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# THESIS

MINORITY WOMEN OFFICERS IN THE NAVY: PAST,  
PRESENT, AND FUTURE PROSPECTS

by

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MARCH 1991

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**Minority Women Officers in the Navy: Past, Present, and Future Prospects**

by

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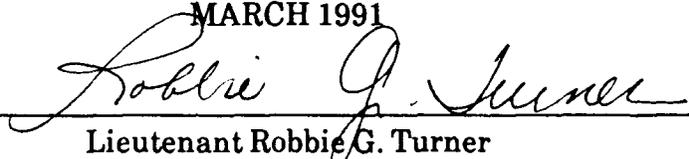
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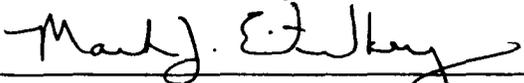
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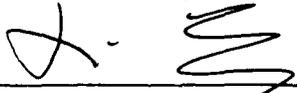
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## ABSTRACT

This thesis is exploratory in nature and looks at the history, current status, and prospects of minority women in the officer corps of the U.S. Navy. The recruiting, promotion, and retention of these women is compared with that of whites, using information provided by the Defense Manpower Data Center and other sources. Research focuses on the period from 1972 through 1990. Overall, the study shows a very positive trend occurring for minority women, especially blacks, with steadily increasing representation in the officer corps. However, potential problem areas are found in the distribution of minority women across occupations and in their related prospects for advancement.

In addition, evidence suggests that future participation by minority women may be adversely influenced by the planned reduction of Navy personnel. Several recommendations for further research are made, including the longitudinal tracking of minority women through their promotional flowpoints.

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## I. INTRODUCTION

This research is exploratory in nature. It is exploratory because little information exists on the history and current status of black women in the Navy officer corps. It examines the status and service of minority women officers in the United States Navy, and focuses on the issue of increased utilization of black female officers.

The history of women officers in the Navy began in 1908 with the establishment of the Navy Nurse Corps [Ref 1]. During World War II, the Navy took a step forward by allowing women to serve in jobs other than as nurses. This was done in order to free men from administrative work, and allow them to work in critical areas at sea during the war effort. Eventually, the Navy came to realize that women could be an asset: they could be used to help ease personnel shortages ashore as well as help alleviate the problem of forcing technically-trained personnel to cover non-technical, administration-related billets. Initially, black women were not allowed to enlist in the Navy. There were no black women officers in the Navy until 1944.

While the number of women officers in the Navy has increased steadily over the past two decades, the increases in black, Hispanic, and other minority women officers are small

compared to that of whites. This study looks at the recent past and attempts to lay the groundwork for evaluating policy concernint the direction of minority women officers in the Navy.

#### A. SOURCE OF THE ISSUE

In the early 1940s, Congress directed the armed services to accept women as part of an auxiliary force. While the Nurse Corps and a small group of "Yeomanettes" had existed as far back as 1908 in the Navy, this marked the first attempt to place women in military occupations that were previously assigned only to men.

The Army was the first branch of the military to recruit and commission female officer personnel as well as the first service to commission black female officers. Major Charity Earley, a member of the first class of women officers to be trained, commented on the situation in 1942:

The members of the first class continued to arrive [at] Fort Des Moines. We were 39 strong, eagerly awaiting the arrival of number 40. She never got there, so we were short one of the ten percent that had been allotted for Negro women, supposedly based on the percentage of the population we represented.[Ref 4:p 22]

The Navy and Marine Corps began commissioning female officer personnel in 1944, but only after they encountered manpower shortages and Congressional laws forced their hand. As World War II ended, the Navy decided that it no longer needed to recruit women (other than as nurses). The women officers who were not nurses were channeled into

administrative occupations. Here they remained, almost exclusively, for the next three decades.

After Congress passed the Armed Forces Integration Act of 1948, women were allowed permanent status in regular and reserve units, but remained segregated in separate units for women only. The Act also stipulated that the proportion of enlisted women could not exceed two percent of the total enlisted strength, and female officers (excluding nurses) could not exceed ten percent of female enlisted strength [Ref 23]. They were also required to adhere to more stringent enlistment requirements than men. These requirements included higher minimum age for enlisting, higher levels of education, and single marital status. Women were additionally excluded from the service academies and relegated mainly to health care and clerical jobs, the traditional "women's work" of the military. As the Vietnam war began, growing numbers of men and women entered the armed services. In 1967, Congress lifted the two-percent cap on women allowed in the military, though the proportion of women remained below this level for another six years [Ref 1].

At the start of the all-volunteer era in 1973, the military services were tasked by Congress to obtain a racial and ethnic "mix" of officer personnel that was similar to that of the civilian workforce [Ref 5]. This mix was to be representative of the nation's percentages of blacks and other

minorities that graduated from accredited, four-year colleges. At that same time, the Navy was tasked with recruiting and retaining black, Hispanic and other minority officers at minimum levels of six percent, three percent, and two percent, respectively, of its total officer force by the year 2000 [Ref 5:p 3-3]. Although the Navy has met yearly goals for both Hispanic and other minority officers, yearly goals have not yet been achieved for black officers.

#### **B. OUTLINE OF THE STUDY**

This study is exploratory, due to the limited information available on the status of black women officers in the Navy. The primary objective of the research is, consequently, to bring together a variety of material and data on the subject in the hope of aiding those who may wish to further examine related issues and policies.

The study begins with a review of literature on black women in the military, focusing specifically on the officer corps. Recruiting issues are examined as well as factors related to career patterns and advancement.

The next section describes the data and methodology used in the study. This is followed by the main body of work, including groups of tables showing various percentage distributions of women officers in the Navy by rank (for selected years), racial/ethnic group, source of commission,

and major occupational category. Additionally, tables illustrate percentage distributions of women officers commissioned in various years who remain on active duty as of 1990, and the occupations to which they are currently assigned. The final section presents the conclusions and recommendations resulting from the literature review and analysis of data.

## II. LITERATURE REVIEW

### A. CHRONOLOGY OF SERVICE BY BLACKS IN THE MILITARY

There have been numerous articles, journals, books and studies that address the issue of women in the military. Few publications have focused on the issue of how black female officers have been integrated into the services, particularly within the Navy. A detailed account of all events that have led to the commissioning of women in the military would go far beyond the scope of this study. Consequently, this section highlights the major events and individuals that helped to change the racial and gender composition of the military.

The first recorded visit of a black person to this continent was in 1528, almost a century prior to the arrival of slaves at Jamestown [Ref 6]. Although the visitor initially came as a slave during an expedition led by Panfilio de Navarez, who was looking for the Rio Grande River, the slave (named Estebano), later returned as a guide on a second expedition.

Black slaves began to arrive on the continent between 1619 and 1636. At the same time, colonists began to perceive that the Indians were a threat which had to be countered. Concerned groups of colonists passed their own laws sanctioning the American militia. All male citizens were

obligated to defend their land; however, they served in positions according to their status in the community. The rich were automatically appointed as officers, the commoners served as rank and file, and the lower classes were designated for service abroad (should such service ever be needed). The laws stipulated that only men would be required to serve their country.

In 1639, the colony of Virginia passed a law that explicitly excluded "Negroes" from being allowed to bear arms or carry ammunition [Refs 7: p 12 and 6]. Similarly, even though the state of Massachusetts required that all men residing there, regardless of race, attend militia training, fear emerged that blacks trained for military duty would soon begin revolting against slavery [Ref 6]. This fear led many of the colonies to pass laws banning blacks from military training. In New England and the central colonies, free blacks were allowed to enlist as soldiers, although slaves were excluded.

A much higher concentration of blacks was located in the South. This caused an especially strong concern for safety among Southern whites. Stricter laws were imposed in the South, and blacks were not allowed to serve in the militia; however, out of necessity, and due to the small number of whites available to properly carry out a large-scale military effort, blacks were used in emergencies [Ref 6].

Records show that colonial blacks first served as military officers in 1736 during an assault on the Natchez Indians. An all-black unit was assembled in Mobile, using free blacks as officers. At the end of the 1770s, all blacks were categorized as slaves, although many free blacks lived in the Northern colonies. During peacetime, as the population of blacks continued to rise to almost a half-million, fear again reared its head and blacks were exempted from military service--except during emergency situations. They were only allowed to serve in limited numbers, and they were restricted to jobs in support units or as laborers. The idea of allowing blacks to serve in leadership roles was not considered [Refs 3 and 6].

At the start of the American Revolution, the Army flatly refused to allow blacks to serve in its ranks. The British, on the other hand, felt that all able-bodied men were fair game and used blacks to ease manpower shortages. General Washington soon realized that he, too, needed more personnel. He eventually authorized his officers to enlist free blacks for service. Blacks continued to serve until the end of the war, and played significant roles in most major conflicts. The efforts of black soldiers were lauded by American commanders and then forgotten in time [Refs 3 and 6].

The Navy also had manpower shortages and could not afford to be as restrictive as the Army when enlisting men for

service. Blacks served on all ships, but their race was not always documented in the ship's log. The laws that were in effect during the Revolutionary period did not prevent blacks from serving in the Navy. In fact, some states paid blacks bonuses for serving in the Navy, others granted slaves freedom, and some states even gave small land grants to veteran black sailors [Ref 6].

