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AIR UNIVERSITY

DEMOGRAPHIC SHIFTS IN THE UNITED STATES AIR FORCE  
1994 - 2007

by

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## Biography

Lieutenant Colonel Stephen P. Melroy is an Air War College student at Maxwell Air Force Base, Alabama. He received his commission through the Reserve Officer Training Corps at Clarkson University and entered active duty in September of 1985. Lt Col Melroy has held various positions in fighter, supply, and maintenance squadrons and commanded two maintenance squadrons. His maintenance experience includes F-15C, F-15E, A-10, F-16, RC-135, RQ-4 “Global Hawk”, MQ-9 “Predator” and U-2. He is married to the former Deanna Pacansky of Erie Pennsylvania and they have two sons, Justin, 5 and Ryan, 3.

## Introduction

The United States Air Force (USAF) faces a crossroads in the 21<sup>st</sup> century. Perhaps at no time since its inception does it face so many challenges of such great importance as it does today – the Global War on Terrorism, commitments to the war in Iraq and Afghanistan, an aging aircraft fleet, and ever-present budgetary pressures. No one challenge is insurmountable yet the confluence of all the issues at a single point in time marks it as a critical juncture. How we continue to organize, train, equip, and most importantly with *whom* we fill the ranks of those in uniform to fight today's and tomorrow's battles will dictate our level of success.

The United States (US) military continues to fill its ranks on a voluntary basis, but does so under the auspices of an active war in Southwest Asia, unlike other long term engagements such as World War II and Vietnam, where conscription filled a majority of the ranks. In seeking volunteers, the USAF actively competes against civilian industry and other military services for manpower, increasing the level of difficulty in recruiting motivated and qualified candidates. Finally, recent actions to reduce the USAF by 40,000 personnel in the next two fiscal years (a reduction in end strength of about 11%) create a strain on those all ready serving because the existing operational tempo is not expected to appreciably decline.<sup>1</sup> As existing manpower is relied upon to keep this operational tempo, the retention of personnel in whom the USAF invested heavily through training and equipping will prove to be a challenge. Therefore, investigating shifts in the composition of the USAF population as a whole and within the officer and enlisted force can provide insights in determining whether certain segments (male,



female, White, African-American, etc.) are either being drawn away from, or to military service, and the USAF in particular. In addition, comparisons with the US population can determine if the USAF is reflecting traits common to both, or if there are unique aspects due to military service and the challenges it poses to service members. In the end, it is vital we continue to examine the demographics of both the US and USAF population to be alert to possible changes as they affect recruitment, retention, and consequently how the USAF will posture itself to face the 21<sup>st</sup> century. Therefore, this paper will prove that there are significant demographic shifts and changes taking place within the USAF, and changes may be required in the way it utilizes existing or future manpower.

### ***Demographics***

Demographics, by definition, are the “characteristics of human population and population segments”<sup>2</sup> such as age, gender, race, marital status, and socio-economic background. Demographics are used by a variety of institutions, such as marketers to identify potential customers and for governments to examine population changes within a nation. For instance, city planners can examine the demographics of a certain community and allocate tax revenue for services, isolate emerging needs of population segments such as the elderly, and better understand the political dynamics associated with race, ethnicity or religious affiliation.<sup>3</sup> Demography, on the other hand, is the “study of a population’s size, composition, distribution and in changes in the aspects through time, and causes for these changes.”<sup>4</sup> The two are not interchangeable since demographics apply to the compiling of population statistics, while demography applies to the study and understanding of demographic trends. Although demographics are powerful tools to

describe overall or specific traits of the population, they are, in the end, generalizations in nature and should be seen as just an overall picture of a population or its segment.

Demographic information is typically compiled by two methods, either direct or indirect. Direct methods include conducting census or using questionnaires to gain information from a targeted population, or culling information from public records, such as birth or death certificates, marriage licenses, or land deeds. Indirect methods involve asking persons about vital information on relatives or friends, and then extrapolating conclusions from this data. In its most general form, demographics are aggregated and presented in broad categories such as age, race, or gender and referred to as population composition statistics. These help provide an overall picture or “mental image” of the population being analyzed, and depending on the scope of the effort, can be broken down into sub-categories to provide further detail. For example, in 2005, 49.3% of the US population was male and 50.7% were female, and 80.1 % was white.<sup>5</sup>

While demographics help provide a mental image of the US population as a whole, trending can be an even more powerful tool to discern shifts and help project future needs. Since 1976, the number of people aged 65 and older grew from 23 million to 37.2 million, highlighting the need for increased medical facilities and potential threats to the solvency of Social Security.<sup>6</sup> To help the United States government (USG) collect demographics, the US Census Bureau (USCB) was established in 1902 and made responsible for counting the population and compiling other vital statistics associated with the population.<sup>7</sup> The USCB publishes a yearly abstract to the US national, state, and local governments on the composition of their communities as well as shifts in the geographic placement of individuals, migration, immigration, and racial and ethnic

backgrounds. Within the USAF, the Air Force Personnel Center (AFPC) publishes an exhaustive list of demographic characteristics of potential interest, and includes many of the same categories considered by the USCB. Therefore, it is possible to provide similar comparisons between the two populations. In addition, demographics compiled by the AFPC are available in some categories back to 1976, can be subdivided by officers and enlisted, and include Air Force Specialty Code, source of commissioning, dependents, and place of birth. The result is a database providing a comprehensive demographic picture of the USAF.

### ***Demographics in the Air Force***

With a general understanding of demographics and their availability, logical questions are why and of what value is it to examine demographics as they relate to the USAF. Although the USAF is not interested in redrawing Congressional districts or planning economic zones, demographics can provide information to Air Force leaders on basic characteristics of personnel drawn to military service and used for future force planning and recruitment. For instance, if there were an increasing number of married personnel entering the USAF, it could prompt a study into the need for increased capacity in dependent medical care, support programs for spouses or families, or a need to increase base housing. On a broader scale, demographics such as gender and race can be used to indicate the level of diversity of personnel within the USAF, and track trends within these categories over time.

Understanding the level of diversity of Air Force personnel can be important to senior leaders because of the military's reliance on an all-volunteer force. A draft, while exempting certain elements of society due to age, physical disabilities, or other

exemptions, theoretically draws from every level of society, without regard to race or socio-economic background. With an all-volunteer force, the military is relying on recruiting methods such as bonuses, the promise of college education, medical care, and other intrinsic incentives to entice young men and women to join. If a demographic analysis were to reveal the military is somehow excluding a potential segment of society due to either recruiting methods or other factors, such analysis would reveal an untapped labor pool that could potentially be used to fill critical skills. In addition, a military force that reflects the cultural make-up of the nation it serves may better assimilate personnel from the various segments of society and prevent a “palace guard” type mentality in which members of the Armed Forces feel disconnected from the country they are sworn to defend.

While not a precise analogy, the transfer of key combat and combat support skills to the Reserves and National Guard by then-US Army Chief of Staff Creighton Abrams in 1974 offer some insight into the importance of having the support of the American public for military operations. Implemented in 1974, General Abrams sought to prevent the nation from going to war like it did Vietnam, where it fought largely with active duty components only and did not mobilize the “citizen-soldiers”. His intentional result of the mobilization of Reserve and Guard components was to bring the impact of fighting a war to a larger segment of the American public, increase the costs and risks to national political leaders due to the social and economic disruption caused by this activation, and would ensure that they did not commit to a course of action that was less than in the nation’s vital interest.<sup>8</sup>

Another area to consider is potential demographic gaps between the officer and enlisted corps. While officers and enlisted members are drawn from the same general populace, entry level demands for each segment are significantly different. Officers are required to have college degrees while enlisted members need only a high school diploma or its equivalency. This educational requirement can at least partially exclude a certain socio-economic class of citizens because of their inability to afford or attain a four-year college degree. The annual cost of one year of college at a public university was over \$6,000 for 2007-2008, up 6.6% from the previous year and puts the cost of a 4-year degree at over \$25,000. The cost of a private school was even more daunting at over \$23,000 a year, making the total cost at the end of four years of college at almost \$100,000.<sup>9</sup>

While the enlisted force in the USAF is highly educated and the services offer various programs for its members to reach an undergraduate degree, generally officers have more formal education than enlisted. For instance, over 96% of officers have at least a 4-year degree, while less than 6% of the enlisted force has one.<sup>10</sup> As a result, this educational requirement limits those who can enter the officer corps and lends itself to drawing from a more affluent level of American society because of the aforementioned costs associated with a 4-year degree. This exclusion applies to both genders and all races, but can inhibit even more the absorption of recruits from African-American or Hispanic backgrounds because both groups have a higher proportion of lower income families than whites. The median income in current year 2005 dollars of white households was \$48,554, while it was only \$30,858 for African-Americans and \$35,967 for Hispanics.<sup>11</sup> In addition, less than 60% of Hispanics in the United States currently

earn their high school diploma,<sup>12</sup> but are fastest growing segment of society and now outnumber African-Americans as a percentage of the entire population, and yet due to educational requirements (and shown in more detail later), they are under-represented in the officer and enlisted ranks. Given these barriers to entry for certain segments of American society, the remainder of this essay will seek to explore further the current composition of the officer and enlisted corps and the USAF's ability to keep track with America's changing demographics.

## **Demographics and Definitions**

A discussion on the demographics must first be preceded by a listing of categories to be measured, how these categories will be measured, category definition, and the reasons why they were chosen. Some categories, such as gender and marital status are relatively self-explanatory, yet categories such as race/ethnicity have changed in recent years and a need detailed explanation. In addition, while kept to a minimum during this research effort, some assumptions had to be made and will be outlined in full.

### *Category Definition*

As mentioned earlier, the USCB and AFPC collect a wide range of information that can be collated to produce a representation of their respective populations. Due to the scope of this essay, four major categories will be measured and trends examined to discern major division lines that exist between the US and Air Force populations. These four categories are gender, race/ethnicity, race/ethnicity by gender, and marital status. The first, gender, is self-explanatory and will measure the percentage of men and women in each segment of the population. The second category, race/ethnicity (i.e., White, African-American, etc.) requires a much more detailed level of discussion due to definitions and the changing nature of their definitions since 1990 and will be clarified in a segment below. The third category will be race/ethnicity by gender and is simply a measurement of populations by race/ethnicity, then by gender; for example, African-American males. The fourth category is marital status, and is measured by the number of personnel as married, single (never married), divorced, and further sub-divided by

gender. Due to the scope of this research, marital status by race/ethnicity was not explored.

