, we do not further categorize by gender. That is, both women and men are included in the categories used in this section.

Furthermore, we also previously noted that, in the Coast Guard (both active duty and Reserve), the number of service-members in the other, NH category was, 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

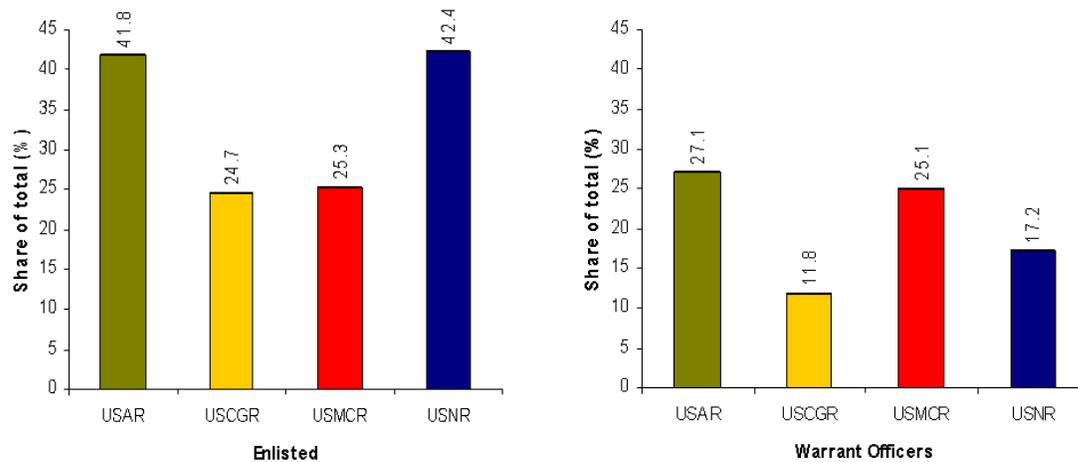
implications are twofold: Primarily, the other, NH category is likely too high; secondarily, the other race/ethnicity categories may be too low. Thus, as mentioned elsewhere, we urge caution in interpretation.

Figure 10 presents detailed racial/ethnic shares of enlisted for enlisted personnel and warrant officers, and Table 10 shows the corresponding raw counts.

### Points to Take Away from Figure 10

- Regarding enlisted personnel,
  - Minority representation in the Army Reserve and the Navy Reserve was similar, at 41.8 percent and 42.4 percent, respectively, as was minority representation in the Coast Guard Reserve and the Marine Corps Reserve, at 24.7 percent and 25.3 percent, respectively.
- Regarding warrant officers,
  - In both the Army Reserve and the Marine Corps Reserve, race/ethnic minorities made up slightly more than one-quarter of the warrant officer population. The minority share in the Navy Reserve was 17.2 percent, and the minority share in the Coast Guard Reserve was 11.8 percent.

**Figure 10. Percentage of Minority Enlisted Personnel and Warrant Officers, by Service, September 2008**



**Table 10. Number of Enlisted Personnel and Warrant Officers, by Race/Ethnicity Category and Rank, September 2008**

Component	Enlisted				Warrant Officers			
	Total	White, NH	Minority	Unknown	Total	White, NH	Minority	Unknown
USAR	161,003	92,334	67,272	1,397	2,837	2,034	768	35
USCGR	6,590	4,869	1,628	93	170	147	20	3
USMCR	34,046	23,799	8,628	1,619	319	212	80	27
USNR	53,222	29,264	22,579	1,379	134	101	23	10

- The ratios of minority warrant officers to minority enlisted personnel were as follows: Army Reserve = 0.65, Coast Guard Reserve = 0.48, Marine Corps Reserve = 0.99, and Navy Reserve = 0.41. With a ratio just slightly under 1.0, the warrant officer and enlisted populations of the Marine Corps Reserve mirrored each other almost exactly.