When the American Revolution ended, so too did the quest of blacks to serve their country. Congress passed an Act in 1792 that restricted military service to "free, able-bodied, white male citizens" [Ref 6]. Most states again followed the lead of Congress, and even the Marine Corps (established in 1798) refused to enlist any man who was not white.

With the War of 1812, blacks once again had an opportunity to demonstrate they were a valuable manpower source. Many commanding officers at the time were furious at having to employ blacks; yet, when the conflict ended, blacks were again praised for their efforts and heroic duty [Ref 6:p 17]. Again, as in the past, when the War of 1812 ended, blacks' hopes of acceptance as citizens were crushed. They were no closer to freedom, because the Treaty of Ghent, which officially ended the War of 1812, required that each side be restored to its original status. Blacks were thus returned to their former owners, sent to the West Indies, or sold to make restitution to their former owners [Ref 6].

The practice of denying service to blacks in the military, except when emergency situations warranted, continued throughout the American Civil War. Few blacks were allowed to serve as officers because it was believed that, unlike whites, they lacked the backbone to be good leaders [Refs 6:p 23 and 3:p 155] In the early 1860s, the Navy allowed blacks to enlist, but they could only be a servant, cook, or "powder boy." By the end of the Civil War, the general seaman ranks were opened to blacks. The highest rank that blacks were allowed to achieve was "seaman," a lower-level position in the enlisted force.

Despite the fact that the Navy refused to allow blacks to achieve officer status, discrimination was less of a problem in the Navy than in the Army. Naval crews were integrated and there were no separate units for blacks. Prejudice, however, still remained an everyday occurrence in the Navy. Many people at the time believed that intelligence was a trait found only in whites when it came to performing jobs other than menial and manual labor [Ref 6]. Such stereotypes continued for many years. Indeed, by the end of World War I, there was still much resistance within the military toward allowing participation by blacks. This was evidenced by several reports to the Department of the Army stating that the performance of blacks during World War I was poor at best. In addition, a secret report from the Army War College alleged

that blacks were inferior and did not perform as well as whites during combat [Ref 6:p 32]. As a result, most white officers no longer wanted to be "burdened" with blacks.

As the nation was drawn into World War II, the War Department decided that the maximum strength of blacks in the Army would be limited to their proportion of the nation's general population, or approximately ten-percent. Although the ten-percent participation rate was set as a quota, none of the services ever reached the maximum allowable level. Policymakers for the Army did not feel that military service was the place to begin "experimenting" with racial groups in any way that might possibly give rise to future social trends in the United States. With this in mind, all units with blacks were required to remain segregated [Ref 3].

The Navy, although it had not previously banned blacks from serving, did not allow them to enlist from 1918 until the early 1930s. When the ban on blacks was lifted, they were confined to such occupations as messman or steward. Almost ten years passed before other occupations were opened to blacks. In 1943, the Navy staffed two ships (the USS Mason and the PC 1264) with all-black crews in an experiment designed to see if black sailors could serve in a wider variety of shipboard jobs. Originally, all personnel above the rank of E-3 assigned to these ships were white. Within six months of the staffing of these two ships, the white

sailors (except for officers) were replaced with blacks to show that blacks were being allowed advancement opportunities [Refs 3 and 6].

Given the Navy's traditionally white officer corps, it wasn't surprising that black officers were excluded from the regular Navy. The Navy chose to integrate a few-thousand blacks through the general service ratings; however, its non-white steward's branch and its lack of black officers were simply conditions that were ordinary and socially comfortable [Ref 3:p 237].

To see a black naval officer prior to 1943 was a unique experience in that relatively few blacks were allowed commissions. They constituted less than 1.9 percent of all officers in military service by the end of World War II, and none ever achieved flag rank during that war [Ref 6].

From the end of World War II through the Korean War, several studies were conducted (mostly by the Army) to determine if racial policies were proper and whether the idea of integration would produce better arm ' forces. An initial study recommended using blacks in more occupations while maintaining the ten-percent ceiling on enlistments [Ref 3]. Some Army officials did not agree with the recommendations of the study and commissioned a second task force (the Gillem Board) to investigate the issue. The Gillem Board recommended that the Army keep things "status quo" [Ref 3].

In 1948, shortly after the Army study was completed, President Truman's Executive Order 9981 opened a new door for blacks. The order called for "equality of treatment and opportunity" for all people serving in the armed forces [Ref 6:p 40]. The Navy claimed that it had already made progress toward racial equality, due to its own integration and non-discrimination policies in 1946 [Ref 2: p 27]. The Army privately fought the order and moved slowly toward integration until the start of the Korean war, which made integration a necessity [Ref 2]. In 1954, the Department of Defense announced that the military was officially integrated [Ref 7:p 30]. This announcement occurred during the same year the Supreme Court decided the case of Brown versus Board of Education and a full decade before the Omnibus Civil Rights Act of 1964.

The end of the Korean War found race relations in the military more calm than in the rest of society. In the late 1950s, the major problems encountered by blacks in the armed forces came from civilian communities located near military installations [Refs 7 and 22]. These problems eventually led to President Kennedy's reactivation of the President's Committee on Equal Opportunity in the Armed Forces, or the Gesell Committee. It was established in an effort to examine the special efforts and methods that were being used to increase the insufficient flow of qualified blacks into the

armed forces. It also looked at the various factors affecting the participation of blacks in the armed forces [Ref 7:p 31]. In 1964, the Gesell Committee provided detailed, information concerning unbalanced grade distributions of blacks, segregation, and exclusionary practices in some military units [Ref 7:p 32]. Within a year of these findings, the Vietnam war began.

The Vietnam war, unlike previous conflicts, found blacks doing more than their "fair share" of the fighting [Ref 7:p 32]. This situation added fuel to the anti-war movement in the U.S. and helped convince many people that the draft was basically unfair. By the early 1970s, efforts were being made in Congress and in the Department of Defense to spread the burdens of war more equitably throughout society. Military "representation" soon became an official objective of defense manpower policy [Ref 7].

The post-Vietnam era caused another major change for the military. For the first time, sensitivity training was conducted and race relations programs were established in an attempt to achieve racial harmony and to sensitize the military to what had occurred with the changing composition of the military. These changes included both racial integration of the armed forces and the integration of growing numbers of women into the services. In the late 1970s, sensitivity training was expanded to include issues specific to women.

## 1. The Role of Women in the Military From Colonial Times to Present

Seldom, if ever, were the wartime contributions of women of color noted in American history. During the colonial period, such women were often used to care for the homes of whites while white males were away fighting battles. The duties of these women often included assisting in the care of the wives and children who were left behind.

During the American Revolutionary period, women of color (along with whites) wove clothing for uniforms and flags, made bandages, helped melt metal for ammunition, and helped care for the wounded. The only black woman documented to have made a major contribution during this period was Phyllis Wheatley, who cautiously fought with pen and poetry to sharpen the conscience of whites concerning their beliefs about blacks [Ref 6:p 92].

During the Civil War, women of color were used to provide medical support for black troops and to assist in distributing supplies. One of the most noted black women to serve for the military during this period was Harriet Tubman, who was a spy for the Union Army and a ground navigator [Ref 22:p 44].

Women were first allowed to serve in an official military capacity in 1901, when the Army Nurse Corps was established, and later in 1908 with the creation of the Navy Nurse Corps. The establishment of such units did not mean that black women would be allowed to serve, as they originally envisioned.

In fact, many black nurses believed that affiliating with the Red Cross would give them the opportunity to serve with the military during World War I. They applied with proper credentials, but the Red Cross rejected all black applicants based on the fact that blacks were not allowed to enlist in the military at that time.

Two months prior to the signing of the 1918 Armistice (which ended World War I), black women were finally accepted in the Army Nurse Corps. When the Army began to experience severe shortages of nurses, it conducted an experiment with blacks. Black nurses were allowed to serve in integrated work settings, but they were required to live in segregated facilities. The results of this experiment revealed that blacks were competent and professional, again proving that blacks could perform as well as whites, given the proper training and adequate facilities.

By 1943, only 160 black nurses were commissioned in the Army, and black participation never exceeded one percent of the total Nurse corps [Ref 6]. Although the first significant numbers of black women came into the military during World War II, there is no record of black women officers in the Navy until 1944<sup>1</sup>. When Secretary of the Navy, James Forrestal, began integrating the Navy in 1946, only six black women

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<sup>1</sup> The first black women to receive officer commissions in the U.S. Navy were Ensign Pickens and Ensign Willis on 12 December 1944. [Ref 3:p 88]

officers were serving. Four of the six were nurses and all were reservists.

For the first 18 months after World War II, not one black was granted a commission in the regular Navy. In 1948, LTJG Edith DeVoe, one of the four black nurses commissioned in 1945, was allowed to augment into the regular Navy.

