

**MLDC Research Areas**

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

Military Leadership Diversity
Commission
1851 South Bell Street
Arlington, VA 22202
(703) 602-0818

<http://mldc.whs.mil/>

Reenlistment Rates Across the Services by Gender and Race/Ethnicity

Abstract

The MLDC has been tasked with assessing the Services' ability to *increase* continuation rates for racial/ethnic minorities and women. As a first step toward this goal, this issue paper presents retention rates (measured by zone-specific reenlistment rates) for enlisted servicemembers in the Army, the Navy, the Marine Corps, and the Air Force by gender and race/ethnicity. Although the language in the MLDC charter suggests that retention rates among minority race and ethnicity groups are lower than those of whites, this does not appear to be the case: The data show that reenlistment rates for blacks, Hispanics, and Asian/Pacific Islanders are actually higher than reenlistment rates for whites. However, as time in service increases, the gap between minority and white reenlistment rates closes. In contrast to racial/ethnic differences, the evidence presented here does suggest that, on average, reenlistment rates are lower among women than men. Further, the gap in reenlistment rates between men and women grows from Zone A to Zone B but shrinks once servicemembers reach Zone C.

The charter for the MLDC has one specific task that is directly relevant to retention: "Measure the ability of current activities to increase continuation rates for ethnic- and gender-specific members of the Armed Forces." Implicit in this task is the assumption that minorities and women have lower continuation or retention rates than white men. The purpose of this issue paper (IP) is to use comparable data across all four DoD Services—the Army, the Navy, the Marine Corps, and the Air Force—to estimate retention among minority and female enlisted personnel who served in the armed forces

between 2000 and 2008 and to compare their rates to those of whites and males. This IP should be seen as a supplement to the briefings provided by Service representatives at the January 2010 meeting of the MLDC in San Antonio, TX.¹

It is important to acknowledge what the use of raw rates can and cannot tell us about gender and racial/ethnic differences in enlisted retention.² In a separate IP (Military Leadership Diversity Commission, 2010), we review the methodological limitations of using raw rates to calculate promotion and retention rates. First, even though differences across groups may be statistically significant, they may not be meaningful from a policy perspective. Second, gender and race/ethnicity groups may vary on other important characteristics that raw rates are not able to address.

Nonetheless, the raw rates still yield important information. First, the raw rates show whether there are average, aggregate differences between men and women and between minorities and whites and whether those differences are large or small.³ Second, raw rates can be used to identify demographic differences that merit additional attention, especially with respect to what the underlying cause or causes of those differences may be. Third, the raw rates presented here provide the most-recent trends in retention.

Data

Data for this IP come from a personnel file provided by the Defense Manpower Data Center (DMDC) called the Proxy Personnel Tempo (PERSTEMPO) File. It is built using extracts from the active-duty personnel and pay files maintained by DMDC. We focus on the period from fiscal year (FY) 2000 through FY 2008.⁴

Measurement

Consistent with other IPs produced by the MLDC, *race/ethnicity* is defined as follows:

- white, non-Hispanic
- black, non-Hispanic
- Asian and Pacific Islander, non-Hispanic
- other, non-Hispanic (includes American Indians, Alaska natives, and individuals of more than one race)
- Hispanic.⁵

Although retention can be calculated in a number of ways, this IP focuses on *reenlistment rates*. These rates provide an indication of what percentage of enlisted servicemembers are retained in the same component after their service obligations are complete. As an individual's estimated expiration of term of service (ETS) approaches zero, he or she has three options: reenlist, extend the service contract, or exit the military. For this IP, *reenlistment* is defined as a change in ETS date of 36 months or more. We chose this cutoff because a change of less than 36 months may reflect an extension of service rather than a true reenlistment. Unfortunately, the PERSTEMO data do not indicate whether an increase in ETS was due to an extension or a reenlistment.

By definition, the focus on reenlistment restricts the analysis to servicemembers who are eligible to both voluntarily leave active-duty service and to reenlist.⁶ For the purposes of this IP, an "eligible" servicemember is one who has completed at least 17 months of service. The PERSTEMPO data cannot tell us whether servicemembers are "eligible" in the sense that they meet their Service's specific requirements to reenlist.⁷

We present results by zone. Servicemembers in Zone A have between 17 months and 6 years of service when they reenlist, Zone B servicemembers have 6–10 years of service, and servicemembers in Zone C have 10–14 years of service.⁸ All rates are presented by FY.

Before presenting the results, we note two general trends in reenlistment rates. First, as we move from Zone A to Zone B to Zone C, reenlistment rates increased regardless of branch of Service, gender, or race/ethnicity. Second, reenlistment rates were generally highest among airmen regardless of zone, but there was considerable variability among soldiers, sailors, and marines. Among Zone A reenlistments, marines typically had the lowest reenlistment rates, but in Zones B and C, soldiers and sailors typically had the lowest reenlistment rates. These trends tended to hold for men and women as well as whites and minorities.

Reenlistment Rates by Gender

Figures 1 through 4 show reenlistment rates by Service, zone, and gender across FY 2000 through FY 2008. In all of the figures, women's reenlistment rates are lower than men's. That is, regardless of Service branch, the dashed lines are generally always lower than the solid lines.⁹ There are two notable exceptions: In the Air Force, women's Zone A

reenlistment was higher than men's during the mid-2000s, and in the Marine Corps, Zone A men and women had very similar reenlistment rates over the period we observe.

Reenlistment Rates by Race/Ethnicity

The next 12 figures show reenlistment rates by Service, zone, and race/ethnicity.¹⁰ Beginning with Zone A, Figures 5–8 show that, regardless of Service branch or FY, minorities (i.e., blacks, Hispanics, and Asian/Pacific Islanders) had the highest reenlistment rates, and whites and servicemembers who classify themselves as being of "other" race/ethnicity had the lowest reenlistment rates.

Moving to Zone B, Figures 9–12 show a similar story: Blacks, Hispanics, and Asian/Pacific Islanders had higher reenlistment rates than either whites or other race/ethnicities. The one exception occurred in the Navy after 2003. From that point, trend lines for whites, blacks, Hispanics, and other races/ethnicities were roughly equal through 2008. However, reenlistment rates for Zone B Asian/Pacific Islander sailors were consistently higher than those of the other race/ethnicity groups.