#### *Race/Ethnic Background Definition*

The category of race/ethnic background is one of the three primary demographic categories (besides age and gender) measured by the US Census Bureau and AFPC. It represents major fault lines within a population that can lead one to infer a great deal about a sub-population's level of assimilation within a larger society from various backgrounds. Since the 2000 US Census, the Office of Management and Budget required all US Federal agencies to track five categories with regards to race: White, Black or African-American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander.<sup>13</sup> A sixth category, labeled as "Some Other Race" is for respondents of the Census who would not categorize themselves among the other five choices or prefer to write-in their chosen race. For respondents who check two or more races, they are designated in a separate class labeled two or more races. For the purposes of this essay, only demographics related to respondents who labeled themselves as "One Race only" in White and African –American categories will be considered because they represent 94% of both the US and USAF populations.

#### *Definition of Hispanic Background*

The current USCB policy is to treat the category of Hispanic origin as an ethnicity separate from race<sup>14</sup>. For a technical definition of the term Hispanic, the Department of Defense (DoD) uses DoD Directive 1350.2, which says: "a person of Hispanic background is defined having origins in any of the original peoples of Mexico, Puerto Rico, Cuba or South America, or other Spanish cultures, regardless of race".<sup>15</sup> To further



clarify, people can be Hispanic, but of any race and people in a race group (i.e., white, African-American, etc.) can either be Hispanic or Not Hispanic. This characterization changed in 2000, but only as it was removed from the category of race and shown as one of ethnicity. The Air Force also measures Hispanics in this way, and therefore, trending across years and between US and USAF populations is possible<sup>16</sup>.

Since the USAF is a US Federal Agency, it measures the same categories as the US Census Bureau and comparisons of like groups is possible. However, the USAF does not have accessible statistics in the race and ethnicity categories prior to 1994, so no comparisons are possible prior to those dates. In addition, prior to 1990, the US measured race and ethnic categories differently, so any comparison prior to those years would be of limited utility.<sup>17</sup>

#### *How Populations Were Measured*

The age groups to be measured between the US population and USAF were not precisely aligned. For instance, 99.9% of the personnel in the USAF range in age from 18 to 52 yet the USB Statistical Abstracts count all ages. Therefore, the US Census Bureau's measurement of populations had to be equalized as closely as possible with the age range group of personnel in military service using existing categories, and as a result, the closest range measured by the USB is the 18 – 55 age groups. While not exactly the same, this measurement provides a very close range so as to allow comparisons and was used when practical. Furthermore, measuring characteristics in each group was conducted in two distinct ways. First, the characteristic was measured with respect to the *entire* population, and then *within* its own population. To illustrate, if in a population of 100, there were 70 men and 30 women, the population would be said to be 70% male. If

an examination of those 70 men was further expanded and revealed that 40 were white, 20 were African-American and 10 were Hispanic, this would mean that the *entire* population would be then classified as 40% white men (40/100), while *within* the population, 57.1% of men (40/70) were white. This expansion within populations can further refine the growth of minorities relative to the entire population, as well within sub-groups such as gender.

#### *Why Categories Were Chosen*

While some of the reasons for picking the categories to measure in this essay may be self-evident, the rationale for selection of each category bears mentioning. A major factor in category selection was their availability in pre-existing databases managed by the USBC Statistical Abstracts and AFPC. Both entities compile hundreds of separate categories and can be cross-referenced and further sub-divided, creating thousands of demographic permutations. Due to the size and scope of this research, the four aforementioned categories were selected because they are common, easily recognizable and definable to a reasonable person, and require little explanation. In addition, the categories represent major segments of society to which people claim representation, i.e., “I am an African-American” and as a result, can identify more clearly with the outcomes of demography.

#### *Assumptions*

While the intent of the writer is to hold assumptions to a minimum, some must be made to pursue the end result. First, in an effort such as this, mathematical errors are possible. To minimize these, data was checked and trended to examine “spikes” or other indicators of outliers. While this eliminated a majority of data entry mistakes, it is

possible some remain but are of sufficient insignificantly and would not invalidate any conclusions drawn from the data. Secondly, respondents of USCB surveys can simply ignore directions and answer questions incorrectly on their personal demographics deliberately or by mistake, thereby potentially skewing some categories. However, the USCB vetted any potentially serious erroneous information, using commonly applied statistical methods to arrive at their data, and any mistakes that remain are of little consequence to the total number.<sup>18</sup> Likewise, the database used by AFPC is subject to the same types of mistakes as the USBC, but the assumption, again, is that the Air Force has examined the data for any potential discrepancies and any that remain are too small to influence the final measurements and would not influence or corrupt the inferences drawn from them.

## **Data Presentation**

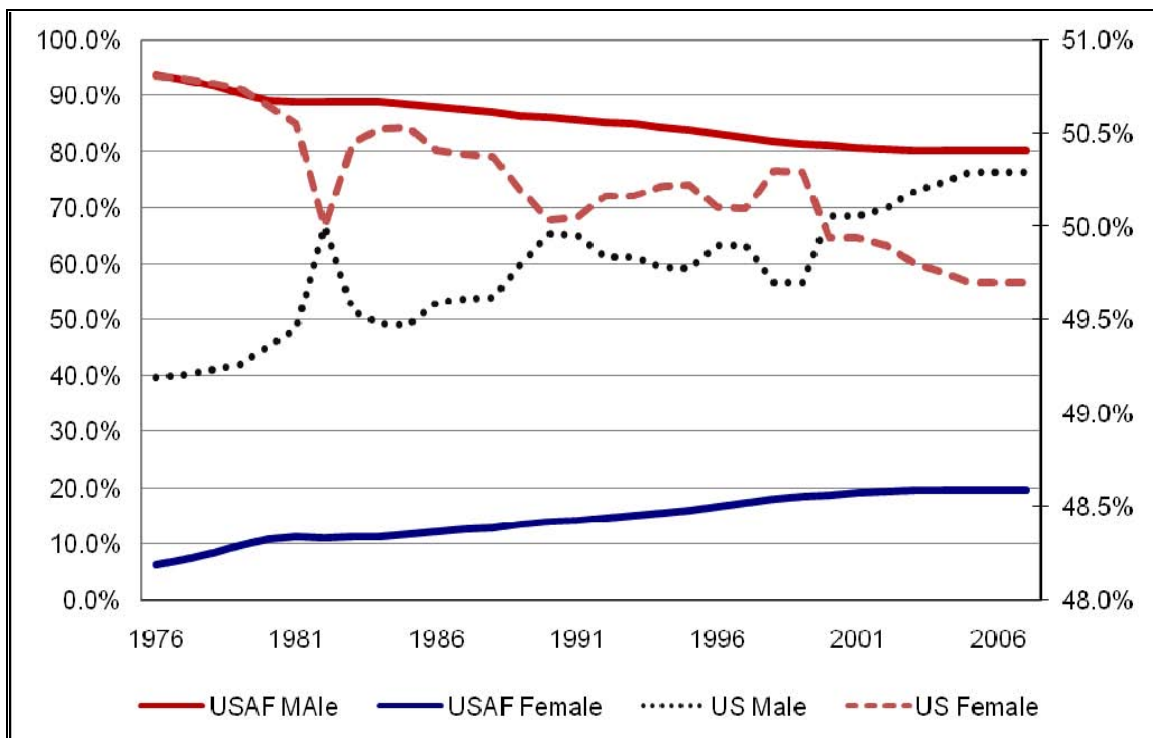
The aim of this section is to present demographics associated with the USAF and US demographics to identify trends and shifts within their respective populations. The sequencing of presentation will begin with gender and race/ethnicity because these are broad categories and will allow a point of departure for further refinement. Each of these categories will be measured for three USAF populations: the entire service, officers, and enlisted. When applicable for comparison purposes, the US population as a whole will also be displayed. The next sequence will sub-divide race/ethnicity by gender to enhance the understanding of shifts or trends within race/ethnicity and will similarly display the three USAF populations (total force, officer, and enlisted). This study does not use charts for the US population for race/ethnicity by gender, but US population demographic information is provided as it pertained to trends and shifts within USAF populations.

The final portion of this section will present trends in the marital status of USAF personnel (for both males and females), and likewise will be shown for the three USAF populations. Again, US population demographics were not displayed, but information was presented as it related to USAF trends and shifts in marital status.

The intent of this data presentation is to identify and document demographic trends and shifts within the USAF population and how they relate to the US population in the aforementioned categories. With this information, certain conclusions can be made on how effectively the USAF is recruiting and retaining population segments, and if any changes may be needed in how it utilizes existing or future manpower.

## Gender

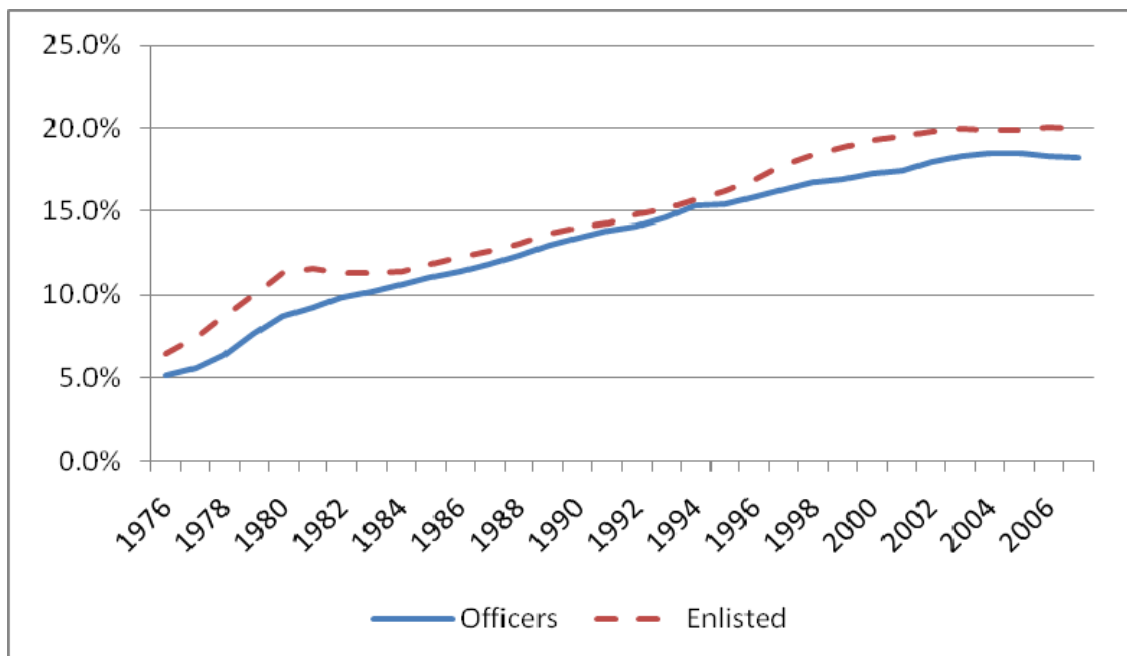
In Figure 1, the gender distribution of the US population as whole and the USAF in particular are plotted. As can be seen, the US population generally hovers around a 50/50 split between male and females, with some years showing male and female populations “taking turns” over 50%.<sup>19</sup> On the other hand, the USAF gender split has narrowed from 94% male and 6% female in 1976 to 80% male and 20% female by the end of Fiscal Year 2007.