Historically, colleges were prevented from accepting blacks for admission to Naval Reserve Officer Training Corps (NROTC) programs because of state laws or institutional policies [Ref 3:p 247]. According to MacGregor, the Navy's attitude toward blacks during the post-war era was that of indifference [Ref 3:p 250]. Rather than attempt to change tradition, the Navy apparently chose to be viewed as a racist institution. This was ironic, because the Navy was actually the first service to develop a policy on integration. By the close of 1948, there were a total of four black women officers and only six black enlisted women in the Navy [Ref 3]. Shortly thereafter, the Navy agreed to utilize more blacks in other than its steward branch [Ref 22]. Within a few months, the number of black officers (both men and women) increased to 19, as shown in Table 1. Still, this meant that blacks accounted for just 0.04 percent of all naval officers. The number of black officers increased from 19 to 149 during the decade from 1949 to 1960, yet representation was still considerably less than three percent of total officer strength in the Navy.

TABLE 1

NUMBER AND PERCENT OF BLACKS IN THE US NAVY OFFICER CORPS,  
SELECTED YEARS, 1949-1960  
(ACTIVE DUTY)

Year	Black Officers	All Officers	Percent Black
1949	19	45,464	0.04
1951	23	66,323	0.03
1953	53	78,095	0.07
1955	81	71,591	0.11
1960	149	69,559*	0.21*

Source: MacGregor, Morris J. [Ref 3: p 416]

Note: \* Figures taken from BuPers Annual Report, Navy and Marine Corps Military Personnel Statistics, 30 June 1960

The numbers of women officers increased substantially during the following decade. Black officer representation experienced the most growth in the decade beginning in 1974 and ending in 1984, with the most significant increases during the early 1980s [Ref 6]. This growth was attributed to the opening of more occupational specialties, the elimination of the two-percent ceiling of women allowed to serve on active duty, and the introduction of the All-Volunteer Force [Ref 3].

B. RECRUITMENT OF WOMEN OFFICERS

Since the implementation of the All-Volunteer Force, the task of recruiting people for the officer corps has taken on a new meaning. The services have experienced little difficulty in attracting officers for non-specific job assignments; however, officers possessing technical or scientific backgrounds are difficult to recruit for the

officer corps because they are in demand in the civilian sector for entry-level management positions.

Until the early 1970s, the Reserve Officer Training Corps (ROTC), Officer Candidate School (OCS)/Officer Training School (OTS), and the service academies were not open to women desiring to join the officer corps. According to Snyder, the establishment of the Naval Academy and West Point was for the primary purpose of providing professionally-trained officers on a continuous basis [Ref 8: p 403]. ROTC and OCS were later established to provide the larger numbers of officers needed in the event of war.

ROTC was opened to women in the early 1970s, and the service academies began accepting women in 1976. This led to more women entering the military, since both programs offered paid scholarships for up to four years to the most qualified applicants as opposed to OCS and OTS, which required that the vast majority of applicants already possess a college degree before they would be allowed admittance to these officer training programs. Given that ROTC continues to be a major source of officer commissions for black and other minority female officers, representation of these officers in the upper ranks has not changed very much over the past decade.

The Army and the Air Force have been successful in meeting or exceeding their yearly recruiting goals for minority officer personnel. Recent studies attribute the

success of these services to their recruiting policies, advertising, and an established reputation for giving officers equal opportunities in the workplace, regardless of sex or racial/ethnic background. The Navy, on the other hand, appears to suffer from a poor image within many minority communities. The negative perception is reinforced by the fact that a relatively small number of minorities are found above the level of Lieutenant Commander [Ref 9].

Historically, black women have never accounted for more than two-percent of all Naval officers at the rank of Commander or above. This compares with approximately six percent for white female officers [Ref 18]. Stunted promotion opportunity may partially explain why the number of black female officers remains so small in the Navy. Once a woman enters the Navy's officer corps, she may find that her promotion opportunities are not as favorable as she had originally anticipated and somewhat less than the promotion opportunities of her white counterparts [Ref 18:p 73]. In 1989, approximately five percent of female officers in the Navy were black, compared with almost nine percent of female officers in the Air Force, and over ten percent of those in the Army [Ref 11:p 20].

It has been suggested that these percentages, coupled with historical accounts of the Navy's treatment of minority officers, have hampered black and other minority women from

seeking commissions in the Navy [Ref 13]. Further, the recruiting difficulties of the Navy are compounded by the private sector's aggressive recruitment of minority college graduates.

### C. SELECTION AND ASSIGNMENT ISSUES

In 1972, Congress mandated that the Navy, which was the branch of service having the most difficulty recruiting non-white officers for its ranks, realign its manning and officer endstrengths to reflect a six-percent composition of black officers [Ref 5]. Gender did not appear to be a major consideration at the time the goals were set.

Since the end of the draft, all services have increased their numbers of women. As of 1982, women accounted for about 8.5 percent of all commissioned officers in the military. As retired Major Jeanne Holm stated in 1986:

In the short span of ten years, the number of women in the Army, Navy, Air Force and Marine Corps has risen from a token 40,000 or roughly one percent of the active forces in 1971, to 184,000 in 1981. Women now comprise fully 8.5 percent of the total defense establishment. [Ref 1: p xiv]

The proportion of women rose to almost ten percent by 1989. Currently women comprise 11 percent of the active duty enlisted force and about 12 percent of all active duty officers. In fiscal 1989, women accounted for even higher proportions of new members: 14 percent of new enlistees that year and approximately 17 percent of all newly-commissioned officers [Ref 24].

Nevertheless, several black and other minority female officers have observed that their assignments have differed from the assignments of their white female counterparts. They (blacks and other minorities) observed that they had not been assigned to billets other than those that were primarily administrative in nature, while their white female counterparts were being assigned to some of the operational or 'career enhancing' billets [Ref 13].

While the Navy maintains that it gives equal access for promotion and assignment to of all its officers, many minority female officers claim that this has not always been the case. During 1976, the Navy Personnel Research and Development Center (NPRDC) published data that had been collected on commissioned officers by rank, gender, and ethnic group [Ref 19]. As of 30 June 1976, only 992 blacks held a commission in the Navy. Of this number, 114 were black women, or approximately 0.18 percent of the entire Navy officer corps [Ref 19]. Almost twenty years have passed since Congressional recruiting goals were set. The overall percentage of black representation in the Navy officer corps has yet to reach a mere four percent, while the Army and Air Force continue to meet or exceed their established goals for black officers [Refs 14 and 15:p 1]. It is further noted that each time the target year for attaining six percent black representation in

the Navy officer corps approaches, it is extended. At present, the goal is not expected to be reached until the year 2001<sup>2</sup>.

It is clear that a more meaningful approach is needed for actively recruiting, promoting, and retaining black, Hispanic and other minority women officers. Statistics indicate that qualified women in these racial/ethnic groups are in the civilian population and that they do join the military, as evidenced by the successful efforts of the other services in meeting their yearly goals. What, then, can the Navy do to draw its share from the same pool of qualified applicants?

Black, Hispanic, and other minority officer goals were set in the Navy on the basis of the percentage of these minorities graduating and attaining degrees from accredited four-year colleges. There were no guidelines in the Congressionally-mandated goals concerning the distribution of minority officers by gender. The already-existing Navy programs, such as the Limited Duty Officer Program (LDO), the Advanced Education Program (AEP), the Direct Commissioning Program (DA), and other such programs were not bringing sufficient numbers of minorities into the officer ranks. These programs were designed to allow the Navy to "grow its own" officers without having to compete for students from college campuses. Additionally, these in-house programs were

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<sup>2</sup> US Department of the Navy, CNO Study Group Report on Equal Opportunity in the Navy, 1989 (pp. 1-8 and 3-3).

not receiving the same focus or support as the regular officer recruiting programs, nor were they commissioning as many officers from the enlisted ranks as the Navy desired.

Since the original goals were set, the number of black male college graduates has been declining and the number of black female college graduates has been on the rise. This trend is disturbing, according to author Bing Inocencio. He notes that "... black male enrollees, as a percentage of higher education enrollees nationwide, have declined from 4.3 percent in 1976 to 4.0 in 1978 to 3.8 percent in 1980 to 3.5 percent in 1986 [Ref 16]." With this in mind, the Navy might consider redirecting and focusing its efforts on recruiting more black women. However, this could be a difficult policy to pursue in the years ahead. Lyons states that, with the planned reduction in military manpower, fewer individuals will be recruited, and it is expected that higher standards will be set for entrance into the armed services. In addition, she suggests that black women may feel the brunt of a reduction-in-force [Ref 11:p 19-22]. If this is the case, the Navy may face great difficulty in achieving its goal of six percent black officers.

Based on historical information, today's Navy appears to fall into the general category that Earley describes, which existed in 1942. According to Major Earley, "Several of us (blacks) who had been in high school together were back, now

college graduates, teaching in a system where our white counterparts were high school graduates. Negroes had to be twice as qualified as whites for equivalent jobs" [Ref 4:p 9].

To the public, the Navy tells of how far it has come with respect to successfully integrating its service and how it was once a trailblazer for equal opportunity. The actual numbers of minority officers, however, tell a slightly different story. A traditional institution such as the Navy is not exempt from having problems, especially when it is faced with implementing social change. What other reason is there to explain the Navy's failure to meet a minimum goal of only six percent black officers after almost 20 years?