Finally, Figures 13–16 show Zone C reenlistment rates, or what are sometimes referred to as *career reenlistments*. These were individuals who, after 14 years of service, were likely to continue in service until eligible for full military retirement at 20 years of service (YOS).¹¹ Not surprisingly, reenlistment rates were higher among servicemembers in this group than among servicemembers in Zones A and B. On average, gender and racial/ethnic trends for Zone C are similar to those for Zones A and B, with a few notable exceptions. First, in the Navy, reenlistment rates for blacks, Hispanics, and whites clustered together after FY 2000, with no group showing consistently higher rates than the others. Reenlistment rates among Asian/Pacific Islander sailors were consistently above those of the other race/ethnicity groups, however. Second, among marines, black and Asian/Pacific Islanders' reenlistment rates trended with those of their white counterparts, but Hispanic rates were consistently higher than white rates after FY 2000. Third, reenlistment rates for black and white servicemembers in the Air Force are virtually indistinguishable between FY 2000 and FY 2008, but reenlistment rates among Hispanics and Asian/Pacific Islanders remained above those of both whites and blacks. In general, these results suggest that, as time in service increases, the differences in reenlistment rates by race/ethnicity shrink.

Conclusion

The purpose of this IP was to show raw reenlistment rates among enlisted servicemembers across DoD components by gender and race/ethnicity. We presented reenlistment rates by zone to assess whether women and minorities are less likely to remain in active-duty service through a certain point in their military careers. The data presented here can be summarized as follows:

- Reenlistment rates among women are lower than among men, and this holds regardless of Service branch or zone, although the gender gap in reenlistment rates grows from Zone A to Zone B but shrinks once servicemembers reach Zone C.
- Across the Services, reenlistment rates are higher for blacks, Hispanics, and Asian/Pacific Islanders than for whites, but the gap shrinks as time in service (or zone) increases.

The results presented here mirror those presented during Service briefings to the MLDC in February 2010.¹²

Given the consistency of gender differences in reenlistment rates, more investigation into why these differences exist and what, if anything, should be done about them is warranted. In contrast, the fact that differences by race/ethnicity were small and, more importantly, not in the expected direction (especially at early career reenlistment points) suggests that enlisted retention is not a primary area of policy concern for the MLDC as it considers its recommendations.

Notes

¹These presentations can be accessed at <http://mldc.whs.mil/index.php/activities/january-meeting>. Note that retention rates from the Coast Guard are not presented in this IP because DMDC does not collect comparable data for that component. Similar rates can be obtained from the Coast Guard presentation on the above-referenced MLDC web page. A separate IP focuses on retention, or continuation rates, among officers.

²*Raw retention rates* refers to rates that do not control for other demographic factors that may be associated with gender and race/ethnicity as well as retention (e.g., marital status, educational attainment).

³This IP does not focus on the statistical significance of differences in reenlistment rates between gender and race/ethnicity groups primarily because of small sample sizes that could skew significance tests.

⁴Due to differences in data-leaning procedures and measurement techniques used by individual subcommittees, some results using the same data sources may be slightly inconsistent across IPs.

⁵See Military Leadership Diversity Commission (2009). Note that, for this analysis, Asian and Pacific Islander are combined into a single category because data collected prior to 2003 cannot separate Pacific Islanders from Asians.

⁶The decision to formally reenlist or extend a current enlistment contract is complicated and, thus, reenlistment rates are more difficult to quantify than continuation rates among officers.

⁷These enlisted members would be included in the denominator of our reenlistment rate. We do, however, include individuals who left service with more than six months of their ETS left because these were likely discharges. This analysis does not account for enlisted servicemembers who become officers or servicemembers who are killed or injured.

⁸Although we do not report on Zones D (14–20 YOS) and E (20+ YOS) or on overall reenlistment rates in the text, rates for these zones can be found in Appendixes A and B.

⁹Actual reenlistment rates by gender and zone are presented in Appendix A.

¹⁰Actual reenlistment rates by race/ethnicity and zone are presented in Appendix B.

¹¹However, we cannot always assume that simply because an individual has remained in service until YOS 14 and is likely to continue that he or she will reside among the senior enlisted ranks. That is, YOS does not always equal rank.

¹²See endnote 1.

References

Military Leadership Diversity Commission. (2009, November). *How we define race and ethnicity categories for MLDC research*. [Issue Paper #1]. Arlington, VA: Military Leadership Diversity Commission.

Military Leadership Diversity Commission. (2010, March). *Key considerations in interpreting promotion and retention rates*. [Issue Paper #17]. Arlington, VA: Military Leadership Diversity Commission.