**Figure 1 Gender Demographics<sup>20</sup>**

A closer look of the total USAF population by gender shows the rate of growth for women in the officer and enlisted corps are roughly equal (see Figure 2) over the same time frame. Female representation in both segments more than tripled in the 31 year span measured. However, while the rise thru the 1980's and 1990's was consistently upwards, the last five years have shown very little real growth for females in terms of the

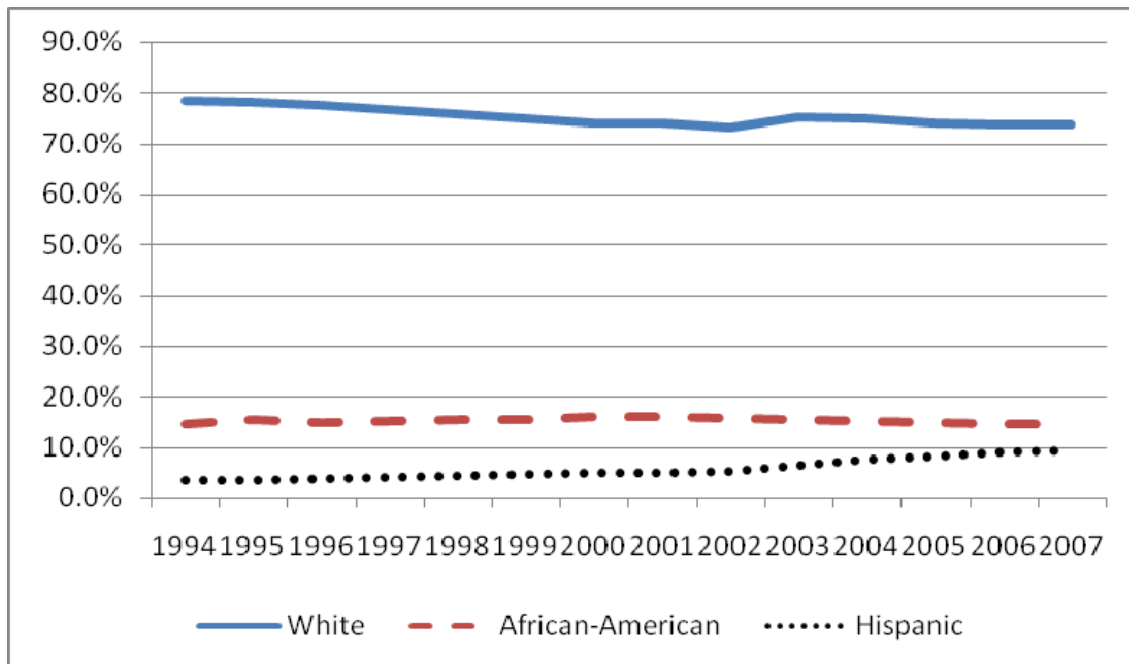
overall population, with the female representation in the officers corps holding steady at about 18% and in the enlisted force near 20%. The rise in the 1980's and 1990's can largely be attributed to the opening to women of more roles in the military, and a reflection of American society coming to terms with more women in this workplace. However, in the last five years there was overall relatively no growth in the number of women in the USAF and within the officer corps we see a small decline.



**Figure 2 Percentage of Officer and Enlisted Females**

### **Race/Ethnic Background**

Figure 3 shows the overall USAF population with respect to race and ethnic background since 1994. Overall, the percentage of whites inside the USAF dropped from 78.4% in 1994 to 73.7% in 2007. While the representation of African-American is equal to where it was in 1994, it showed modest up turns in 2000 and 2001 to over 16%, and then fell back to its current level of 14.7%. In addition, while not experiencing any real growth, the percentage of African-Americans in the USAF still is larger than the overall US percentage, which stands at 12.6% in the eligible year groups for military service.

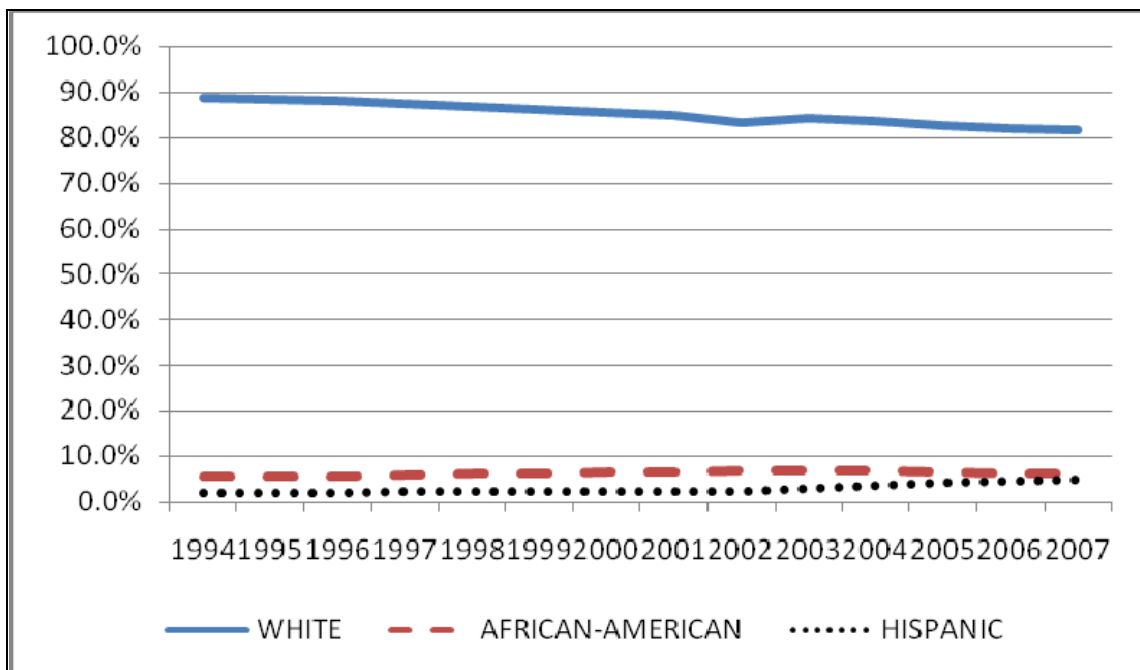


**Figure 3 - USAF White, African-American and Hispanic Populations**

Another key finding is the rapid growth of personnel who claim Hispanic heritage. As a reminder, the category of Hispanic is not deemed a race, but an ethnic background, and persons of any race can be of Hispanic ethnicity. With this in mind, the percentages of personnel who claim a Hispanic heritage in the USAF grew from 3.6% in 1994 to over 9% in 2007, the largest growth of any population. This also reflects the growth of Hispanics inside the US population where since 2001 they eclipsed African-Americans as a larger percentage of the US population.<sup>21</sup> The rise of Hispanics can be partially attributed to the addition of Hispanics as a category of ethnicity, where previously one could only select one category of race (i.e., African-American, White, Hispanic, etc.) but not one of race *and* ethnicity. Since 2003, individuals have the option of selecting their race and then adding ethnicity, and as a result, people who saw themselves as Hispanic before 2003 but elected not to select this category due to seeing

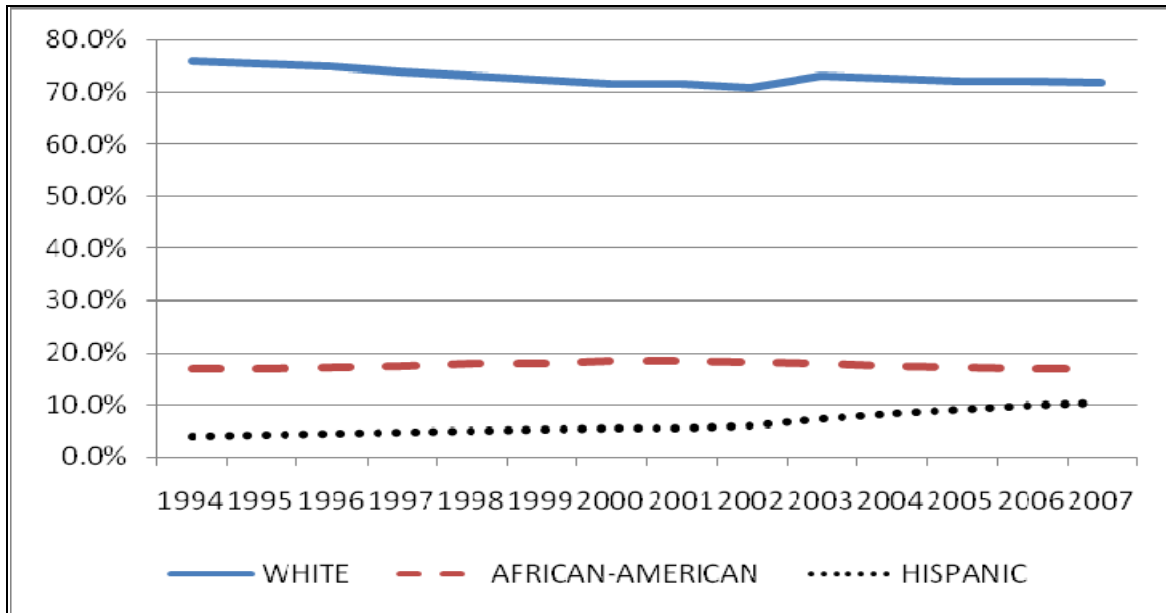
themselves as more of a race (i.e., White) than Hispanic now had the opportunity to select both. In discussions with AFPC demographic personnel, the addition of Hispanics as a stand alone ethnicity had a negligible impact on the overall growth of Hispanics in the USAF.<sup>22</sup>

With respect to the representation of race/ethnicity within the officer and enlisted corps, the vast majority of the officer corps (81.7%) is still white, though down from 88.6% in 1994. African-Americans represent only 6.1% of the officer corps, a small increase from 1994, and a figure that still lags far behind the number of African-Americans in the overall US population at 12.9%. Hispanic growth in the officer corps has been steady, growing from only 1.9% in 1994 to 4.7% percent in 2007, and on its current pace, will eclipse the representation of African-American in the officers corps in the next decade. However, Hispanic representation in the USAF still lags the percentage in the overall US population, where it now represents over 15% of the US population.