#### D. CAREER PATTERNS AND ADVANCEMENT

Once women were allowed to serve in the Navy, other issues emerged. Since women were restricted from assignment to certain classes of seagoing vessels, the issue of career patterns developed. Male officers serving in specific designators had clearly defined career paths. Women, on the other hand, had no indication as to what direction they were headed once commissioned. Since no established career patterns existed, a pattern was outlined for the Unrestricted Line (URL) Community<sup>3</sup>. Initially, the URL's career pattern was not well designed, compared with the already established career patterns for most male officers. Female officers'

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<sup>3</sup> The Unrestricted Line Community includes over 65 percent of the women officers not assigned to the Nurse Corps or health care-related fields.

career patterns restricted them to health care, administration, or supply-related occupations, as was the case in the mid-1940s. Once the problem concerning career patterns was recognized, manpower officials restructured the URL and attempted to designate certain billets as "career enhancing." Such billets were designed to enhance the promotion potential of women officers who served in these billets.

While the career path of a woman officer is expected to take her through a series of duty assignments, it has been noted that her career path is less structured than that of her male counterpart. According to Christine Downing, over 60 percent of women officers are unfamiliar with the direction in which their career should go with respect to the types of job assignments they should seek [Ref 12:p 24-27].

**E. FUTURE PROSPECTS: EFFECTS OF PLANNED FORCE CUTS ON THE CAREER OPPORTUNITIES OF BLACK WOMEN OFFICERS**

Although women have fought long and hard to obtain their current military status, it appears that they will have to fight even harder to maintain it. With projected force cuts being discussed at length, many believe that the services will trim their forces based on the manpower needs of each individual service. The Navy is legally prohibited from allowing women to serve aboard combat vessels or vessels that have the potential of being drawn under hostile fire. Most male Naval officers are trained for combat duty aboard ships that are to be deployed on the high seas. This would suggest

that women officers are most likely to be lost in the event of force reductions. Furthermore, minorities are less likely than whites to obtain college degrees in technical areas prior to joining the service [Ref 17]. At the same time, minority women are less likely than minority men to earn degrees in technical areas. This puts minority women at the very bottom of the pool of candidates for an increasingly high-tech military. The Navy is expected to place added stress on the need for technically-trained officer personnel in the years ahead [Refs 7, 11 and 17]. Minority women may find fewer opportunities for service in the Navy's officer corps--with or without a force reduction. The fact that the Navy is planning to reduce the size of its officer corps only increases the probability of continued underrepresentation of minority women.

### III. DATA AND METHODOLOGY

This study looks at women officers in the Navy based on four racial/ethnic categories: white, black, Hispanic and other minority. Comparisons are made of their promotions, commissioning sources, and retention patterns. In addition, the study looks at the status of women officers with respect to major occupational categories.

#### A. DATA SOURCES

Data were collected from three sources: the Defense Manpower Data Center (DMDC) in Monterey, California; the Navy Personnel Research and Development Center (NPRDC) in San Diego, California; and the Naval Military Personnel Command (NMPC) Code N-61 in Washington, DC.

Data from NMPC (Code N-61) include Navy-wide demographic data for active duty Navy personnel for the fourth quarter of fiscal 1984 through 1989. Data were available on gender and racial/ethnic group for each category. Rank and designator were also provided. Additional data were received from NMPC (Code N-61) on the "U.S. Navy Annual Assessment of Military Equal Opportunity Programs" for fiscal 1982 through 1988. Prior to 1984, these data did not show specific numbers of female personnel serving on active duty in the Navy; however, racial/ethnic categories were available.

Statistical data provided by NPRDC included information on active duty officer distributions by gender, racial/ethnic group, rank, and designator as of 30 June 1976. DMDC provided data on officer personnel serving on active duty in the Navy from 1972 through 1990.

## **B. METHODOLOGY**

Analysis of the three different sets of data proved difficult. It was not possible to come to complete agreement, in all three sets, on the numbers of women officers commissioned from 1972 through 1990. The biggest obstacle was that each set of data had different cut-off dates. Nevertheless, special tabulations provided by DMDC gave more representative figures for the years 1976, 1980, 1985, and 1990. NPRDC provided specific tabulations of data for 1976. Navy-wide demographic data and the Navy's "Annual Assessment of Equal Employment Opportunity Programs" provided data which showed a breakdown of women and minorities only from the early 1980s. Comparisons of those data were, therefore, done only for fiscal 1985 through 1989.

The most complete data sets were received from DMDC. Information contained in DMDC data bases are received directly from NMPC [Ref 20]. Data and special tabulations received from DMDC were, therefore, relied on most heavily for the purposes of this study.

DMDC furnished cross tabulations on the status of women commissioned in the Navy as of fiscal 1990, by race, occupation and year of commission. Cross tabulations were also made available on women commissioned in the Navy, by source of commission, race and year of gain. The final set of tabulations showed the distribution of active duty forces by occupation, gender, and racial/ethnic group for the years 1987, 1976, 1980, 1985 and 1990. In addition to these data, DMDC provided files for 1972, 1976, 1980, 1985 and 1990 on all officers commissioned in the Navy, by racial/ethnic group and rank. The Statistical Application System (SAS) version 5.18, was used for 1976, 1980, 1985 and 1990 files. The 1972 files could not be manipulated due to a coding error in the racial/ethnic category; however, the remaining files were manipulated by using procedure commands in SAS. The use of frequency distributions and sorting of data were the primary procedures used. Finally, warrant officers, limited duty officers, and officers with rank unknown were deleted from tabulations.

#### IV. RESULTS AND DISCUSSION

Tables 2 and 3 show the racial/ethnic composition of the Navy for both men and women, for 1976, 1980, 1985, and 1990. These tables illustrate the numbers and percent distribution of officers who were serving on active duty during selected years. These tables show the proportion of black, Hispanic and other minority men officers has increased significantly from 1976 to 1990, when compared to white males.

It can also be seen in Table 3 that the number of women officers commissioned from 1976 to 1990 has doubled. In addition to the increase in number, Table 3 also illustrates that the proportion of black and Hispanic women officers has doubled from 1976 to 1990, and other minority women officers representation has increased substantially. White women officers proportions; however, have experienced a steady decline over the same period.

**TABLE 2**  
**RACIAL/ETHNIC COMPOSITION OF MEN IN THE NAVY OFFICER CORPS,**  
**SELECTED YEARS, 1976-1990**

NUMBER					
YEAR	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS TOTAL
1976	54,273	821	538	632	56,264
1980	52,148	1,244	359	1,752	55,503
1985	55,436	1,687	940	2,205	60,268
1990	55,960	2,109	1,451	2,127	61,647

PERCENT					
YEAR	WHITE	BLACK	HISPANIC	OTHER	PERCENT TOTAL
1976	96.5	1.5	0.9	1.1	100.0
1980	94.5	2.2	0.6	3.2	100.0
1985	92.0	2.8	1.6	3.6	100.0
1990	90.8	3.4	2.4	3.4	100.0

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all male commissioned officers whose racial/ethnic response was not coded as white, black, or Hispanic.

Note: Percentages were rounded and may not add up to 100.

**TABLE 3**

**RACIAL/ETHNIC COMPOSITION OF THE NAVY OFFICER CORPS  
SELECTED YEARS, 1976-1990**

WOMEN

NUMBER					
YEAR	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS TOTAL
1976	3,355	131	44	95	3,625
1980	4,523	219	47	238	5,027
1985	6,084	444	100	305	6,933
1990	6,673	591	192	323	7,779

PERCENT					
YEAR	WHITE	BLACK	HISPANIC	OTHER	PERCENT TOTAL
1976	92.6	3.6	1.2	2.6	100.0
1980	90.0	4.4	0.9	4.7	100.0
1985	87.8	6.4	1.4	4.4	100.0
1990	85.8	7.6	2.5	4.1	100.0

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all women officers whose racial/ethnic response was not coded as white, black, or Hispanic.

Note: Percentages are rounded and may not add up to 100.

## 1. Rank Distributions

Tables 4 through 7 show number and percentage distributions of all commissioned officers in the Navy, by gender, racial/ethnic group, and rank for the years 1976, 1980, 1985 and 1990 (separately). These tables reveal that percentage distributions are very similar for men across the selected years in all racial/ethnic groups. The proportions of women in the ranks of Ensign and Lieutenant Junior Grade (LTJG) are higher than those for men. As seen in Tables 4 through 7, women are more concentrated in the lower ranks than are men. This reflects the fact that the numbers of women in the officer corps have been expanding over the years. In addition, promotion opportunities are probably more limited for women than for men, since women do not have the opportunity to serve aboard seagoing vessels that have the potential of being drawn into combat.