Figure 11 shows detailed racial/ethnic shares by category for enlisted personnel, and Table 11 shows the raw counts.

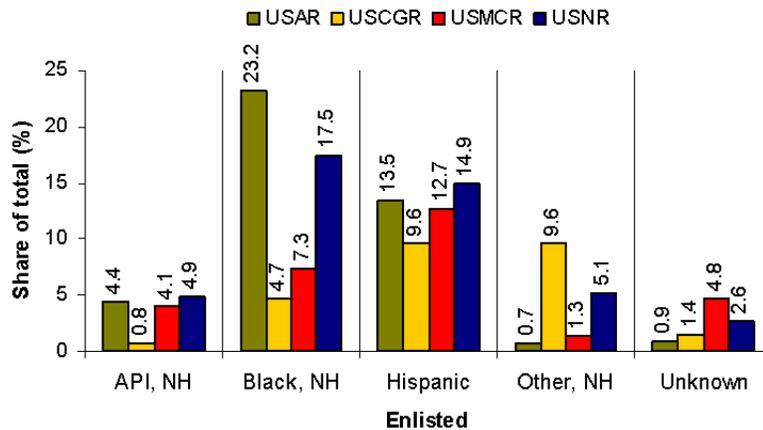
**Points to Take Away from Figure 11**

- Regarding non-Hispanic Asians and Pacific Islanders (API, NH),
  - With the exception of the Coast Guard Reserve, representation in this category was relatively even, ranging between 4.1 percent and 4.9 percent. The Coast Guard Reserve share was 0.8 percent.
- Regarding non-Hispanic blacks (black, NH),
  - The Army Reserve, with 23.2 percent, had the largest share in this category, and the Navy Reserve followed closely behind, with 17.5 percent. The Marine Corps Reserve and the Coast Guard Reserve had 7.3- and 4.7-percent shares, respectively.

- Regarding Hispanics,
  - Hispanic representation was relatively even across components, with percentages ranging between 9.6 percent and 14.9 percent.
- Regarding non-Hispanic others (other, NH),
  - The Coast Guard Reserve had the largest share in this category.<sup>13</sup> The Navy Reserve share was 5.1 percent, and the Marine Corps Reserve and Army Reserve had 1.3- and 0.7-percent shares, respectively.
- Regarding “unknown,”
  - Shares in this category ranged between 0.9 percent and 4.8 percent. The Marine Corps Reserve share was the largest, and the Army Reserve share was the smallest.

Figure 12 shows detailed race/ethnicity shares by category for warrant officers, and Table 12 shows the raw counts.

**Figure 11. Percentage of Enlisted Personnel, by Race/Ethnicity Category, September 2008**



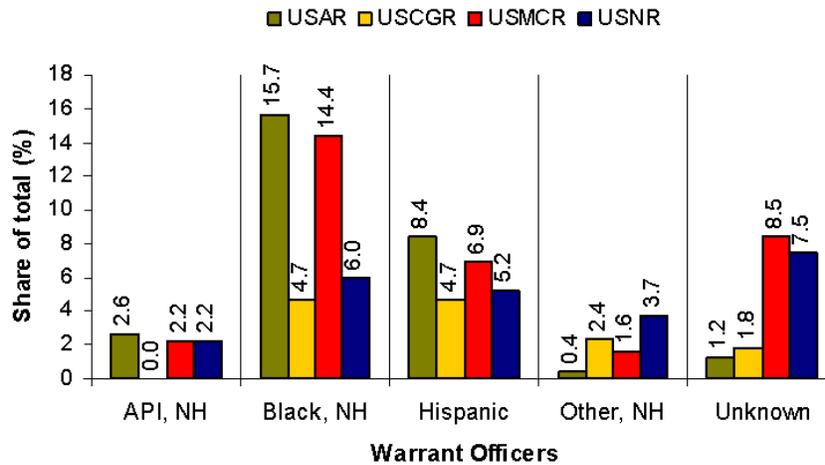
**Table 11. Number of Enlisted Personnel, by Race/Ethnicity Category, September 2008**