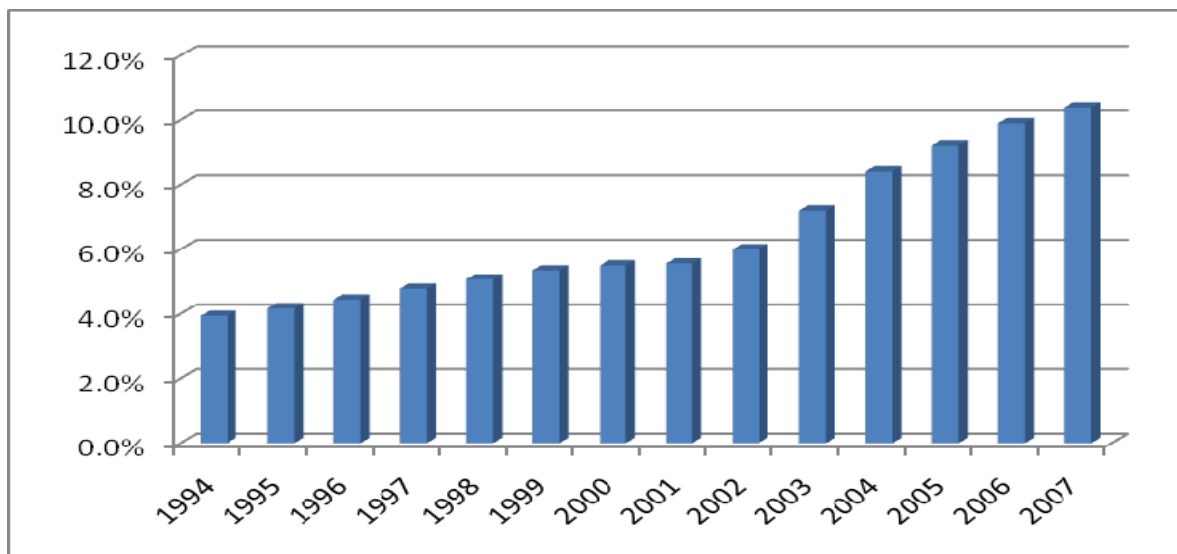
**Figure 4 USAF Officer White, African-American and Hispanic Populations**





**Figure 5 USAF Enlisted White, African-American, and Hispanic Populations**

The enlisted force mirrors that of the officer corps with respect to trends since 1994. Whites are now 71.1% of the enlisted force, down from 76% in 1994, and African-American remained steady at 16.8%. Although there was an upturn in African-American representation in between 1998 and 2001, reaching a height of 18.5%, the numbers returned to 1994 levels this year.

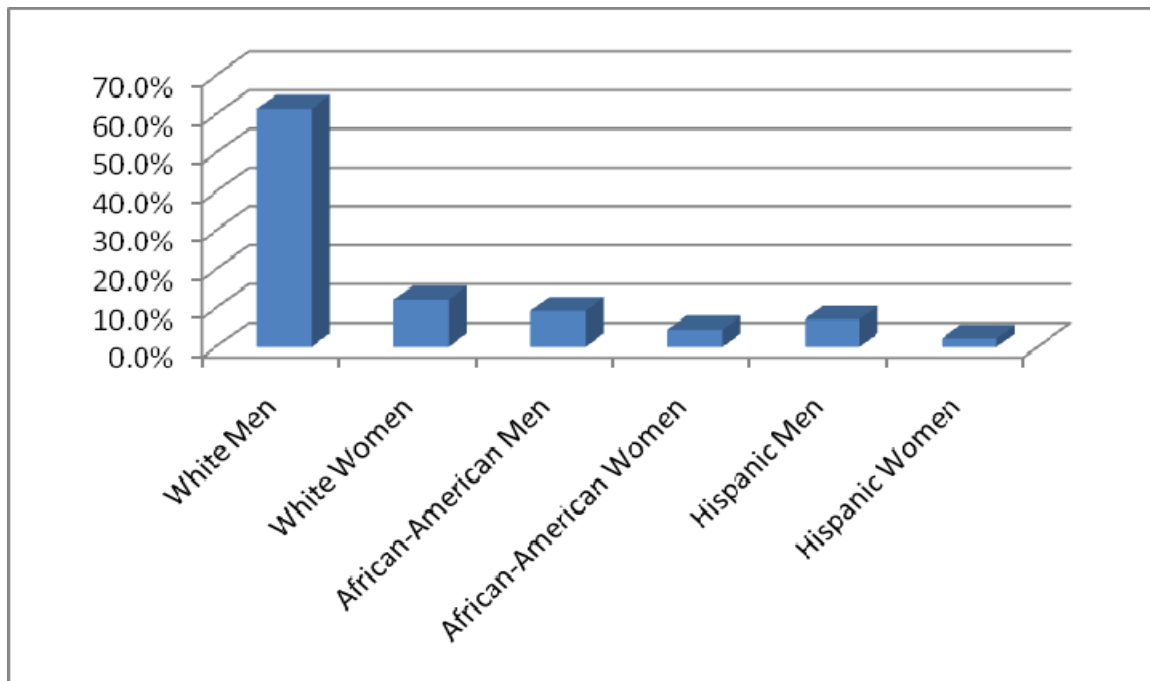


**Figure 6 USAF Enlisted Hispanic Representation**

As Figure 6 illustrates, Hispanics are now represented almost three times as much now as they were in 1994, and like the officer corps, will eclipse African-American as the ranking minority sometime in the next decade at its current growth.

### **Race/Ethnic Background by Gender**

Another dimension to be considered with respect to race/ethnicity is further subdividing by gender. In other words, this category will measure the number of males and females along with their race/ethnicity, and can further expand on the trends seen above. As mentioned before, whites are currently the largest category within the USAF at 73.7%, consistent with the US population at large. As a subset of whites, white men lead the population in the USAF, representing 61.5% of the entire force (Figure 7), a figure that has dropped almost 6 percent since 1994. The next largest category is white women, at 12.2%, an increase of one percentage point since 1994. Interestingly, the representation of African-American males as a total of the USAF population has actually declined by over one percentage point since 1994, reaching 10.2% in 2007, but African-American women have increased their representation from 3.3% to 4.5% in the same time period. Continuing with the trends seen before in the Hispanic population, the number of Hispanic males in the USAF more than doubled, rising from 3.0% to over 7%, and Hispanic females have jumped from a negligible .5% in 1994 to 2.2% in 2007. Although the representation of female Hispanics is still small, this does reflect a growing trend overall in the Hispanic population within the USAF.



**Figure 7 USAF Population by Race and Gender**

With respect to the officer corps, the same race/ethnicity and gender categories that are most represented in the entire USAF population are identical for the officer population – white men, white women, and African-American men.

Within the enlisted force, some shifts have occurred since 1994. Although white men are still the largest category in the enlisted force, white women in 2007 have surpassed black males as the second largest category. In 1994, African-American men represented 13% of the enlisted force and white women were 11.8%; white women now represent over 12% of the enlisted force, and African-American men have dropped to 10.7%. In addition, African-American women have increased their representation in the enlisted force from 3.9% to 5.1%. Sharing this trend is Hispanic women who have doubled their representation from under 1% to 2.5%. Although the overall representation

by Hispanic and African-American women inside the USAF is still low, the trend lines reflect increasing amount of minority women in the USAF.

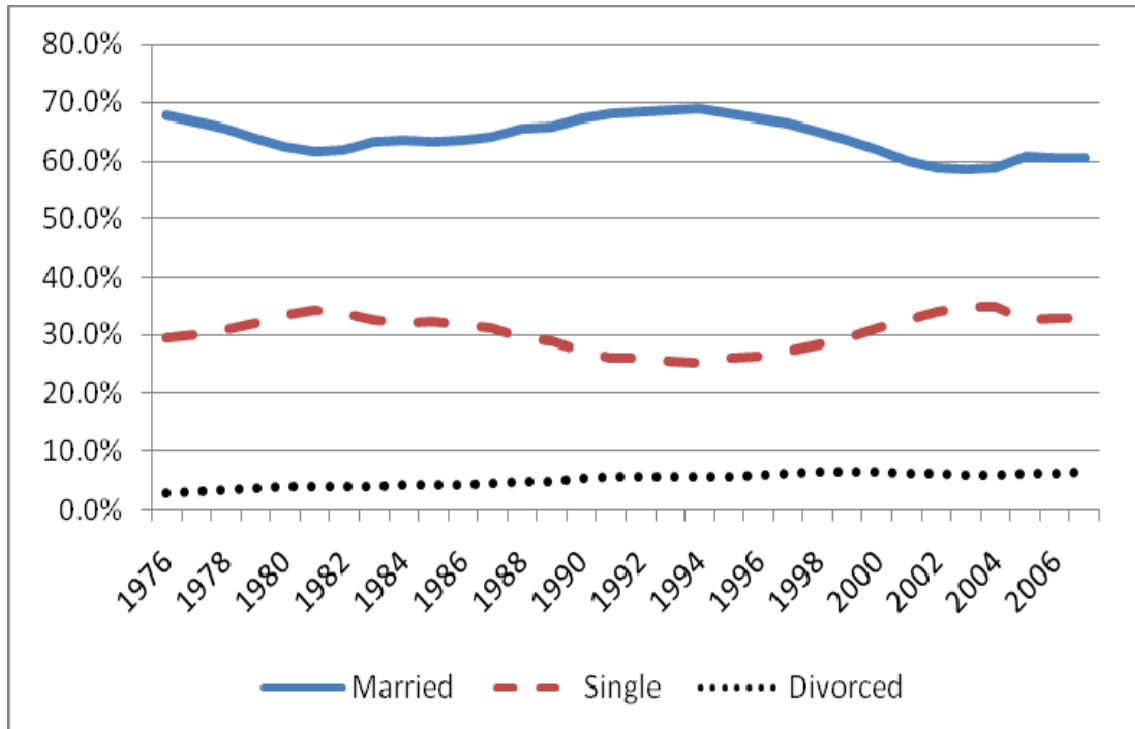
### **Marital Status**

The final category to be examined will be marital status, with three different areas measured – married, single (never married) and divorced. Discerning the level of marital status is an important element within the military for two reasons. First, married military members require the USAF to obtain and provide various resources, such as base housing, additional income in the form of housing allowances, and health care. Secondly, at a basic level, married life inherently brings with it more responsibility for service members and therefore an implied level of stability into an individual's life. In general, happily married people are more financially responsible, emotionally stable, and mature than their single counterparts, along with being generally healthier and living longer.<sup>23</sup>

While marriage is not a pre-requisite for military duty, married personnel are seen to possess a level of stability that is highly desired, especially in the upper ranks of the officer and enlisted force. However, married military members also face unique circumstances over the course of their careers such as deployments to combat zones, remote tours, and frequent permanent change of station moves that can induce stress into a marriage. This stress can manifest itself in several ways, but one indicator is the number of divorces. A rise in the number of divorcees can indicate that the hardships of being married while in the military can be too much to endure and instead of leaving the service, military members elect to divorce their spouse. While this option of divorcing their spouse may provide short term resolutions, it can create second and third order

effects, such as single parents, financial hardships, and other issues that must be dealt with by divorcees. All or some can end up inducing more stress into the service person's life, when the original intent was to reduce obtaining a divorce.