When the distributions of women officers are viewed, it can be seen that minority women tend to be concentrated in the lower officer ranks when compared to white women. The reasons for the differences are similar to the reasons given above with respect to men and women officers. The numbers of women have been growing (from 3,625 in 1976 to 5,027 in 1980 to 6,933 in 1985 and to 7,779 in 1990) as have the numbers of men, but the growth rate for women has been far greater (more than doubling from 1976 to 1990). At the same time, the

numbers of female minorities have been expanding at an exceptionally great rate. For example, the number of black women officers was four and one-half times larger in 1990 than in 1976. It has been equally large for Hispanic women and about three and one-half times larger for women of other minority groups. The number of white women had doubled between 1976 and 1990--which is notable, but not as great as the growth rate for minority women. This helps to explain why the rank distributions of white women are different from those of minority women. Institutional discrimination may also play a role, but this an issue that cannot be determined from these data.

TABLE 4

NUMBER AND PERCENT DISTRIBUTION OF COMMISSIONED OFFICERS IN THE NAVY BY GENDER, RACIAL/ETHNIC GROUP AND RANK, 1976

MEN						
RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS	
					PERCENT	NUMBER
ADMIRAL	*	0.0	0.0	0.0	*	11
VICE ADMIRAL	0.1	0.0	0.0	0.0	*	38
REAR ADMIRAL (U)	0.2	0.0	0.0	0.0	0.2	88
REAR ADMIRAL (L)	0.3	0.1	0.0	0.0	0.3	139
CAPTAIN	6.6	2.4	5.4	1.2	6.6	3,690
COMMANDER	13.3	4.5	10.2	4.2	13.0	7,320
LIEUTENANT COMMANDER	23.0	8.5	20.3	26.1	22.7	12,792
LIEUTENANT	29.0	32.4	28.0	39.2	29.1	16,370
LIEUTENANT JUNIOR GRADE	14.5	24.2	19.0	17.5	14.7	8,295
ENSIGN	13.0	27.7	17.1	11.6	13.4	7,521
TOTAL						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	54,273	821	538	632	--	56,264
WOMEN						
RANK	WHITE	BLACK	HISPANIC	OTHER	PERCENT	NUMBER
REAR ADMIRAL (L)	0.1	0.0	0.0	0.0	0.1	2
CAPTAIN	1.7	0.0	2.3	0.0	1.6	60
COMMANDER	6.5	3.8	2.3	4.0	6.3	228
LIEUTENANT COMMANDER	12.4	12.2	15.9	17.1	12.6	459
LIEUTENANT	29.2	27.5	29.6	46.7	29.5	1,069
LIEUTENANT JUNIOR GRADE	31.4	31.3	27.2	23.0	31.1	1,126
ENSIGN	18.7	25.2	22.7	1.3	18.8	681
TOTAL						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	3,355	131	44	95	--	3,625

Source: Derived from data files provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

Note: An asterisk \* indicates less than .05 percent of officers serving in designated rank.

TABLE 5

NUMBER AND PERCENT DISTRIBUTION OF COMMISSIONED OFFICERS  
IN THE NAVY, BY GENDER, RACIAL/ETHNIC  
GROUP AND RANK, 1980

MEN						
RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS	
					PERCENT	NUMBER
ADMIRAL	*	0.0	0.0	0.0	*	8
VICE ADMIRAL	0.1	0.0	0.0	0.0	*	32
REAR ADMIRAL (U)	0.2	0.1	0.0	0.0	0.2	87
REAR ADMIRAL (L)	0.3	0.1	0.0	0.0	0.2	133
CAPTAIN	6.6	2.3	6.1	3.7	6.4	3,534
COMMANDER	14.0	2.7	10.0	10.4	13.6	7,524
LIEUTENANT COMMANDER	21.6	11.1	24.0	23.0	21.4	11,876
LIEUTENANT	25.8	35.9	26.5	36.9	26.7	14,810
LIEUTENANT JUNIOR GRADE	16.2	27.5	15.0	9.8	16.2	8,997
ENSIGN	15.3	20.2	18.4	15.3	15.3	8,502
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	52,148	1,244	359	1,752	--	55,503
WOMEN						
RANK	WHITE	BLACK	HISPANIC	OTHER	ALL GROUPS	
					PERCENT	NUMBER
REAR ADMIRAL (U)	*	0.0	0.0	0.0	*	1
REAR ADMIRAL (L)	*	0.0	0.0	0.0	*	1
CAPTAIN	1.6	1.4	4.3	0.4	1.6	81
COMMANDER	4.7	5.0	4.3	4.1	4.7	234
LIEUTENANT COMMANDER	14.0	8.7	14.8	28.9	14.2	714
LIEUTENANT	31.7	32.9	36.2	43.9	32.9	1,652
LIEUTENANT JUNIOR GRADE	26.2	31.5	25.5	13.7	25.5	1,284
ENSIGN	21.8	20.5	14.9	9.0	21.1	1,060
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	4,523	219	47	238	--	5,027

Source: Derived from data files provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded white, black or Hispanic.

Note: Percentages are rounded and may not add to 100.

Note: An asterick \* indicates less than .05 percent of officers serving in designated rank.

**TABLE 6**

**NUMBER AND PERCENT DISTRIBUTION OF COMMISSIONED OFFICERS  
IN THE NAVY, BY GENDER, RACIAL/ETHNIC GROUP AND RANK, 1985**

MEN						
RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS	
					PERCENT	NUMBER
VICE ADMIRAL@	0.1	0.0	0.0	0.0	0.1	40
REAR ADMIRAL (U)	0.2	0.1	0.0	0.0	0.1	87
REAR ADMIRAL (L)	0.2	0.2	0.1	0.0	0.2	125
CAPTAIN	6.3	1.3	2.3	3.5	6.0	3,629
COMMANDER	13.0	4.0	5.7	8.8	12.4	7,489
LIEUTENANT COMMANDER	20.4	18.8	16.0	18.4	20.1	12,115
LIEUTENANT	30.6	36.9	28.1	45.6	31.5	18,992
LIEUTENANT JUNIOR GRADE	14.8	18.7	23.3	10.4	15.0	8,994
ENSIGN	14.4	20.0	24.5	13.3	14.6	8,797
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	55,436	1,687	940	2,205	--	60,268
WOMEN						
RANK	WHITE	BLACK	HISPANIC	OTHER	ALL GROUPS	
					PERCENT	NUMBER
REAR ADMIRAL (L)	*	0.0	0.0	0.0	*	2
CAPTAIN	1.5	1.4	1.0	0.2	1.5	101
COMMANDER	5.5	1.6	3.0	6.8	5.3	368
LIEUTENANT COMMANDER	18.0	14.9	15.0	21.8	17.9	1,238
LIEUTENANT	40.2	36.5	34.0	46.9	40.3	2,792
LIEUTENANT JUNIOR GRADE	19.2	23.0	22.0	11.3	19.1	1,327
ENSIGN	15.6	22.8	25.0	13.0	15.9	1,105
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	6,084	444	100	305	--	6,933

Source: Derived from data provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

Note: The VADM@ rank includes both Vice Admirals and Admirals.

Note: An asterisk \* indicates less than .05 percent of officers serving at designated rank.

TABLE 7

NUMBER AND PERCENT DISTRIBUTION OF COMMISSIONED OFFICERS IN THE NAVY, BY GENDER, RACIAL/ETHNIC GROUP AND RANK, 1990

MEN						
RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS PERCENT	NUMBER
VADM <sup>2</sup>	0.1	0.0	0.1	0.0	0.1	39
REAR ADMIRAL (U)	0.2	0.1	0.1	0.0	0.1	87
REAR ADMIRAL (L)	0.2	0.1	0.1	0.0	0.2	130
CAPTAIN	6.4	1.4	1.8	3.3	6.0	3,691
COMMANDER	12.2	6.6	4.8	6.9	11.7	7,201
LIEUTENANT COMMANDER	19.6	17.1	12.6	24.5	19.4	11,978
LIEUTENANT	33.6	35.3	36.8	34.7	33.8	20,853
LIEUTENANT JUNIOR GRADE	14.8	18.3	19.8	11.8	15.0	9,227
ENSIGN	12.9	21.2	23.8	18.7	13.7	8,441
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	55,960	2,109	1,451	2,127	--	61,647
WOMEN						
RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	ALL GROUPS PERCENT	NUMBER
REAR ADMIRAL (U)	*	0.0	0.0	0.0	*	1
REAR ADMIRAL (L)	*	0.0	0.0	0.0	*	1
CAPTAIN	1.6	0.5	1.0	2.1	1.6	124
COMMANDER	7.9	4.0	1.6	6.9	7.4	579
LIEUTENANT COMMANDER	23.0	15.1	10.0	23.2	22.0	1,706
LIEUTENANT	38.0	44.5	48.4	42.9	38.8	3,017
LIEUTENANT JUNIOR GRADE	14.8	16.4	15.6	12.9	14.9	1,157
ENSIGN	14.7	19.5	23.4	12.0	15.3	1,194
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	--
NUMBER	6,673	591	192	323	--	7,779

Source: Derived from data files provided by Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black, or Hispanic.

Note: Percentages are rounded and may not add up to 100.

Note: The VADM<sup>2</sup> rank includes both Vice Admiral and Admiral ranks.

Note: An asterisk \* indicates less than .05 percent of officers serving in designated rank.