Component	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USAR	7,045	37,365	21,733	1,129	92,334	1,397
USCGR	52	311	630	635	4,869	93
USMCR	1,381	2,500	4,313	434	23,799	1,619
USNR	2,609	9,288	7,951	2,731	29,264	1,379

**Points to Take Away from Figure 12**

- As previously noted, the warrant officer population was significantly smaller than the enlisted population. When broken out by race/ethnicity category, the numbers became even smaller. Therefore, any interpretation of the percentages presented above should take into account the numbers upon which these percentages are based (see Table 12).
- Regarding non-Hispanic Asians and Pacific Islanders (API, NH),
  - While the Coast Guard Reserve had no representation in this category, the other components ranged between 2.2 percent and 2.6 percent.
  - As previously discussed, we calculated ratios to determine whether the warrant officer corps mirrored the enlisted population in terms of racial/ethnic makeup. Ratios close to 1.0 indicate similarity between the two. The ratios in this category were as follows: Army Reserve = 0.59, Coast Guard Reserve = 0.00, Marine Corps Reserve = 0.54, and Navy Reserve = 0.45.
- Regarding non-Hispanic blacks (black, NH),
  - The Army Reserve and the Marine Corps Reserve had 15.7-percent and 14.4-percent representation in this category, respectively. The Coast Guard Reserve had a 4.7-percent share, and Navy Reserve had 6.0 percent.
  - The ratios of warrant officers to enlisted personnel for each of the components were as follows: Army Reserve = 0.68, Coast Guard Reserve = 1.00, Marine Corps Reserve = 1.97, and Navy Reserve = 0.34. Both the Coast Guard Reserve and the Marine Corps Reserve stand out. The Coast Guard Reserve's ratio of 1.00 indicates that the percentage of non-Hispanic blacks in the warrant officer corps was identical to the percentage of non-Hispanic blacks in the enlisted population. The Marine Corps Reserve's ratio of 1.97 indicates that there were proportionally more blacks in the warrant officer population than in the enlisted population of that component.

**Figure 12. Percentage of Warrant Officers, by Race/Ethnicity Category, September 2008**



**Table 12. Number of Warrant Officers, by Race/Ethnicity Category, September 2008**

Component	API, NH	Black, NH	Hispanic	Other, NH	White, NH	Unknown
USAR	75	444	238	11	2,034	35
USCGR		8	8	4	147	3
USMCR	7	46	22	5	212	27
USNR	3	8	7	5	101	10

- Regarding Hispanics,
  - With percentages ranging between 4.7 and 8.4, Hispanic representation across components was fairly even, especially when compared with, for example, the black, NH category. The Army Reserve had the largest share, and the Coast Guard Reserve had the smallest.
  - The ratios of warrant officers to enlisted personnel were as follows: Army Reserve = 0.62, Coast Guard Reserve = 0.49, Marine Corps Reserve = 0.54, and Navy Reserve = 0.35.
- Regarding non-Hispanic others (other, NH),
  - The Navy Reserve had the highest representation in this category, with 3.7 percent. The Coast Guard Reserve<sup>14</sup> and the Marine Corps Reserve had 2.4 percent and 1.6 percent, respectively. The Army Reserve share was 0.4 percent.
  - The ratios of warrant officers to enlisted personnel were as follows: Army Reserve = 0.57, Coast Guard Reserve = 0.25, Marine Corps Reserve = 1.23, and Navy Reserve = 0.73.
- Regarding “unknown,”
  - Both the Marine Corps Reserve and the Navy Reserve had relatively large shares in this category—8.5 percent and 7.5 percent, respectively. The Army Reserve and the Coast Guard Reserve had smaller shares—1.2 percent and 1.8 percent, respectively.
  - The ratios of warrant officers to enlisted personnel were as follows: Army Reserve = 1.33, Coast Guard Reserve = 1.29, Marine Corps Reserve = 1.77, and Navy Reserve = 2.88.