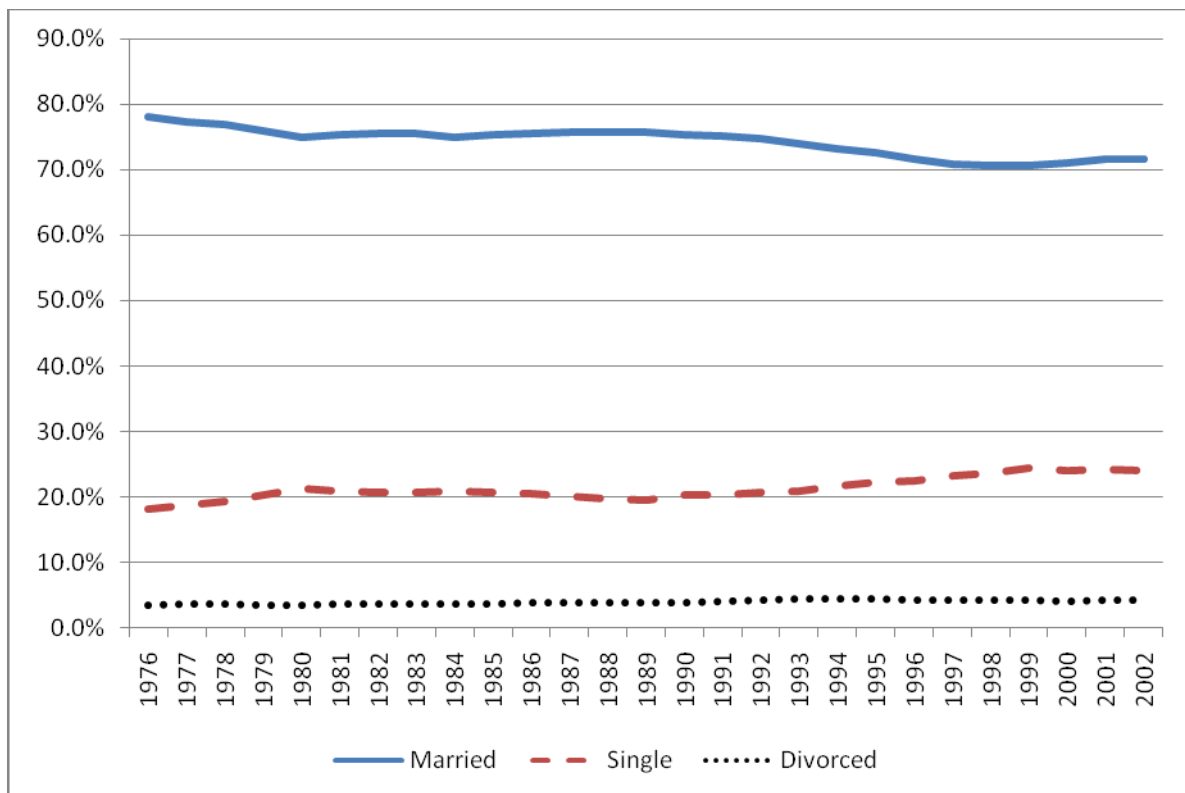
For the USAF as a whole, the percentage of personnel who are married has slowly declined since 1976 (Figure 8).



**Figure 8 USAF Marital Status**

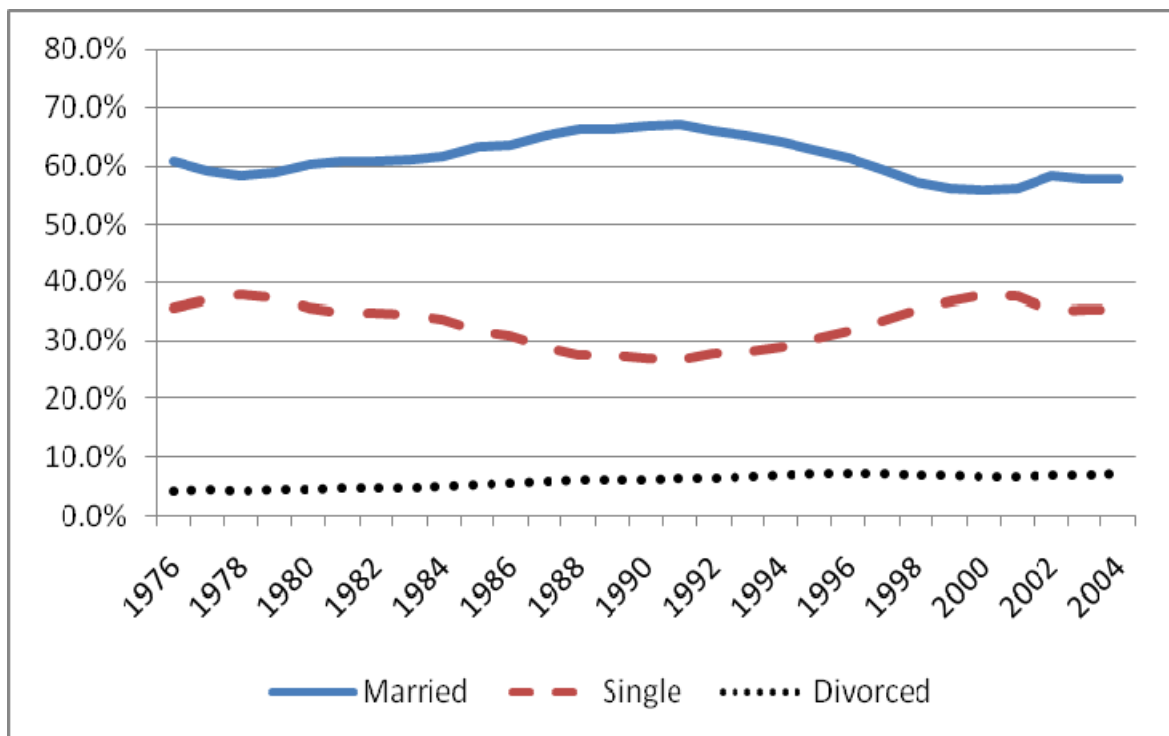
Although the percentage of the force composed of married personnel rebounded in the late 1980's and 1990's, it has shown a steady decline from a high of 68.7% in 1994 to 60.5% in 2007. Conversely, the percentage of single people increased and divorcees have more than doubled, from 2.9% in 1976 to 6.5% in 2007. Although this reflects the growing number of divorcees in America, which grew from 6% in 1980 to 10% in 2005, the percentage of divorcees in the USAF remain lower than the US as a whole.<sup>24</sup>

For the officers corps (Figure 9), the percentage of married officers has also steadily declined since 1976, from 82.4% to 71.6%. What is of particular note is the significant reduction in the gap between the number of married and single officers. In 1976, 82.4% of officers were married, while only 14.5% were single, a difference of 67.6 percentage points. However, by 2007, 71.5% of officers were married and 24.1% were single, and a drop of 20 percentage points. This represents a shift away from married life in the officer corps.<sup>25</sup> Meanwhile, the percentage of officer divorcees increased from 2.6% to 4.2% from 1976 to 2007, and although this reflects the trend in the overall USAF population, it still is less than half that of the US population which stood at 10.6% in 2006.<sup>26</sup>



**Figure 9 Officer Marital Status**

The enlisted force (Figure 10) also mirrors the marital trend within the officers corps and the USAF as a whole. A larger percentage of the enlisted force than the officer corps is single (35.1%) due in large part to lower age. Most new enlistees in the Air Force are younger than their officer counterparts, are directly out of high school, still reside at home upon their entry in the USAF, and thus, opportunities for marriage are less than for officers.



**Figure 10 Enlisted Marital Status**

While the trend of single enlisted personnel is cyclical in nature, it returns to an average of 30-35%. On the other hand, the officer corps has seen a steady increase in the number of single personnel, climbing from 14.8% in 1976 to 24.1% in 2007. Turning to divorce in the enlisted force, the number of divorced personnel is higher than the officer corps with over 7% of the enlisted force divorced, as compared to 4.2% in the officer corps.<sup>27</sup>

### Marital Status by Gender

Since demographics for marital status by gender is not available before 1994, this paper will examine only information after that time. As seen in Figure 11, an interesting dynamic within the USAF is the number of women divorcees (11.9%) is more than twice that of men (5.2%) and increasing steadily since 2004. While female divorcees outnumbering male divorcees is consistent with the US population as whole (11.6% of females and 9.1% of males are divorcees in the US in 2006)<sup>28</sup>, the sizeable difference within the USAF between males and females is worthy of note in both the overall amount and the percentage difference between the two groups.

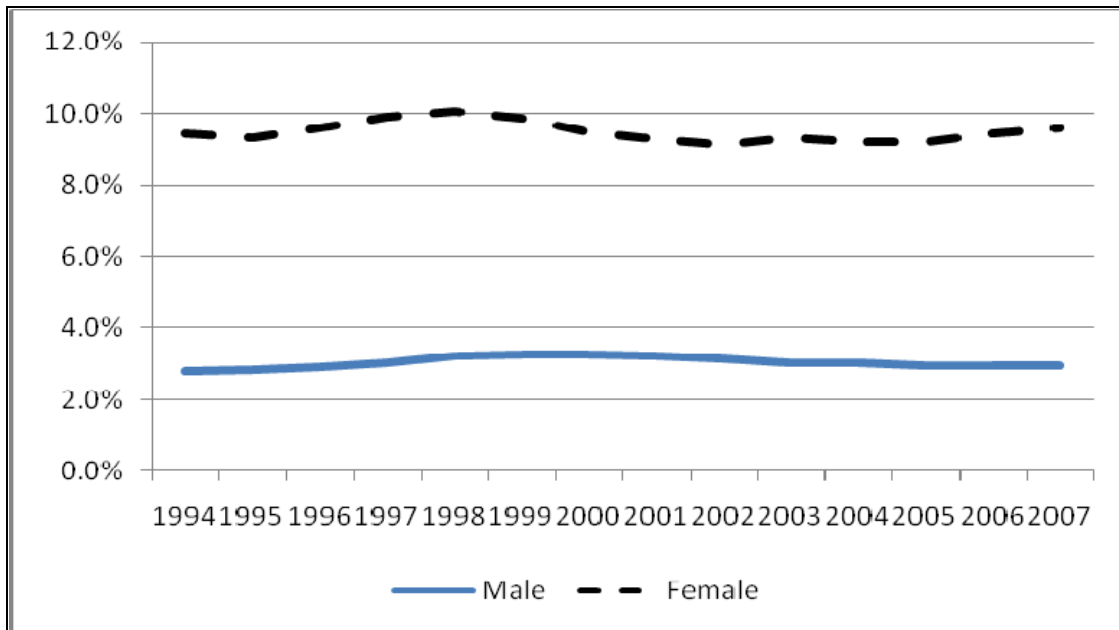


**Figure 11 USAF Male and Female Divorcees**

This aspect of divorcees also holds true in the officers corps, where the difference between female and male divorcees is even more marked (Figure 12). First, only 2.9% of men in the officers corps are divorcees, compared to 9.6% for females. Secondly, this