## 2. Occupational Distributions

As stated earlier, women were first allowed to hold commissions in the Navy as nurses. This occupation is one of two--the other being administration--in which the overwhelming majority of women officers have served. Women officers serving in health care and related occupations are either nurses, physicians, dentists, surgeons or other specialists in the health care field. These officers receive direct appointments into the service, starting at a rank commensurate to their experience. The same procedures hold true for other officers commissioned in occupations such as the Judge Advocate General Corps or other staff occupations.

Tables 8 through 12 show the number and percent distribution of women officers in the Navy (in 1972, 1976, 1980, 1986, and 1990, separately) by the major occupational category to which they were assigned. Table 8 shows, as expected, that over 75 percent of white, black, and Hispanic female officers were assigned to either health care or administrative occupations in 1972. About 56 percent of women in the "other" racial/ethnic group were also assigned to these two occupational categories.

**TABLE 8**

**NUMBER AND PERCENT DISTRIBUTION OF WOMEN OFFICERS<sup>1</sup>  
IN THE NAVY BY MAJOR OCCUPATIONAL CATEGORY AND  
RACIAL/ETHNIC GROUP, 1972**

MAJOR OCCUPATIONAL CATEGORY	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	62.1	58.5	78.6	44.5
ADMINISTRATIVE	17.6	26.4	14.3	11.1
SUPPLY	0.6	1.9	0	0
SCIENCE <sup>3</sup>	1.4	0	0	11.1
ENGINEERING <sup>4</sup>	1.6	0	0	0
INTELLIGENCE	1.0	0	0	0
TACTICAL	0.7	0	0	0
FLAG RANK	0.3	0	0	0
NON-OCCUPATION	0.0	0	0	0
UNKNOWN	14.7	13.2	7.1	33.3
<b>TOTAL</b>				
PERCENT	100.0	100.0	100.0	100.0
NUMBER	3,095	53	28	9

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Only commissioned officers were included in calculations.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance occupations.

Note: Percentages were rounded and may not add up to 100.

**TABLE 9**

**NUMBER AND PERCENT DISTRIBUTION OF WOMEN OFFICERS<sup>1</sup> IN THE NAVY  
BY MAJOR OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP, 1976**

MAJOR OCCUPATIONAL CATEGORY	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	55.1	52.8	45.2	68.7
ADMINISTRATIVE	17.8	15.2	11.9	11.9
SUPPLY	1.7	2.4	0	0
SCIENCE <sup>3</sup>	6.8	11.2	2.4	1.5
ENGINEERING <sup>4</sup>	3.8	3.2	11.9	1.5
INTELLIGENCE	2.7	1.6	0	0
TACTICAL	1.4	0.8	2.4	0
FLAG RANK	0.7	0	0	0
NON-OCCUPATION	0.2	0	0	0
UNKNOWN	9.8	12.8	26.2	16.4
<b>TOTAL</b>				
PERCENT	100.0	100.0	100.0	100.0
NUMBER	3,345	125	42	67

Source: Derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: Only commissioned officers are included in tabulations.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance occupations.

Note: Figures were rounded and as a result, percentages may not add up to 100.

Table 9 shows that, by 1976, proportionately more white, black, and Hispanic women officers had moved into the science and engineering occupations. At the same time, proportionately more women from the "other" racial/ethnic category were serving in both health care and administrative occupations.

TABLE 10

NUMBER AND PERCENT DISTRIBUTION, OF WOMEN OFFICERS<sup>1</sup> IN THE NAVY  
BY MAJOR OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP, 1980

MAJOR OCCUPATIONAL CATEGORY	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	45.4	43.8	63.4	72.0
ADMINISTRATIVE	20.3	26.4	14.3	6.7
SUPPLY	2.4	2.9	2.0	1.4
SCIENCE <sup>3</sup>	8.7	11.1	4.1	4.4
ENGINEERING <sup>4</sup>	5.4	2.9	2.0	1.8
INTELLIGENCE	3.2	1.9	2.0	1.8
TACTICAL	2.6	0.4	2.0	0.4
FLAG RANK	2.1	2.4	2.0	0.4
NON-OCCUPATION <sup>5</sup>	0	0	0	0
UNKNOWN	9.9	8.2	8.2	11.1
<b>TOTAL</b>				
PERCENT	100.0	100.0	100.0	100.0
NUMBER	4,395	208	49	225

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Only commissioned officers were included in tabulations.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

Note<sup>5</sup>: The non-occupation category represents officers that were not designated in any of the above noted major occupational categories.

Note: Percentages were rounded and may not add up to 100.

By 1980, as seen in Table 10, the percentage of women serving in occupational categories other than health care or administration had increased for every racial/ethnic group except "other." This reflects policy changes that permitted women to move out of the traditional clerical and nursing jobs into a more diversified range of occupations within the Navy.

TABLE 11

NUMBER AND PERCENT DISTRIBUTION OF WOMEN OFFICERS<sup>1</sup>, IN THE NAVY  
BY MAJOR OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP, 1986

MAJOR OCCUPATIONAL CATEGORY	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	37.2	27.0	35.4	65.5
ADMINISTRATIVE	21.3	32.4	25.4	13.1
SUPPLY	3.5	3.8	4.6	0.2
SCIENCE <sup>3</sup>	9.0	14.2	13.8	3.9
ENGINEERING <sup>4</sup>	8.1	4.4	6.2	5.7
INTELLIGENCE	4.6	3.1	2.3	0.8
TACTICAL	4.2	3.5	0.8	1.0
FLAG RANK	5.0	3.3	2.3	0.8
NON-OCCUPATION <sup>5</sup>	0	0.2	0	0
UNKNOWN	7.1	8.1	9.2	9.0
<b>TOTAL</b>				
PERCENT	100.0	100.0	100.0	100.0
NUMBER	6,245	479	130	388

Source: Data derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: Only commissioned officers were included in tabulations.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

Note<sup>5</sup>: The non-occupation category includes officers who were not serving in any of the above designated major occupational categories.

Note: Percentages are rounded and may not add up to 100.

By 1986 (Table 11), all racial/ethnic groups, except "other", had about 60 percent or less of women officers serving in health care or administrative-related occupations. Growing percentages of women had been assigned to the science and engineering occupations. However, by 1990, (as seen in Table 12), this trend had reversed and the percentages of women serving in health care and administration grew to over 76 percent across all racial/ethnic groups. This is similar

to the level found in the mid-1970s (see Table 8), and is uncharacteristic of the general trend throughout the armed services--that is, the increasing movement of women into traditionally-male occupations.

It is also interesting to note here that the proportion of black women officers in the two traditionally-female occupations is the highest of all racial/ethnic groups--over 82 percent. This compares with 76 percent for white women, almost 78 percent for Hispanics, and 81 percent for those in the "other" group. Curiously, just four years earlier (see Table 11), women in the three major racial/ethnic groups (white, black and Hispanic) were distributed quite differently across the major occupational categories--with between 59 and 61 percent assigned to the combination of health care and administrative occupations. In addition, the proportion of women within the three major racial/ethnic groups assigned to these two areas was quite similar (about 59 percent for both whites and blacks and less than 61 percent for Hispanics).

TABLE 12

NUMBER AND PERCENT DISTRIBUTION OF WOMEN OFFICERS<sup>1</sup>, IN  
THE NAVY BY MAJOR OCCUPATIONAL CATEGORY AND  
RACIAL/ETHNIC GROUP, 1990

MAJOR OCCUPATIONAL CATEGORY	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	43.9	40.0	46.7	55.5
ADMINISTRATIVE	32.3	42.5	30.8	25.8
SUPPLY	3.5	5.6	5.6	3.9
SCIENCE <sup>3</sup>	3.7	4.4	3.6	1.6
ENGINEERING <sup>4</sup>	3.6	2.5	1.5	3.9
INTELLIGENCE	3.5	1.0	3.1	1.9
TACTICAL	5.1	1.2	4.6	2.3
FLAG RANK	0	0	0	0
NON-OCCUPATION <sup>5</sup>	4.3	2.6	4.1	5.1
UNKNOWN	0.1	0.2	0	0
<b>TOTAL</b>				
PERCENT	100.0	100.0	100.0	100.0
NUMBER	6,806	588	195	256

Source: Data derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: Only commissioned officers were included in tabulations.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

Note<sup>5</sup>: The non-occupation category includes officers who were not serving in any of the above designated major occupational categories.

Note: Percentages were rounded and may not add up to 100.

### **3. Women Commissioned in the Navy**

Table 13 displays the number and percent distribution of women officers commissioned in the Navy by racial/ethnic group, and it illustrates how the population has changed over each of the selected years. It can be seen that from 1976 to 1990, the percent of white female officers commissioned decreased slightly. It can also be seen that the percentages for black women officers doubled for each of the successive years shown here. From 1976 to 1980, the percentages for Hispanic women officers declined; however, from 1980 through 1990, their percentages increased. Table 13 also shows that from 1976 to 1985, there is an increase in the percentage of other minority women officers commissioned in the Navy, and that they experienced a slight decrease from 1985 to 1990. The decline in the annual proportion of white women being commissioned is quite substantial over the 14-year period. Indeed, in 1990, over ten percent of all newly commissioned officers were black, and about 20 percent were from one of the three minority groups. This evidences the fact that minority representation in the female sector of the officer corps has been steadily increasing.