Figure 1. Reenlistment Rates, by Gender and Zone, Army, FY 2000–FY 2008

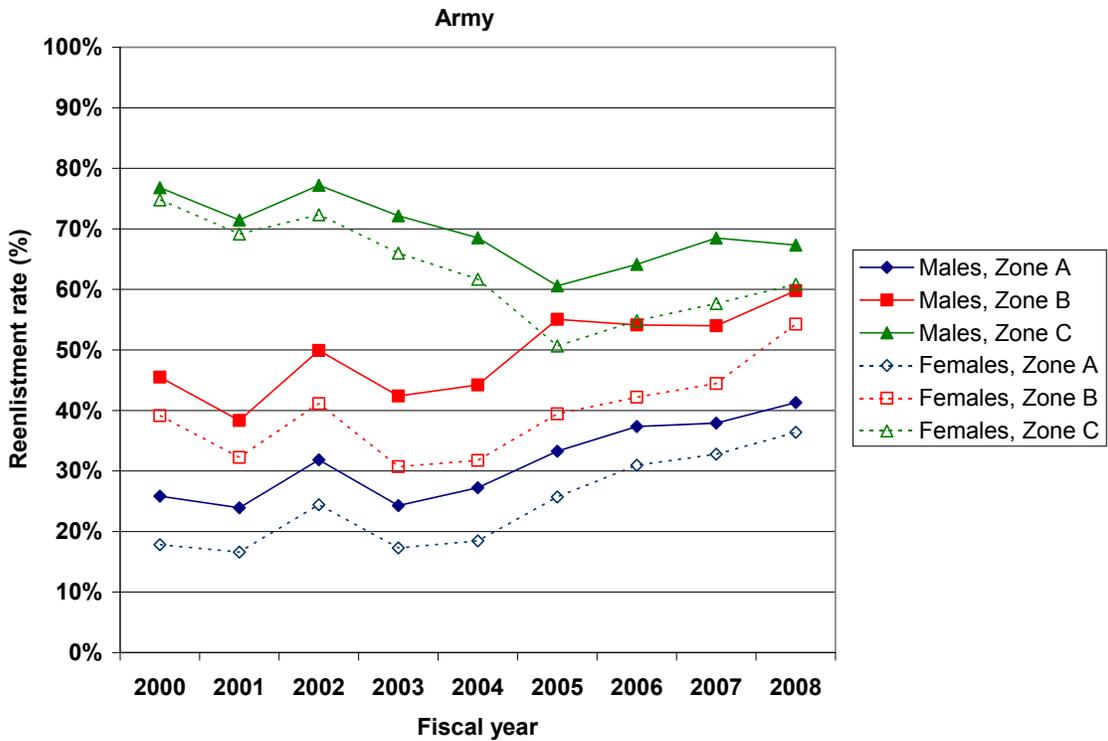


Figure 2. Reenlistment Rates, by Gender and Zone, Navy, FY 2000–FY 2008

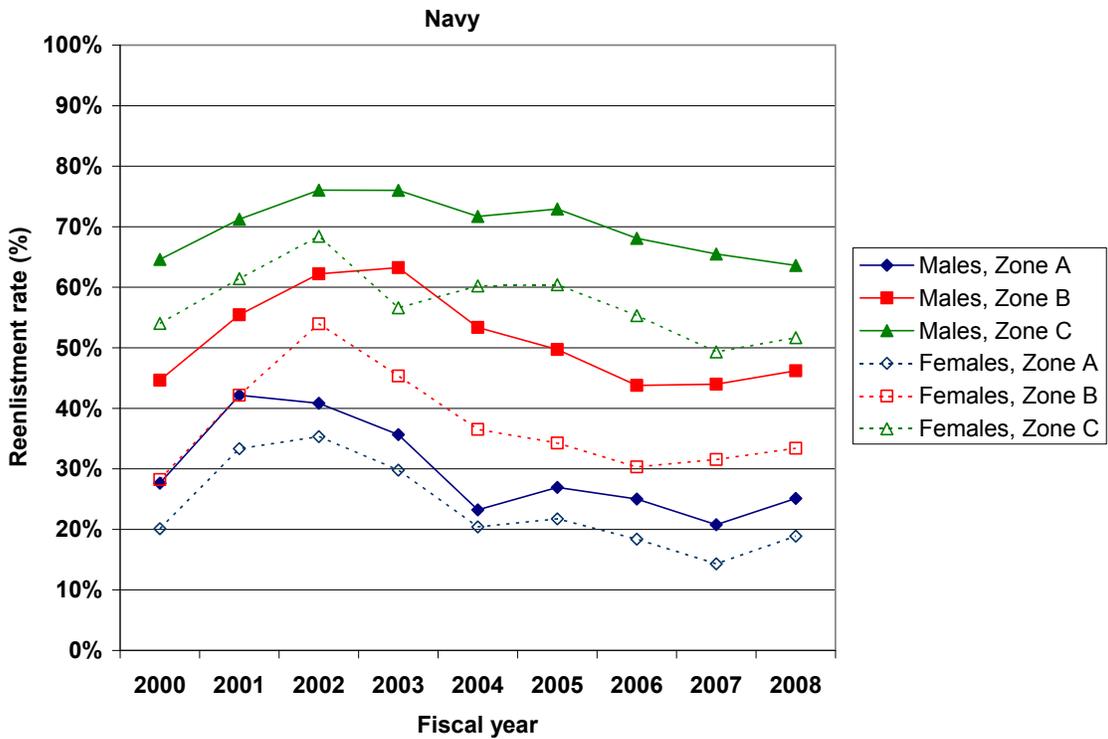


Figure 3. Reenlistment Rates, by Gender and Zone, Marine Corps, FY 2000–FY 2008