### Summary

In this IP, we present consistent demographic profiles of the officer, enlisted, and warrant officer populations that form five of the Reserve components: the Air Force Reserve, the Army Reserve, the Coast Guard Reserve, the Marine Corps Reserve, and the Navy Reserve. We look at both gender and race/ethnicity categories, and we present both percentages and raw counts to facilitate comparisons and show differences in magnitude. The snapshot data used in this paper are from September 2008 and come from DMDC. In an appendix, we display data from 2000 through 2008 to capture changes over time.

In this paper, we do not discuss factors that may explain any differences or similarities perceived in the numbers. We urge caution in any interpretation not only because the factors are not explored but because, in several cases, the sample sizes are very small.

### Notes

<sup>1</sup>See Military Leadership Diversity Commission (2010a) for data on active-duty officers. See Military Leadership Diversity Commission (2010b) for data on the active-duty enlisted ranks. See Military Leadership Diversity Commission (2010c) for data on the active-duty warrant officer corps. See Military Leadership Diversity Commission (2010d) for data on the officer, enlisted, and warrant officer populations of the two components of the National Guard (the Air National Guard and the Army National Guard).

<sup>2</sup>See Military Leadership Diversity Commission (2010e) for a description of the different personnel categories for the National Guard and Reserve, including the SelRes.

<sup>3</sup>See Military Leadership Diversity Commission (2009) for additional information about race/ethnicity categories.

<sup>4</sup>A standard indicator of whether differences in shares are large or small is whether they are statistically significant, which measures the likelihood that the differences could have occurred by chance alone. Whether a difference is statistically significant depends greatly on sample size: Very small differences can be statistically significant if the sample size is large enough; large differences can be statistically insignificant if the sample size is small enough. In this IP, we do not present tests of statistical significance because the results are sample-size driven and give little insight into the meaning of the differences across the components.

<sup>5</sup>It is important to keep this in mind when looking at the series of snapshots presented in the appendix: Small changes in numbers from year to year can produce apparently large changes in shares.

<sup>6</sup>These include non-Hispanic Asian and Pacific Islander (API, NH), non-Hispanic black (black, NH), Hispanic, and non-Hispanic other (American Indians, Alaska natives, and “more than one race”).

<sup>7</sup>Please see the introduction to this section for an explanation of Coast Guard (active-duty and Reserve) data.

<sup>8</sup>Differences in the profiles of senior personnel relative to other personnel can occur for many reasons. In a closed personnel system, changes in the demographic makeup of accessions over time will cause demographic-diversity disconnects between senior and junior cohorts. Then, differences in promotion and retention rates can either offset or exacerbate disconnects that arise due to changes in the accession mix. Additional information is required to understand what causes changes in the accession mix and differences in retention and promotion rates. Such information includes data on changes in the external environment and knowledge of policies and practices that affect accessions, retention, and promotion.

<sup>9</sup>These include non-Hispanic Asian and Pacific Islander (API, NH), non-Hispanic black (black, NH), Hispanic, and non-Hispanic other (American Indians, Alaska natives, and “more than one race”).

<sup>10</sup>Please see the introduction to this section for an explanation of Coast Guard (active duty and Reserve) data.

<sup>11</sup>Please see the introduction to this section for an explanation of Coast Guard (active duty and Reserve) data.

<sup>12</sup>These include non-Hispanic Asian and Pacific Islander (API, NH), non-Hispanic black (black, NH), Hispanic, and non-Hispanic other (American Indians, Alaska natives, and “more than one race”).

<sup>13</sup>Please see the introduction to this section for an explanation of Coast Guard (active duty and Reserve) data.

<sup>14</sup>Please see the introduction to this section for an explanation of Coast Guard (active duty and Reserve) data.

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