**TABLE 13**

**NUMBER AND PERCENT DISTRIBUTION OF ALL WOMEN OFFICERS  
COMMISSIONED IN THE NAVY BY RACIAL/ETHNIC GROUP,  
1976, 1980, 1985, AND 1990**

<u>NUMBER</u>						
YEAR OF COMMISSION	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	TOTAL	
1976	422	7	22	25	476	
1980	842	38	14	70	964	
1985	695	80	17	64	856	
1990	856	112	37	70	1075	

<u>PERCENT</u>						
YEAR OF COMMISSION	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>	TOTAL	
1976	88.7	1.5	4.6	5.3	100.0	
1980	87.3	3.9	1.5	7.3	100.0	
1985	81.2	9.3	2.0	7.5	100.0	
1990	79.6	10.4	3.4	6.5	100.0	

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all female commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

With the Naval Academy and the ROTC scholarship programs now providing alternative commissioning sources to women, both programs have been aligning themselves so that they are able to assist in training and commissioning larger numbers of women officers. With these avenues for women now open, there is a possibility that more minority women officers may be able to receive commissions, and assist the Navy in obtaining its desired racial/ethnic mix in the officer corps.

#### 4. Commissioning Sources

Tables 14, 15, and 16 illustrate the numbers and percent distributions, by commissioning source, of women officers entering the Navy from 1972 through 1990. It should be noted that these tables show data for selected years, while Table 17 displays the same data for all years from 1972 through 1990.

As shown in Table 14, the proportion of white women commissioned through the Naval Academy decreased from over 95 percent in the 1972-1980 time period to about 78 percent in 1990. For blacks, the percentage increased dramatically--from 2.1 percent in 1972-1980 to 10.7 in 1982. From 1982 to 1986, Table 15 shows that the percentage of black women commissioned through the Naval Academy decreased, and from 1986 to 1990, percentages again increased to approximately the same level as in 1982. Table 14 also shows that Hispanic women make up a decreasing percentage of Naval Academy officers from 1985 through 1988. In 1990, however, Hispanic women experienced a slight increase in their representation among Naval Academy graduates. For other minority women, Table 14 shows that percentages increased from 1980 to 1982, decreased from 1982 to 1984, increased again from 1984 to 1988, and then fell slightly from 1988 to 1990.

For the ROTC programs, Table 15 shows a decrease in the percentage of whites commissioned for all years from 1980 through 1986. The year 1988 is the only aberration from the

trend, when white women represented over 88 percent of all women commissioned through ROTC. Black representation increased from 1982 to 1986, and then decreased from 1986 to 1988. Between 1988 to 1990, the proportion of blacks again increased from 8.7 percent to 11.7 percent. As seen in table 15, representation for Hispanics is only shown in 1984, 1988, and 1990. For other minorities, Table 15 shows that they comprised less than four percent of women officers commissioned through ROTC during each of the selected years except 1990.

Table 16 displays the number and percentage distribution of women commissioned through other sources. As seen here, the proportion of whites decreased from 1980 through 1986, increased in 1988, and again declined in 1990. For blacks and Hispanics, the proportion increased steadily from 1982 through 1990. For other minorities, the proportion increased from 1980 through 1986, then decreased sharply in 1988, and rebounded slightly in 1990.

Tables 14 through 16 show that, as the number of minority women officers increased, so did their representation within the total group. The decade of the 1980s was not a particularly strong period of growth in the number of newly commissioned female officers in the Navy--but it was clearly stronger for minority women than for women in general. Still, though black women comprised 11 percent of female Academy graduates, this converts to just 10 people; and though black

women accounted for about 12 percent of women ROTC graduates, they numbered just 14; and though they represented over 10 percent of women commissioned through other sources, the actual number of black women was just 88 that year.

**TABLE 14**

**NUMBER AND PERCENT DISTRIBUTION OF WOMEN COMMISSIONED  
IN THE NAVY THROUGH THE NAVAL ACADEMY<sup>1</sup> BY RACIAL/ETHNIC GROUP,  
SELECTED YEARS, 1972-1990**

<u>NUMBER</u>						
RACIAL/ETHNIC GROUP	1972-1980	1982	1984	1986	1988	1990
WHITE	45	45	53	56	63	74
BLACK	1	6	4	3	5	10
HISPANIC	0	2	1	1	1	4
OTHER <sup>2</sup>	1	3	1	3	6	7
<u>TOTAL</u>						
NUMBER	47	56	59	63	75	95
<u>PERCENT</u>						
RACIAL/ETHNIC GROUP	1972-1980	1982	1984	1986	1988	1990
WHITE	95.8	80.3	89.8	88.9	84.0	77.9
BLACK	2.1	10.7	6.8	4.7	6.7	10.5
HISPANIC	0.0	3.6	1.7	1.6	1.3	4.2
OTHER <sup>2</sup>	2.1	5.4	1.7	4.8	8.0	7.4
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	100.0

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Women were first enrolled in the Naval Academy in 1976. The first graduating class which included women, received commissions in 1980.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all women officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

**TABLE 15**

**NUMBER AND PERCENT DISTRIBUTION OF WOMEN COMMISSIONED  
IN THE NAVY, THROUGH THE RESERVE OFFICER TRAINING CORPS  
BY RACIAL/ETHNIC GROUP, SELECTED YEARS, 1972-1990**

<u>NUMBER</u>						
RACIAL/ETHNIC GROUP	1972-1980	1982	1984	1986	1988	1990
WHITE	48	53	88	77	112	98
BLACK	4	4	13	14	11	14
HISPANIC	0	0	1	0	1	1
OTHER <sup>1</sup>	1	2	1	3	3	7
<u>TOTAL</u>						
NUMBER	53	59	103	94	127	120
<u>PERCENT</u>						
RACIAL/ETHNIC GROUP	1972-1980	1982	1984	1986	1988	1990
WHITE	90.6	89.8	85.4	81.9	88.2	81.7
BLACK	7.5	6.8	12.6	14.9	8.7	11.7
HISPANIC	0.0	0.0	1.0	0.0	0.8	0.8
OTHER <sup>1</sup>	1.9	3.4	1.0	3.2	2.3	5.8
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

**TABLE 16**  
**NUMBER AND PERCENT DISTRIBUTION OF WOMEN COMMISSIONED**  
**IN THE NAVY THROUGH OTHER SOURCES<sup>1</sup> BY RACIAL/ETHNIC**  
**GROUP, SELECTED YEARS, 1972-1990**

RACIAL/ETHNIC GROUP	<u>NUMBER</u>					
	1972-1980	1982	1984	1986	1988	1990
WHITE	5,925	581	497	579	453	684
BLACK	109	38	35	50	41	88
HISPANIC	222	14	7	42	17	32
OTHER <sup>2</sup>	315	47	61	117	29	56
<u>TOTAL</u>						
NUMBER	6,571	680	600	788	540	860
RACIAL/ETHNIC GROUP	<u>PERCENT</u>					
	1972-1980	1982	1984	1986	1988	1990
WHITE	90.2	85.4	82.8	73.5	83.9	79.6
BLACK	1.6	5.6	5.8	6.3	7.6	10.2
HISPANIC	3.4	2.1	1.2	5.3	3.1	3.7
OTHER <sup>2</sup>	4.8	6.9	10.2	14.9	5.4	6.5
<u>TOTAL</u>						
PERCENT	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Other sources refers to all commissioning sources except the Naval Academy and ROTC.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all commissioned officers whose racial/ethnic response was not coded white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

**TABLE 17**

**NUMBER AND PERCENT DISTRIBUTION OF WOMEN COMMISSIONED  
IN THE NAVY BY SOURCE OF COMMISSION AND RACIAL/ETHNIC  
GROUP, 1972-1990**

RACIAL/ETHNIC GROUP	NAVAL ACADEMY	ROTC	OTHER SOURCES <sup>1</sup>	TOTAL	
				PERCENT	NUMBER
WHITE	4.8	6.5	88.7	100.0	12,984
BLACK	5.5	14.0	80.5	100.0	763
HISPANIC	3.5	2.4	94.1	100.0	425
OTHER <sup>2</sup>	4.5	2.9	92.6	100.0	982
<b>ALL GROUPS</b>					
PERCENT	4.7	6.6	88.6	100.0	--
NUMBER	718	993	13,433	--	15,154

Source: Data derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Other sources refers to all commissioning sources except the Naval Academy and ROTC.