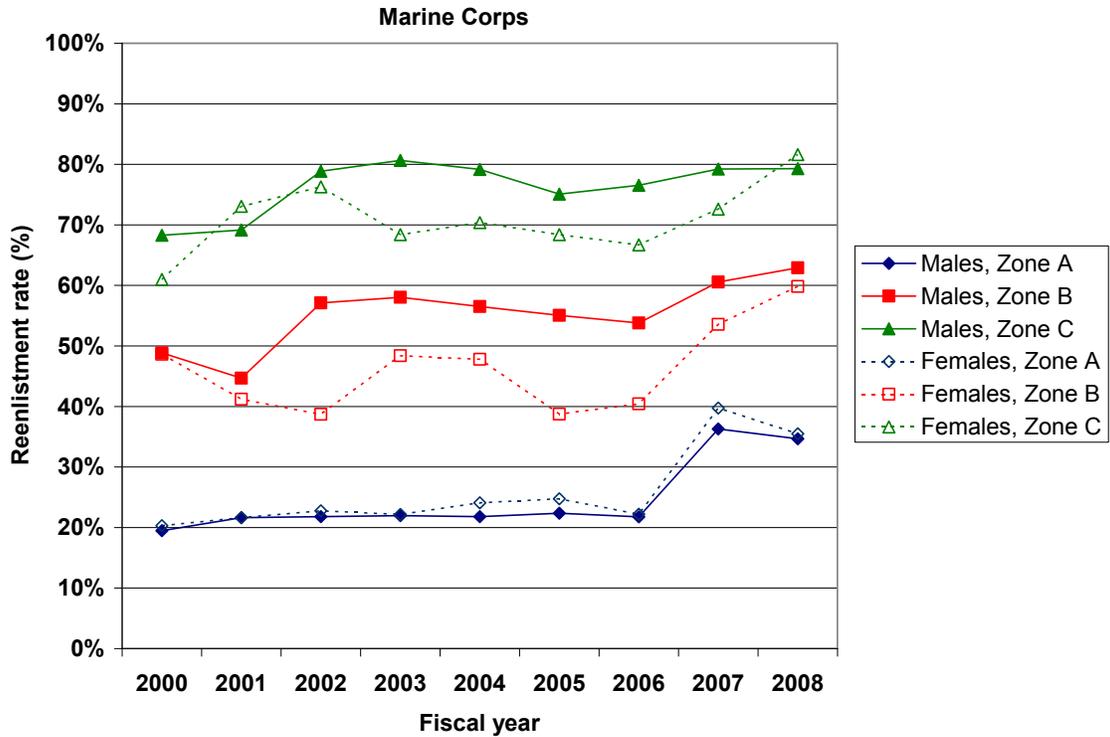


Figure 4. Reenlistment Rates, by Gender and Zone, Air Force, FY 2000–FY 2008

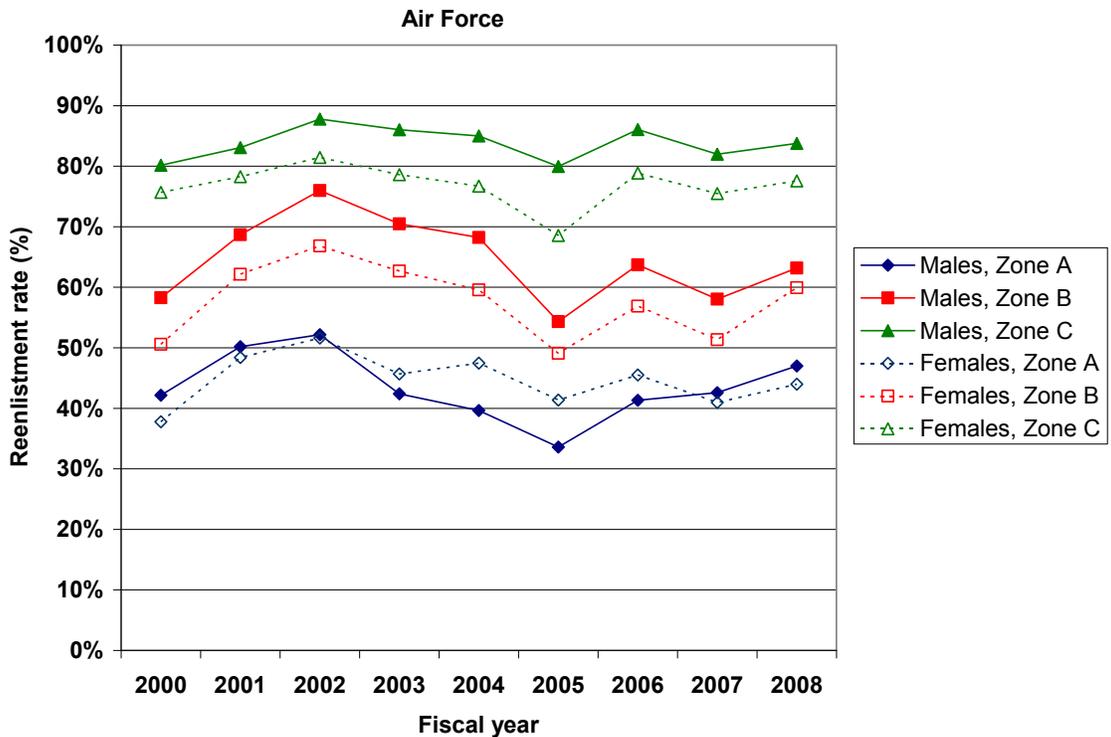


Figure 5. Zone A Reenlistment Rates, by Race/Ethnicity, Army, FY 2000–FY 2008

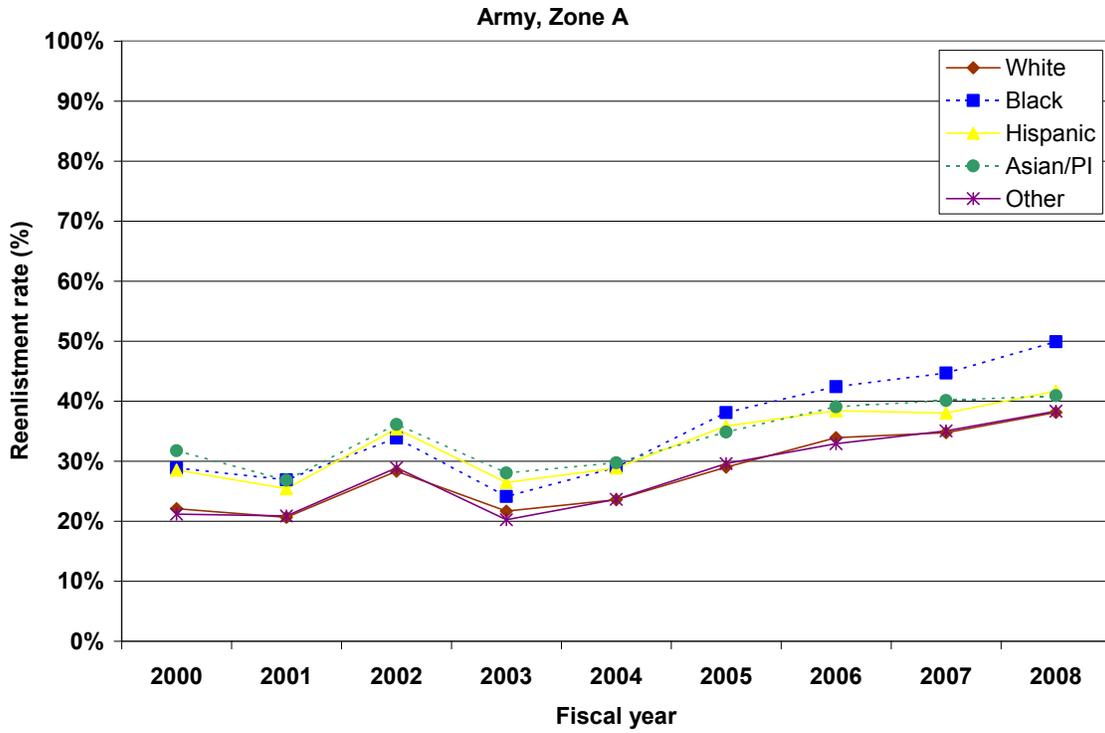