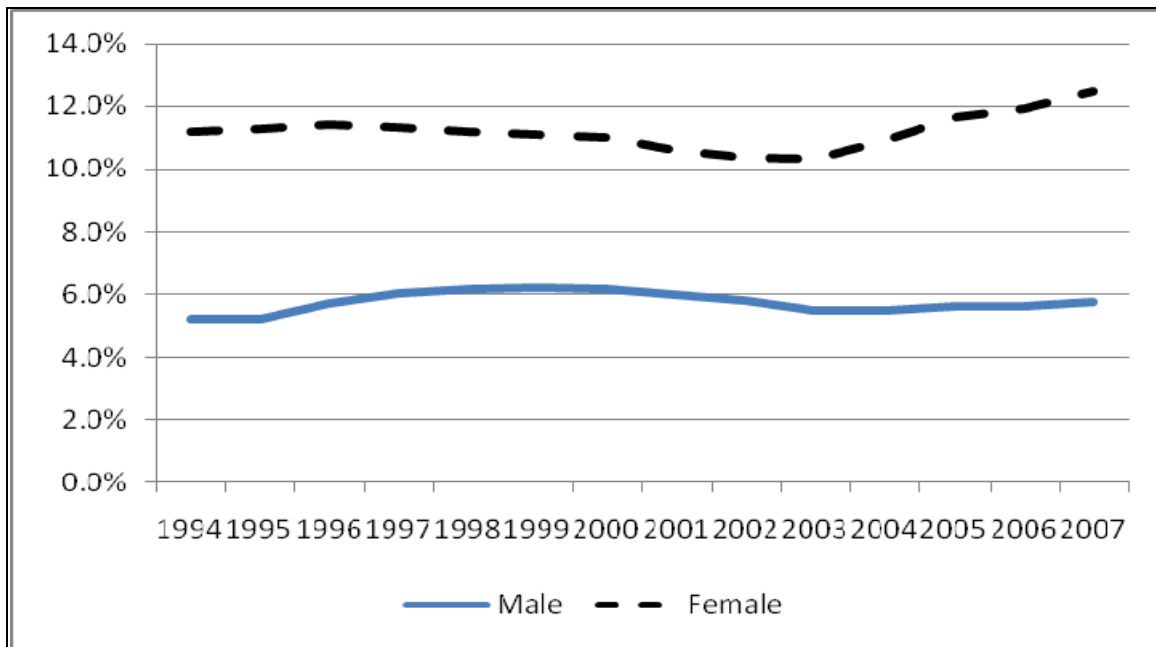


difference in the amount of male and females divorcees is consistent since 1994, showing that this is more than just a passing trend.



**Figure 12 USAF Officer Divorcees**

For the enlisted force, the difference between female and male divorcees is almost as pronounced, where 12.5% of females are divorced, as compared to 5.7% of men (Figure 13).



**Figure 13 USAF Enlisted Divorcees**

Finally, this is also consistent over time, with the percentage of female divorcees increasing since 1994 while the percentage of male divorcees has essentially stayed the same. The aspects of divorcees will be discussed further later in this paper, but in summary, these trends show common traits in the relationship between female and male marital status in the USAF officer and enlisted force.

## **Analyzing the Trends**

As the USAF enters its 62<sup>nd</sup> year, it faces a myriad of challenges in maintaining a workforce adequate to meet the current pace of operations. Starting in Fiscal Year 2007 and ending in 2009, the USAF will draw down its active duty force by 40,000 personnel to pay for the procurement of new weapon systems<sup>29</sup>. Despite this reduction in force, the pace of operations for the USAF will remain constant as it will continue to support the Global War on Terrorism (GWOT) and operations in Iraq and Afghanistan, with no foreseeable reduction in commitments to those engagements. In addition, the USAF must continue to train and equip the force in order to engage in possible high-intensity combat operations with current adversaries such as North Korea, and possible future ones such as China. As a result, this range of military operations must be fully executed with a smaller force that must be more mobile, technologically savvy to use increasingly sophisticated weaponry, and competent in all phases of combat and post-combat operations. To sustain itself, the USAF must continue to recruit qualified candidates to serve in its ranks, and as importantly, retain individuals with special skill sets, despite extended absences from home and the lure of jobs in the civilian sector which can pay significantly more than the military.

While the demands of military service and the competition for qualified individuals between the civilian and military sectors have always existed, the situation today is more pressing. Since there is no draft as there was in Vietnam, Korea, and World War II, the military is relying on an on-volunteer force during a period of active war, one that has no foreseeable end. These on-going operations where long absences and

hazardous duty are more routine and make the attraction of new recruits more problematic than in the past. Against this backdrop, the examination of demographic trends can indicate possible areas of concern, such as the reduction in representation by racial/ethnic categories, indicators of a stressed force such as the number of divorcees, or similar trends. The chart below is an aid in analyzing these overall trends.

Category	USAF Population	Officer	Enlisted
Gender	Number of females tripled since 1976, but steady for the last 5 years	Same	Same
Race	Whites – decreasing African-American – steady Hispanics - rising	Whites – Decreasing African- Americans – slight decrease Hispanics - rising	Whites – decreasing African-Americans – Steady Hispanics - rising
Gender and Race	White Men – decreasing White Females – increasing Black males – decreasing Black Females – increasing Hispanic Males – increasing Hispanic Females - increasing	Same Steady Steady Same Same Same	Same Increasing Decreasing Same Same Same
Marital Status	Fewer married More single More divorced Twice as many divorced women as men	Same Same Same Three times as many divorced women as men	Same Same Same Twice as many divorced women as men

**Table 1 USAF Demographic Trends**

## **Gender**

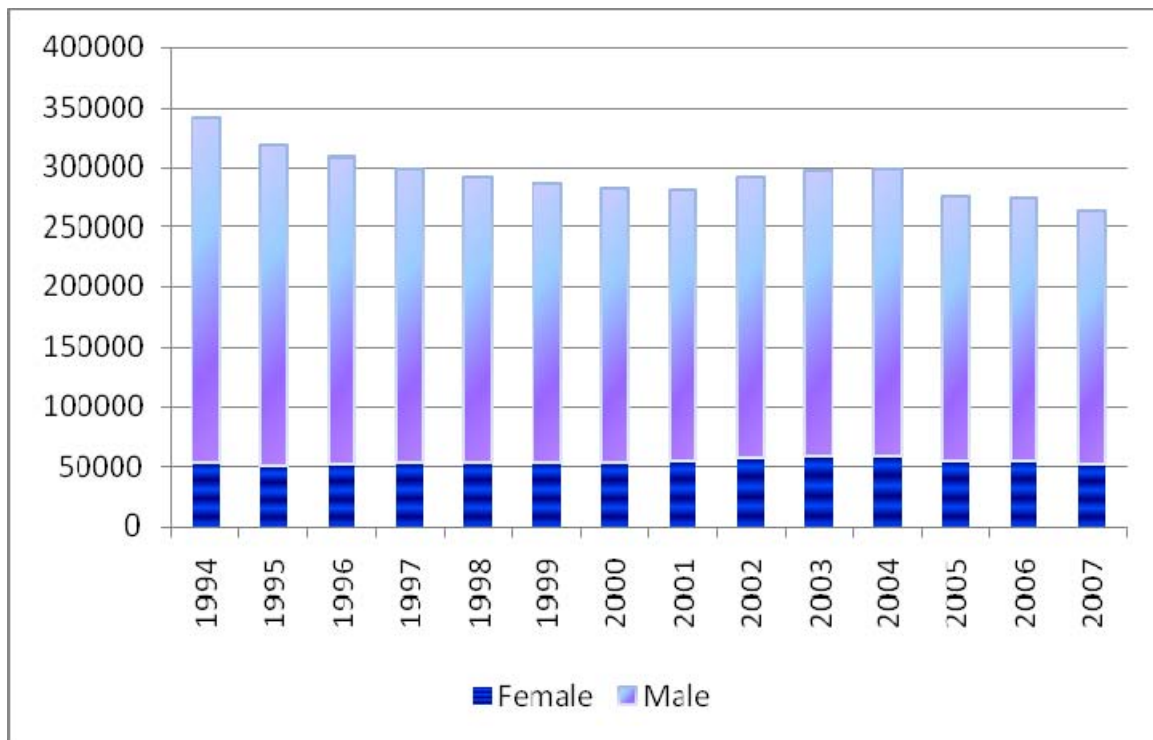
The overall USAF population has seen significant shifts in its demographics since 1976. In the gender category, females now represent almost 20% of the service's total population, and female representation in the USAF is the highest of any branch of the US military.<sup>30</sup> In addition, this growth has been sustained and female representation increased almost every year until 2003, where it reached its current level. The reasons

for this growth can be seen as a reflection of overall trends in the expanding role of women in American society. For instance, in 1970, 43.3% of women 16 and over were in the work force, rising to 59.8% in 1998, and this number is projected to reach over 61% by 2015.<sup>31</sup> In addition, the number of married couples where both males and females work (dual income) rose from 39 to 61 percent from 1970 to 1993.<sup>32</sup> Finally, the expanding number of roles for women in the military added to this momentum. While women have had a long and distinguished history in the US Armed Forces, they were prevented from participating directly in combat operations until 1992 when Congress repealed the limitation on women operating combat aircraft.<sup>33</sup> Since then, Congress has repealed other restrictions for women, and while not all-inclusive, the vast majority of positions in the US Armed Forces are open to women.<sup>34</sup>

Despite this climate of expanded participation, the percentage of women in the USAF has not increased since 2003, leveling out at 20% of both the officer and enlisted corps. A trend of this nature is not without precedent, when, in the early 1980's, representation by women stabilized at 11%, but then began to increase again and continued until it reached its current levels. No data existed to analyze this trend 25 years ago, but an examination of current available demographic data does not indicate a "glass ceiling" where women may conclude they cannot advance in rank with their male counterparts. In 1994, only 4.9% of all the Chief Master Sergeants and 4.5% of Colonels were female but by 2007, 11% of Chiefs and 12.2% of all Colonels were women. Therefore, in only 13 years, the USAF had more than doubled the percentage of female senior NCOs and officers within its ranks. In addition, from 1994 to 2007, the enlisted force dropped by a total of 77,944 people, with men accounting for 98.9% of that

reduction. While men outnumbered women in the enlisted force by an average of 5 to 1 from 1994 to 2007, it is logical to conclude a majority people affected by the reduction in force would be men. However, in reality almost the entire reduction in the service's end-strength came from enlisted men and total number of enlisted females in 2007 was virtually identical to its 1994 level.

Figure 14 shows the end strength numbers for male and females every year from 1994 to 2007. While the chart shows that female enlisted end strength stayed roughly the same size at approximately 50,000 from 1994 – 2007, since the total force numbers dropped, their percentage of representation with respect to the entire enlisted force actually went up.