Figure 6. Zone A Reenlistment Rates, by Race/Ethnicity, Navy, FY 2000–FY 2008

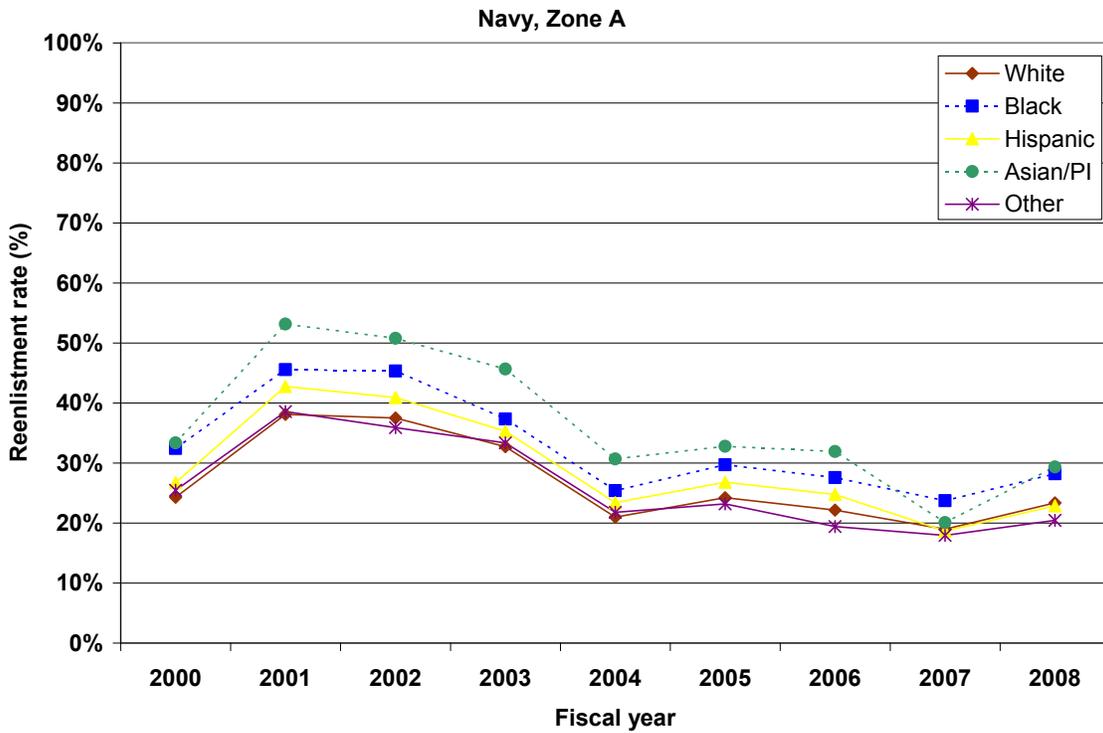


Figure 7. Zone A Reenlistment Rates, by Race/Ethnicity, Marine Corps, FY 2000–FY 2008

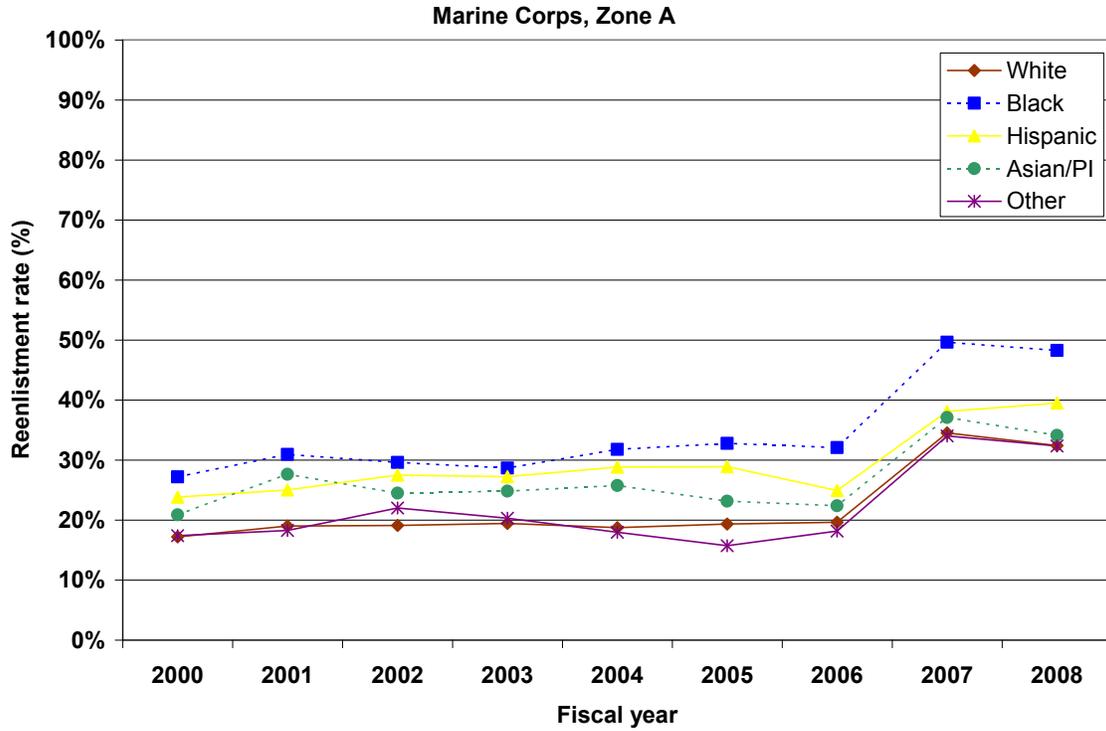


Figure 8. Zone A Reenlistment Rates, by Race/Ethnicity, Air Force, FY 2000–FY 2008

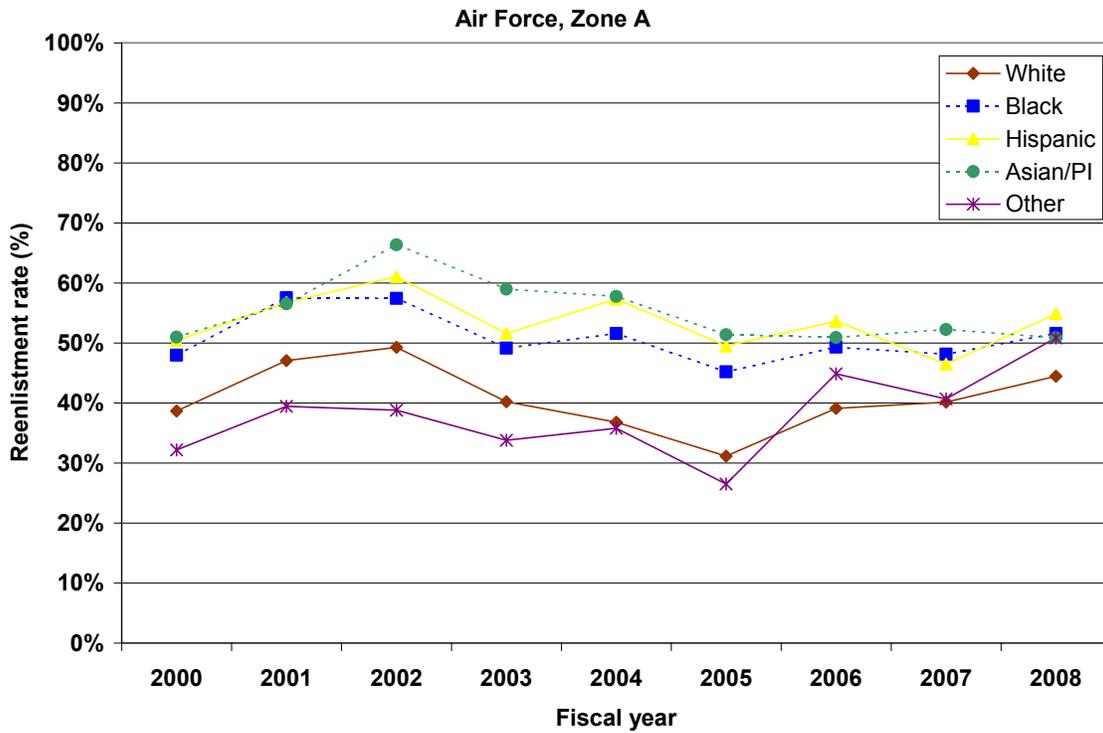


Figure 9. Zone B Reenlistment Rates, by Race/Ethnicity, Army, FY 2000–FY 2008

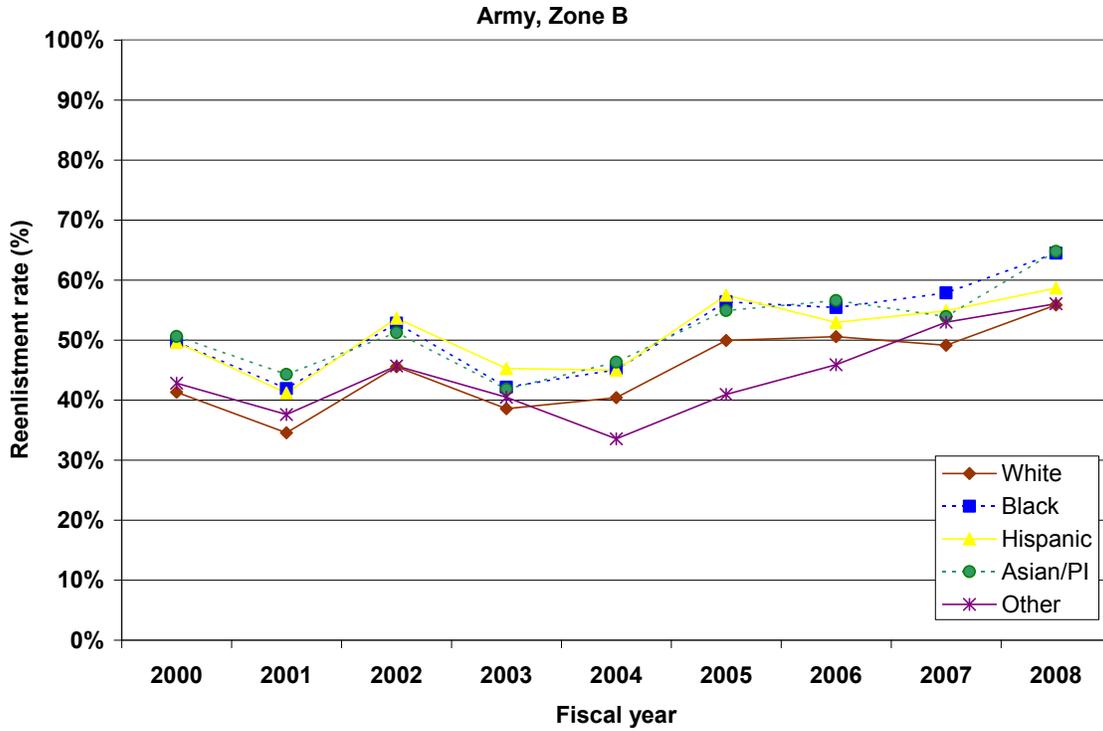


Figure 10. Zone B Reenlistment Rates, by Race/Ethnicity, Navy, FY 2000–FY 2008

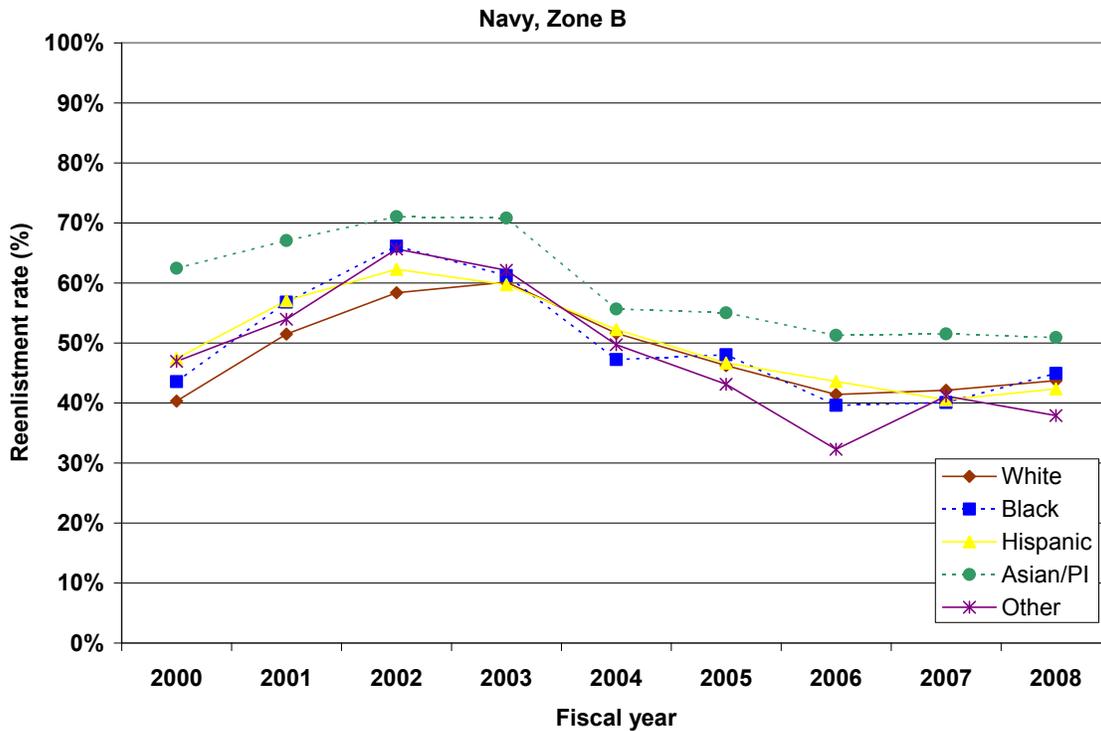


Figure 11. Zone B Reenlistment Rates, by Race/Ethnicity, Marine Corps, FY 2000–FY 2008