**Figure 14 Male and Female USAF Enlisted End Strength 1994 - 2007**

Meanwhile, a shift took place for enlisted females within the USAF where women increased in number in the ranks from E-5 to E-9 ranks by 33%, with a corresponding decrease in the junior grades of E-4 and below by virtually the same amount. As a result, fewer and fewer women are entering the USAF while the ones who entered in the mid 1990's are staying and attaining higher rank. By contrast, the male representation in the reduction in force from 1994 to 2007 was more evenly distributed throughout all the ranks. In the end, without a major influx of women in the next few years, it can be expected that female representation will decline in the future years as more senior officer and NCOs reach retirement or separate from the service and there are fewer and fewer females to fill in the ranks behind them.

A similar scenario exists in the officer corps with respect to the overall reduction in males. Since 1994, the officer corps has been reduced by 15,272 (19%), with only 3% of that number representing women despite females composing almost 20% of the total officer corps from 1994 – 2007. With respect to the ranks of Captain and below, the number of females is 30% lower than of 1994, while in the field grade ranks, there were 30% more females in 2007 than in 1994, again showing the continued advancement of women through the ranks of the USAF. While the demographic shifts here are not as stark as that in the enlisted force, the reduction of females in the lower ranks shows that there is a downward trend approaching with respect to females in the overall force, as field grade female officers move forward and retire or separate, with fewer and fewer females to backfill them. In the end, the USAF must watch this trend carefully and identify the reasons for the lack of women in its junior ranks.

There are potential adverse impacts for less representation of women in the USAF. While the USAF continues to meet its recruiting goals, the ability to retain officers is vital to its mission. The highly technical nature of the USAF mission means it can take years to develop a fully qualified officer or enlistee to backfill each female that separates from the service. To reiterate the opening thesis, it is vital that the USAF continues to examine demographic shifts for clues on any adverse trends in the retention of qualified and motivated servicemembers so as to preserve capability and forgo the loss of these individuals who cannot be easily replaced. No clear reason exists for the trend in the leveling off of female representation in the USAF, but one possible reason is increasing strain of continued operations in support of the GWOT.

Corresponding to the leveling off of women in the USAF is the growing number of female divorcees, which stands at 11.9% and has risen every year since 2003 when it stood at 10.1%. By contrast, only 5.2% of men are divorcees and this is almost the same as it was in 2003. While ascertaining the exact reasons for this rise in female divorcees is beyond the scope of this essay, it merits watching to see if it continues, if it is linked to the drop in the number of females in the junior ranks, and what the USAF can do to arrest that trend.

### **Race/Ethnicity Background**

Turning to race/ethnicity, the USAF continues to diversify in terms of minorities, with the biggest gains made by Hispanics, reflective of gains in the US population as a whole. Although the number of African-Americans within the USAF remained steady since 1994, their proportion of the force is still higher than that of the overall US population. Whites continue to dominate the USAF population, holding a 73.7% share



and far eclipsing the next nearest category of African-Americans at 14.7%. This, again, reflects the US population as a whole, although the percentage of whites is still less than in the US using the last USB statistics from 2006.<sup>35</sup>

Both the enlisted and officers corps reflect rising trends in Hispanic representation, although growth in the enlisted force is far stronger than in the officer corps. One possible reason behind this disproportionate rise in the enlisted ranks by Hispanics is the educational barrier presented by entrance into the officers corps, which, as noted earlier, generally requires a college degree. Although Hispanics in the US have slowly increased the percentage of high school graduates from 53.4% in 1995 to 58.5% in 2005, they continue to lag whites and African-Americans in this regard by a wide margin with 80.7% of blacks and 86.1% of whites earning their high school degrees in 2006. Even more telling is that by 2006 only 12.4% of Hispanics had attained a college degree, compared with 18.5% of blacks and 28.4% of whites.<sup>36</sup> While Hispanics now outnumber African-Americans in the population, the percentages of that group eligible to enter the military, both in the enlisted and officer ranks, is far fewer than whites or blacks. While this may hinder Hispanics from entering, the rising number of Hispanics in the USAF shows more and more eligible candidates are turning to military service and they are staying longer, as witnessed by the strong growth in the last decade.

Hispanics were the only race/ethnicity category that actually saw an increase in their numbers despite the aforementioned force drawdown. From their 1994 levels, the number of Hispanics in the enlisted force rose from 13,440 to almost 28,000, and this trend shows no signs of leveling off. The total number of African-Americans in the USAF enlisted force were down almost 23%, which corresponds to the total percentage

drop in the force during that time. In addition, the number of white personnel dropped almost 34%. The reductions within enlisted ranks with respect to race/ethnicity did not show any significant or unexpected trends, with a majority of the reductions coming in the ranks of E-4 and below. This is a logical conclusion since a reduction in manpower will be taken in the ranks where a larger portion of the force exists, and in the enlisted force, almost half of all personnel are E-4 and below.

If the race/ethnic category is further subdivided in race/ethnicity by gender, some subtle but perceptible shifts are being made within the enlisted and officer force. First, and as mentioned before, despite a reduction of 23% in the enlisted force since 1994 the total number of women in the USAF has essentially remained the same. However, demographics of women within the enlisted force are slowly changing. For instance, in 1994, whites made up 68.5%, African-Americans 24%, and Hispanics 3.8% of women in the USAF. However, by 2007, the percentage of women who were white slipped to 60.4%, African-American women had increased to 25.6%, and Hispanic females had increased to 12.7%. This three-fold increase in the number of Hispanic women was almost a one-for-one shift away from white women to Hispanic women and constitutes one of the largest demographic shifts inside the USAF.

The demographic shifts within enlisted men in many respects mirrors that of the women, with the numbers of white males dropping, and the number of Hispanic men doubling. The only difference is that the number of African-American males decreased, unlike African-American females.

In the officer corps, many trends are identical in nature to that of the enlisted force. For instance, white men still are the most prevalent demographic category, but

dropped from almost 90% of all officers in 1994, to 84% in 2007. While the percentage of white women officers has dropped by 12 percentage points since 1994, they still comprise 70% of all female officers. African-American women have made some inroads into the officers corps, and now represent 11.6% of all female officers, up from 10.2% in 1994. However, this percentage of African-American females has tailed off since 2002, where it reached a peak of 12.8% of all women officers. The officers corps, though, still lags the absorption of more Hispanics like the enlisted force, for aforementioned educational reasons. In the final analysis, the officer corps is still predominately white males, but but there is a steadily growing minority female presence, and within those minorities, Hispanics are the largest sector of that growth.

## **Conclusions**

To this stage so far, several demographic shifts related to gender, race, and marital status were identified in both the USAF and in the US population. This serves as a focus to help predict what these shifts mean, what actions can be taken to address adverse trends, and possible areas for further investigation. While not meant to be all-inclusive, these conclusions provide a basis for enhancing our overall understanding of what groups are being successfully recruited and retained in the USAF, while discerning if a segment of the population has turned either away or toward military service in light of the current issues and challenges faced by the USAF during this critical time in its history. In addition, possible alternatives to current force management techniques will be considered with the goal of better utilization of existing manpower to better accomplish the Air Force's mission.

## **Gender**

Addressing the challenges faced by both genders with respect to military service has always been problematic. In many respects, the traditional role of the soldier is still predominately played by a man and the numbers for all US military services bear witness to this fact. Integrating more women into the military over the past 30 years has only gradually taken hold due to long-existing cultural norms that manifested themselves by restricting women to only limited, non-combat roles. As women began to occupy more positions within the military, it took many years to break down these pre-existing cultural norms and legislative restrictions on women in combat to the point where we are today, where women can attain enter a vast majority of USAF Air Force Specialty Codes (AFSC).<sup>37</sup> In addition, women have increasingly received promotions to senior rank, and

positions commensurate with their level of education, experience, and performance, as shown by the growth of women in the ranks of senior NCOs and officer.

However, virtually no growth in the proportion of women since 2003 reflects a pause and possible downward trend in their future representation. Part of this leveling off may be the demands placed on personnel by constant deployments and the operational tempo of the USAF since 9/11. Another possible reason, related to operational tempo, may be marriage to another military member, commonly referred to as joint-spouse. By a 4 to 1 margin, enlisted women are more likely to be married to another active duty, Air National Guard (ANG), or Air Force Reserve Component (AFRC) members than their male counterparts. As a result, this makes women more vulnerable than their male counterparts to the unique stresses of deployments and other demands placed on a dual-military couple. While the USAF goes to great lengths to accommodate joint-spouse requirements and many couples endure this hardship to enjoy two careers, the increased USAF operational tempo since 2001 could aggravate the strain on dual-spouse airmen and cause the early exit of a trained, qualified, airman still wanting to otherwise serve.

Possibly mitigating the exit of women from the service altogether would be their entry into the ANG or AFRC from active duty and thereby reduce the strain on a dual spouse family. Anecdotal evidence indicates a moderate rise in the proportion of women in the ANG and AFRC, suggesting some are seeking to leave active service and join the other components. For instance, in 2003, 15.6% of officers in the ANG were women. By the end of Fiscal Year 2007, this increased to 16.7% and represented 187 more women serving as ANG officers, an 8.9% increase in the total number on women in the ANG in 2003. Furthermore, the ranks with the most growth were in the Captain and

Lieutenant Colonel ranks which grew by almost 25%. While this may be due to a variety of reasons, it could indicate a migration of former active duty female officers who have transferred into the ANG.

While numbers for the AFRC are not available previous to 2006, they also reflect a small, but rising trend in the percentage of women. If the theory that women were leaving the active component because of operational tempo or other reasons for the ANG or AFRC, it would be of benefit to the USAF since the service would not entirely lose entirely a trained, qualified, and motivated airman. However, movement to the ANG and AFRC is not a panacea to prevent the exit of women from the USAF. While providing a unique, excellent way to retain these airmen, the operational demands placed on both of those components are quickly approaching the level of the active force and therefore may not be as attractive alternatives as they were previously. Added to the disproportionate and rising share of female to male divorcees, the Air Force needs to examine ways to better recruit and more importantly retain women to prevent any downward trend in their numbers. The USAF should complete exit interviews or find other methods of capturing information as to why female airmen has chosen to leave and place it in a central repository. With indicators of lower representation by women due to possible stresses induced by continued service in the USAF, data is sorely needed to attack the problem in a more focused way.

If the issue of dual-spouse is a problem, it still leaves a difficult personnel management dilemma for the Air Force to attack. Should dual-spouse airmen be somehow given limited duty to prevent potential family discord and therefore create a special class of airmen that would increase the strain on unmarried airmen, or, should

nothing be done and the risk be accepted of a continued drain on qualified and trained airman? No easy answer exists to this conundrum, but the strain of military life on women presents a significant obstacle to compete for their needed skill and qualifications, and could therefore hinder the Air Force's ability to recruit and retain needed manpower.

### **Race/Ethnic Background**

The US military takes great pride in its ability to integrate personnel from all cultural backgrounds into an effective fighting force. While African-Americans served in all of America's wars, it was not until after World War II that they were integrated into all US military units. Previously, they were placed all African-American units, such as the Tuskegee Airmen of World War II. President Harry S. Truman mandated full-scale integration after World War II with Executive Order 9981 in 1948.<sup>38</sup> While still not without its problems, the US military is often used as an example of successful integration.<sup>39</sup> An example of the effectiveness with which the services have melted away racial differences for the sake of combat effectiveness and mission accomplishment comes from the Iraq War of 2003. After a group of Iraqis were captured by a platoon of US Army soldiers made up of Whites, African-Americans, Filipino-Americans and others, the Iraqis expressed amazement at the distinctly different cultures represented in the US Army and that they were fighting the Iraqis, not each other.<sup>40</sup>

While the integration of the US military by African-Americans led the way for other races to enter the Armed Forces, like Hispanics, their representation in the officer corps still lags. As mentioned before, a potential reason has to do with the educational

requirements imposed on personnel wanting to be officers, and the relative inability, especially of Hispanics, to overcome this hurdle.

One possible source of officer candidates comes from the enlisted force, where most complete on- or off-duty education as they progress through their enlistment. To illustrate, in December 2007 almost 100% of E-1's had at least a high school diploma, but only .3% (31 out of 10,104) of E-1's had an associate's degree or better. In contrast, by the rank of E-6, 53% have at least a two-year associate's degree, and more than 3% have at least a 4-year degree.<sup>41</sup> Many receive their associate's degree in their selected career field, such as aircraft or communications maintenance and air traffic control, by taking advantage of educational requirements as they complete their Career Development Coursework (CDC) and advance from 3-level to the 7-level skills in their selected career fields. This coursework provides college-level credit, and with the addition of other courses offered through the Community College of the Air Force, an enlisted person can attain this associate's degree. As a result, a huge pool of trained and educated airmen exists within the enlisted force by the time they reach E-6. Current programs offer enlistees to transfer to the officer corps once they complete all undergraduate requirements and earn a bachelor's degree, but many either do not wish to become officers or eschew further education.

To bridge the gap and recruit trained, qualified, and motivated enlisted personnel to become officers and tap into this potential resource the US Navy uses the concept of a Limited Duty Officer (LDO) to fill officer requirements in select technical fields. An LDO is previously enlisted, and while a college degree is not required to become an LDO, it is required for further advancement.<sup>42</sup> While the goal is still to provide qualified



manpower in sufficient terms to complete the Air Force mission, creatively tapping into this potential manpower in technical career fields such as aircraft maintenance could help some enlistees to cross over into the officer corps and fill a niche requirement.

Additionally, this could help Hispanics transfer to the officer corps and further enhance their representation in that segment of the Air Force. While Hispanics are represented at 12.2% in the ranks from E-1 through E-5, their representation drops steadily from E-6 through E-9 to 6.6%, while African-American and White counterparts maintain or increase their respective percentages.

At the rank of E-6 and above, there are two possible conclusions to draw with respect to Hispanic representation. First, Hispanics may turn away and separate from the Air Force for unknown reasons, more so than their White or African-American peers. Or, the requirement for further education to advance their careers (by E-9, 95% have an Associate's Degree or higher) inhibits a further rise in the ranks. However, the LDO opportunity would offer a method to capture this pool of Hispanics who exit the service or level off at the grade of E-5 because of this educational barrier. As a result, they could become LDOs in their selected career paths without the immediate need of a 4-year degree, provide the Air Force with a readily trained pool of technically competent officers, and offer Hispanics greater representation in the USAF officer corps. This is distinctly different than the need for airmen to reach the current requirement of a full undergraduate degree, and would speed the integration of qualified airmen into the officer corps.

## Summary

This paper sought to examine the ramifications of demographic shifts within the USAF and how they relate to the US population as whole. Almost every major demographic category studied showed significant trends as they relate to how the Air Force is represented in gender, race, and marital status. To counter a potential shift in lower representation by women, a recommendation was made to further investigate whether the impacts of an increased operational tempo posed too great a strain on women to continue their service. Finally, another recommendation was made to investigate the concept of the Limited Duty Officer, currently used by the US Navy as another resource to capture trained and qualified airman wanting to serve yet falling short on educational requirements. Both initiatives could provide limited answers on the increasingly competitiveness faced by the Air Force to recruit and retain personnel.

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## Endnotes

<sup>1</sup> Tom Philpott. "Air Force must shrink, but it's not painless or quick surgery." *The News Tribune*, 10 November 2007. <http://www.thenewstribune.com/business/story/200327.html> (accessed 5 December 2007)

<sup>2</sup> *American Heritage Dictionary*. 3<sup>rd</sup> Edition Boston, MA: Houghton Mifflin Comp., 1996, 497

<sup>3</sup> George A. Schell and Mark Stephen Monmonier, *The Study of Population Elements Pattern Processes* (Columbus Ohio: Charles E. Merrill Publishing Company, 1983) p. 10

<sup>4</sup> Warren S. Thompson and David T. Lewis, *Population Problems*, 5<sup>th</sup> Ed. (New York: McGraw Hill, 1965), p. 5

<sup>5</sup> United States Census Bureau, *Statistical Abstract of the United States: 2008* (Washington DC) Table 7 and Table 8

<sup>6</sup> Department of Commerce, *Statistical Abstract of the United States: 2008* (Washington, D.C.: United States Census Bureau, 2008) Table 9 and Department of Commerce, *Statistical Abstract of the United States: 1977* (Washington, D.C.: United States Census Bureau, 1978), Table 28

<sup>7</sup> US Census Bureau, "US Census Bureau History", <http://www.census.gov/acsd/www/history.html> (accessed 15 November 2007)

<sup>8</sup> Lewis Sorley, *Thunderbolt: General Creighton Abrams and the Army of His Times* (New York, New York, Simon and Schuster, 1992), 362-364

<sup>9</sup> The College Board, 2007-2008 College Costs: Keep Rising Prices in Perspective."

<http://www.collegeboard.com/student/pay/add-it-up/4494.html> (accessed 22 November 2007)

<sup>10</sup> Air Force Personnel Center Interactive Demographics Analysis System, Accessed October 2007 – January 2008. All demographic information related to Air Force enlisted and officer populations were derived from this database

<sup>11</sup> Department of Commerce, *Statistical Abstract of the United States: 2008* (Washington, D.C.: United States Census Bureau, 2008), Chart 669

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- <sup>12</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), Table 217
- <sup>13</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), 4
- <sup>14</sup> Office of Management and Budget Directive Number 15. *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity*, October 30, 1997
- <sup>15</sup> Department of Defense (DoD) Directive 1350.2. *"Department of Defense Military Equal Opportunity (MEO) Program"*, August 18, 1995
- <sup>16</sup> Conversation with AFPC IDEAS personnel, 16 Nov 2007
- <sup>17</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), 4
- <sup>18</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), vi
- <sup>19</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 1976 - 2008), various tables
- <sup>20</sup> All charts developed for this essay were derived from AFPC and USCB databanks and are the creation of the author
- <sup>21</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), Table 14
- <sup>22</sup> Conversation with AFPC IDEAS personnel, 16 Nov 2007
- <sup>23</sup> Mayo Clinic. "Healthy Marriage: Why Love is Good for You" <http://www.mayoclinic.com/health/healthy-marriage/MH00108> (access 15 December 2007)
- <sup>24</sup> Divorce Magazine.com, "US Divorce Statistics," <http://www.divorcemag.com/statistics/statsUS.shtml> (Accessed 18 November 2007)
- <sup>25</sup> Air Force Personnel Center Interactive Demographics Analysis System, Accessed October 2007 – January 2008. All demographic information related to Air Force enlisted and officer populations were derived from this database
- <sup>26</sup> United States Census Bureau, Statistical Abstract of the United States: 2008, Table 55 Page 50
- <sup>27</sup> Air Force Personnel Center Interactive Demographics Analysis System, Accessed October 2007 – January 2008. All demographic information related to Air Force enlisted and officer populations were derived from this database
- <sup>28</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), Table 55
- <sup>29</sup> General T. Michael Moseley, United States Air Force Chief of Staff, Interview by Timothy Clark of *Government Executive*, 30 Oct 07, <http://www.governmentexecutive.com/features/1107-15/1107-15s3.htm>
- <sup>30</sup> United States Marine Corps. : "A Young and Vigorous Force." June 2007 <http://www.usmc-mccs.org/aboutmccs/usmcdemographicsupdate.cfm?sid=mccs&smid=7>, 12 (Accessed January 30, 2008)
- <sup>31</sup> Howard N. Fullerton, Jr., "Labor Force Participation: 75 Years of Change, 1950 – 1998 and 1998 – 2025." *Monthly Labor Review*, December 1999, 4.
- <sup>32</sup> Anne E. Winkler, "Earnings of Husbands and Wives in Dual Earner Families." *Monthly Labor Review*, April 1998, 42
- <sup>33</sup> House, 1992 *National Defense Act*, 1992, HR 2100, Sec 531
- <sup>34</sup> Ms. Cindy Sheppard, "Women in Combat," US Army War College Research Project, (Carlisle Barracks, PA: Army War College, 30 March 2007), 2-4
- <sup>35</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), Table 6
- <sup>36</sup> Department of Commerce, Statistical Abstract of the United States: 2008 (Washington, D.C.: United States Census Bureau, 2008), Table 217 Page 145
- <sup>37</sup> A review of Air Force Manual 36-2105 (Air Force officer Classification) and 36-2108 (Air Force Enlisted Classification) revealed only a handful of Air Force Specialty Codes that exclude women, to include Combat Control, Combat Control, Special Operations Forces, Rotary Aircraft, TAC Pararescue, and Weather assignments with infantry or Special Forces. However, these AFSCs represent a small percentage of hundreds of AFSCs available to women in the Air Force
- <sup>38</sup> Executive Order 9981, Equality of Treatment and Opportunity In the Armed Forces, 26 July 1948

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<sup>39</sup> Charles Moskos, Interview by James Lehrer, 20 May 1997, transcript, *PBS On-Line Focus*

<sup>40</sup> Michael R. Gordon and Lt. Gen. Bernard E. Trainor, USMC (ret), *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* (New York, New York: Vintage Books, February 2007), 504

<sup>41</sup> Air Force Personnel Center Interactive Demographics Analysis System, Accessed October 2007 – January 2008. All demographic information related to Air Force enlisted and officer populations were derived from this database

<sup>42</sup> Department of the Navy. “Limited Duty Officer & Chief Warrant Officer Programs” Bureau of Navy Personnel., <http://www.npc.navy.mil/Officer/LDOCWOCCommunity/> (Accessed 14 December 2007)