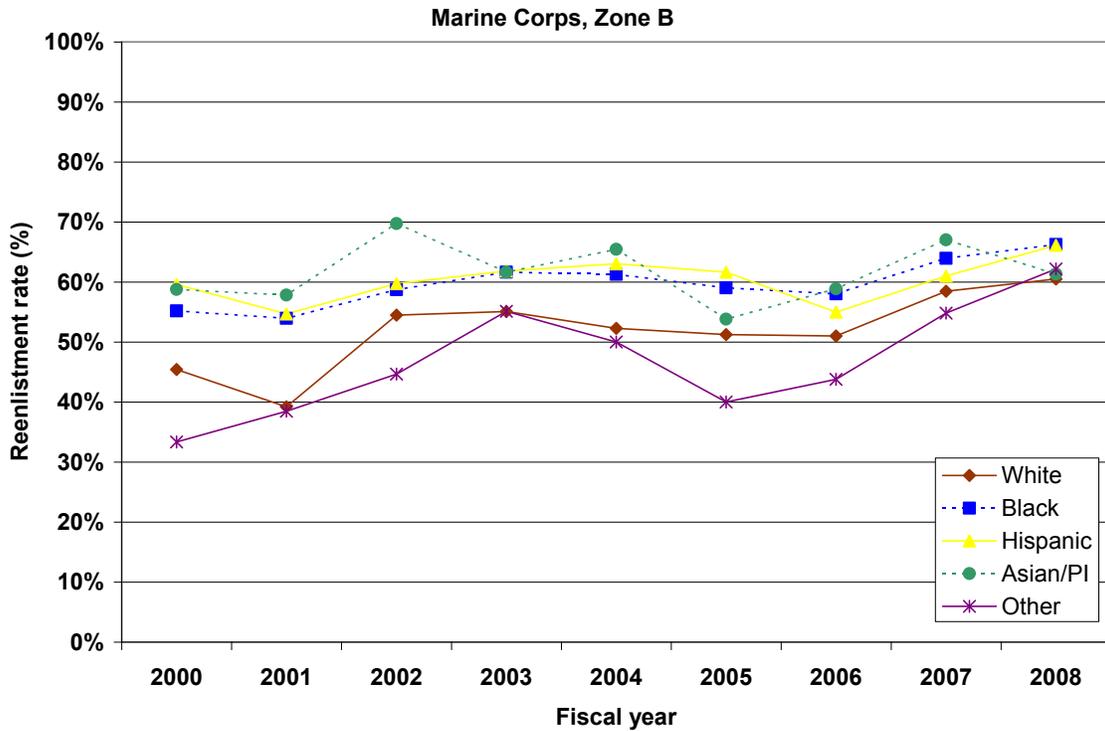


Figure 12. Zone B Reenlistment Rates, by Race/Ethnicity, Air Force, FY 2000–FY 2008

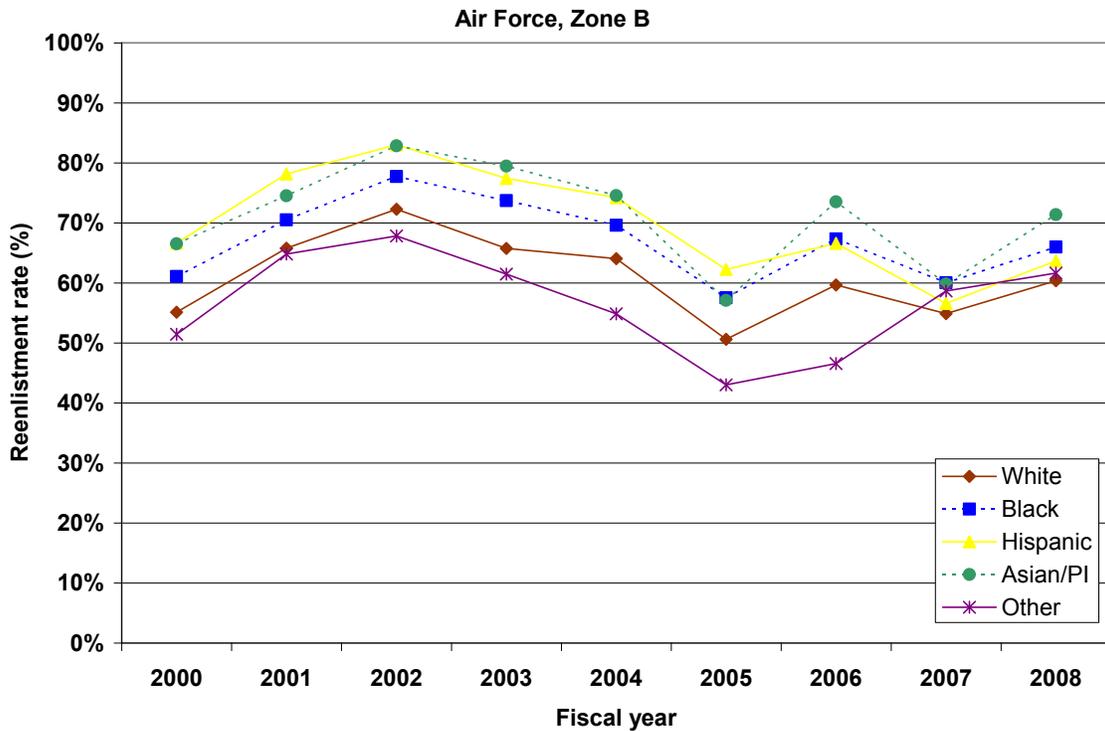


Figure 13. Zone C Reenlistment Rates, by Race/Ethnicity, Army, FY2000–FY2008

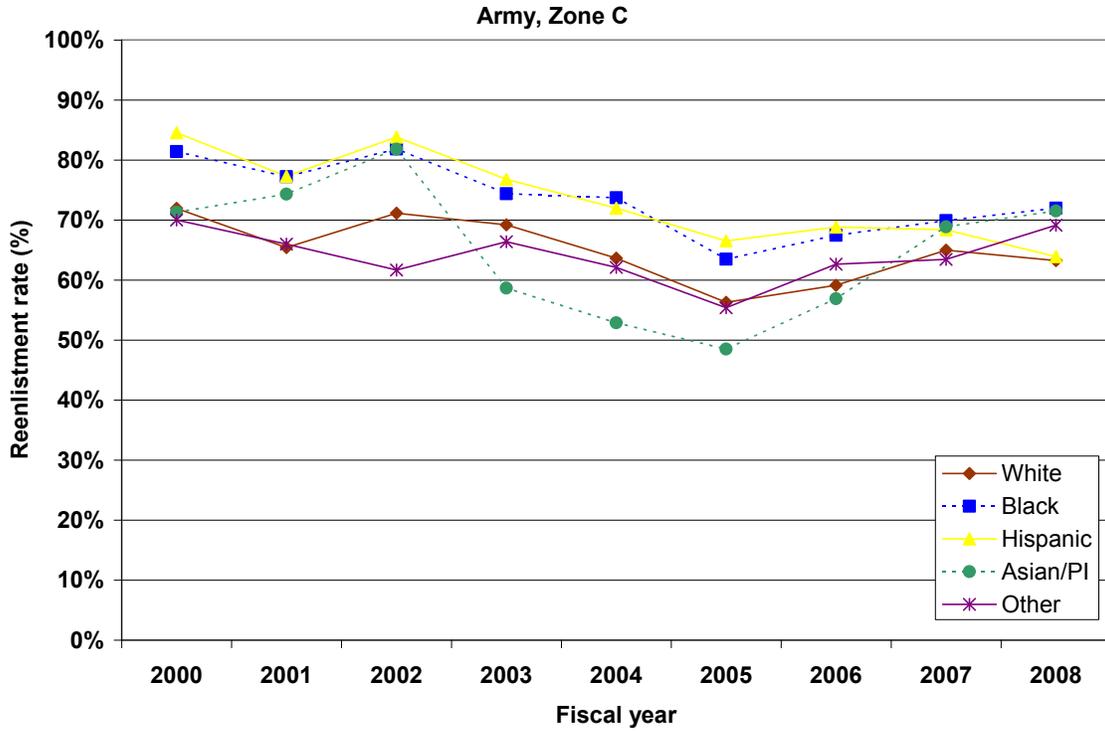


Figure 14. Zone C Reenlistment Rates, by Race/Ethnicity, Navy, FY2000–FY2008

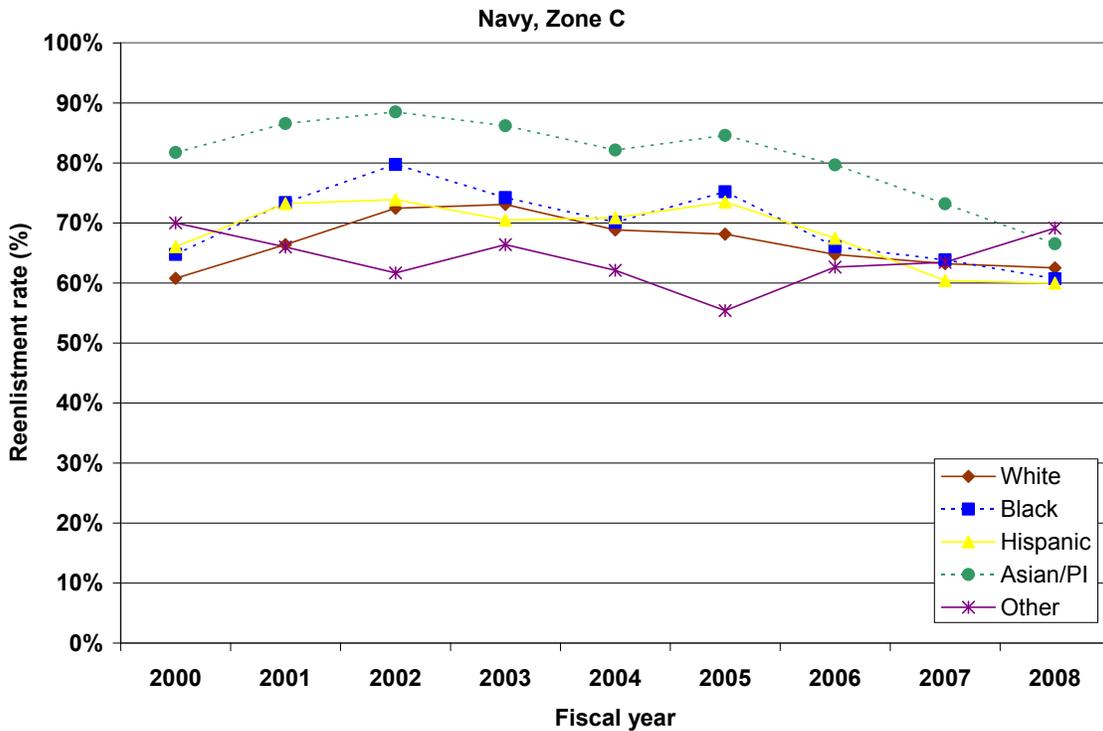


Figure 15. Zone C Reenlistment Rates, by Race/Ethnicity, Marine Corps, FY2000–FY2008

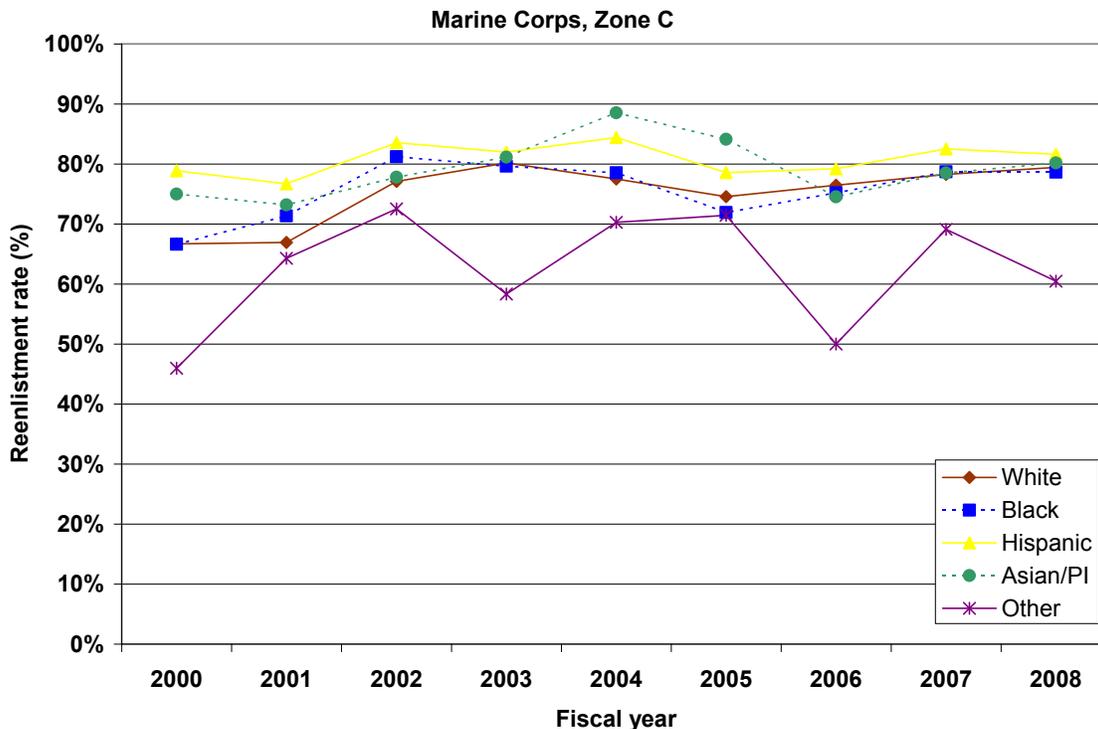


Figure 16. Zone C Reenlistment Rates, by Race/Ethnicity, Air Force, FY2000–FY2008