Note<sup>2</sup>: The "Other" racial/ethnic group includes all commissioned officers whose was not coded white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

Table 17 covers all years from 1972 through 1990. It can be seen here that the proportion of Academy graduates among black female officers commissioned from 1972 through 1990 (5.5 percent), is greater than the comparable proportions for white, Hispanic and other women. It should be noted; however, that the number of white female officers commissioned through the Naval Academy from 1980 through 1990 (617) is more than six times larger than the number of all minority women (101) commissioned through this source<sup>4</sup>. This includes 42 black women, 15 Hispanic women, and 44 women from other minority groups. It can also be seen that white and other minority women officers are commissioned at about the same relative rate from this source. Table 17 further shows that the

<sup>4</sup> Numbers were extracted from DMDC cross-tabulations.

proportion of black women officers commissioned through the ROTC scholarship programs is over twice the level as that for white female officers.

The majority of women commissioned from 1972 until 1990 came through sources other than the Naval Academy and ROTC programs. A look at the occupational categories, in the context of continuation rates, in which these women officers serve may possibly explain why this is so.

#### **5. Continuation in the Navy**

Table 18 provides a breakdown on the percentages of women officers commissioned in selected years, by racial/ethnic group, who remained on active duty in 1990. Table 18 shows that over 50 percent of the black female officers commissioned in 1972, and over 41 percent of their Hispanic counterparts remained on active duty as of 1990. This compares with 16.7 percent of white female officers. While percentages of black women officers are likewise higher than the percentage for whites over each of the remaining periods, the number of black, Hispanic and "other" minority women commissioned have been considerably smaller than the number of white women.

It is interesting to note that the continuation patterns for black women are generally higher than those of their white counterparts. This is consistent with previous research showing that blacks have a greater propensity than whites to stay in the military--though most studies have looked

primarily at men in the enlisted ranks [Ref 7]. The differences between white and black women (except for 1972, when just four black women were identified) are relatively small: 3.7 percentage points for those commissioned in 1976, 1.3 percentage points for those commissioned in 1980, and 2.8 percentage points for those commissioned in 1985. The fact that the differences are not larger is somewhat surprising, given the historical rates of longevity for blacks in the military.

On the other hand, the continuation patterns of Hispanic women officers and those of other racial/ethnic groups tend to be substantially lower than those of their white counterparts. As can be seen in the next series of tables on continuation rates by occupation (Tables 19 through 22), the numbers of Hispanic women commissioned in each of the selected years was quite small. However, women officers from the "other" racial/ethnic group actually outnumbered black women officers in each of the years shown here except 1985 (when 80 black women were commissioned, compared with 17 Hispanics and 64 others). The noticeably lower rates for non-black minority women are, consequently, both interesting and perplexing.

**TABLE 18**

**PERCENTAGE OF WOMEN NAVAL OFFICERS COMMISSIONED IN  
1972, 1976, 1980, AND 1985 WHO REMAINED ON ACTIVE DUTY IN  
1990, BY RACIAL/ETHNIC GROUP**

YEAR OF COMMISSION	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>
1972	16.7	50.0	41.7	12.5
1976	24.9	28.6	22.7	20.0
1980	43.4	44.7	28.6	28.6
1985	61.1	63.9	94.1	47.0

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic category includes all commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages were rounded and may not add up to 100.

6. Continuation in the Navy by Occupation

Tables 19 through 22 show percentages of women naval officers who were commissioned in selected years and remained on active duty as of 1990, distributed by the major occupational categories to which the women were originally assigned. Table 19 shows that few of the women officers commissioned in 1972 remained on active duty in 1990. This includes just a handful of minority women, according to official records: two black women, five Hispanic women, and

one woman from the "other" racial/ethnic minority group. Of the two black women still in the Navy, one was in health care and the other in administration. The five remaining Hispanic women are found in tactical occupations, with one serving at flag rank. A total of 139 white female officers (out of 696 commissioned in 1972) were still in the Navy in 1990. The majority of these women were found in health care and administrative-related occupations, but they are also serving in supply, science and engineering, and tactical occupations.

Table 20 shows that black women officers commissioned in 1976 remain in administrative and health care occupations. Hispanics are likewise found primarily in administration and health care, but they are also represented in supply occupations. Other minority women officers are found in administrative, health care, and intelligence occupations. Although whites are assigned to health care and administrative occupations, they are also found still serving in supply, engineering, science, and tactical occupations.

As seen in Table 21, more women are assigned to previously male-dominated areas such as engineering and maintenance, science and professional, and tactical occupations. This movement from health care and administration to a wider variety of occupations continued for those commissioned in 1985, as seen in Table 22.

The collection of information shown in Tables 19 through 22 suggests that white women officers who remain in the Navy tend

to be distributed more widely than their minority counterparts throughout the various job categories. This is largely attributable to substantial differences in numbers--but it also appears, from more recent data (Table 22), that minority women are clustered to a much greater extent in the two traditionally-female occupations. For example, about 43 percent of all white women officers who were commissioned in 1985 could be found serving in health care or administration (if one assumes they were still in the occupational area to which they were originally assigned--which may not always be the case). This compares with about 55 percent of black women officers commissioned in 1985 and over 82 percent of Hispanic women. (The relationship does not hold for women from other racial/ethnic groups, though 38 percent could still be found in these two occupational areas.) In other words, just 8.9 percent of all black women officers commissioned in 1985 were assigned to an occupational area other than health care or administration. By comparison, over 17 percent of white women officers commissioned in 1985 could be found in a non-traditional field.

**TABLE 19**

**PERCENTAGE OF WOMEN NAVAL OFFICERS WHO WERE COMMISSIONED IN 1972 AND REMAINED ON ACTIVE DUTY IN 1990, BY MAJOR OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP**

MAJOR OCCUPATIONAL CATEGORY <sup>1</sup>	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	10.9	25.0	0.0	12.5
ADMINISTRATIVE	5.3	25.0	0.0	0.0
SUPPLY	0.2	0.0	0.0	0.0
SCIENCE <sup>3</sup>	0.1	0.0	0.0	0.0
ENGINEERING <sup>4</sup>	0.0	0.0	0.0	0.0
INTELLIGENCE	0.0	0.0	0.0	0.0
TACTICAL	0.1	0.0	33.3	0.0
FLAG RANK	0.0	0.0	8.3	0.0
NON-OCCUPATION	0.0	0.0	0.0	0.0
UNKNOWN	0.0	0.0	0.0	0.0
<b>TOTAL</b>				
PERCENT REMAINING	16.7	50.0	41.6	12.5
PERCENT DISCHARGED	83.3	50.0	58.4	87.5
NUMBER REMAINING	139	2	5	1
NUMBER DISCHARGED	696	2	7	7

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Occupational category is the first one on record for each officer.

Note<sup>2</sup>: The "Other" racial/ethnic category includes all commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages are rounded and may not add up to 100.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

**TABLE 20**

**PERCENTAGE OF WOMEN NAVAL OFFICERS WHO WERE COMMISSIONED IN 1976 AND REMAINED ON ACTIVE DUTY IN 1990, BY MAJOR OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP**

MAJOR OCCUPATIONAL CATEGORY <sup>1</sup>	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	15.2	14.3	13.6	8.0
ADMINISTRATIVE	6.6	14.3	4.6	8.0
SUPPLY	0.2	0	4.5	0
SCIENCE <sup>3</sup>	1.2	0	0	0
ENGINEERING <sup>4</sup>	0.2	0	0	0
INTELLIGENCE	0.7	0	0	4.0
TACTICAL	0.7	0	0	0
FLAG RANK	0	0	0	0
NON-OCCUPATION	0	0	0	0
UNKNOWN	0	0	0	0
<b>TOTAL</b>				
PERCENT REMAINING	24.9	28.6	22.7	20.0
PERCENT DISCHARGED	75.1	71.4	77.3	80.0
NUMBER REMAINING	105	2	5	5
NUMBER DISCHARGED	317	5	17	20

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Occupational category is the first one on record for each officer.

Note<sup>2</sup>: The "Other" racial/ethnic category includes all commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages were rounded and may not add up to totals.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

**TABLE 21**

**PERCENTAGE OF WOMEN NAVAL OFFICERS WHO WERE COMMISSIONED IN  
1980 AND REMAINED ON ACTIVE DUTY IN 1990, BY MAJOR  
OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP**

MAJOR OCCUPATIONAL CATEGORY <sup>1</sup>	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	10.8	10.5	21.5	14.3
ADMINISTRATIVE	24.2	26.3	7.1	14.3
SUPPLY	1.7	2.6	0	0
SCIENCE <sup>3</sup>	1.0	5.3	0	0
ENGINEERING <sup>4</sup>	1.4	0	0	0
INTELLIGENCE	2.3	0	0	0
TACTICAL	1.9	0	0	0
FLAG RANK	0	0	0	0
NON-OCCUPATION	0.1	0	0	0
UNKNOWN	0	0	0	0
<b>TOTAL</b>				
PERCENT REMAINING	43.4	44.7	28.6	28.6
PERCENT DISCHARGED	56.6	55.3	71.4	71.4
NUMBER REMAINING	365	17	4	20
NUMBER DISCHARGED	477	21	10	50

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Occupational category is the first one on record for each officer.

Note<sup>2</sup>: The "Other" racial/ethnic category includes all commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages were rounded and may not add up to totals.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

**TABLE 22**

**PERCENTAGE OF WOMEN NAVAL OFFICERS WHO WERE COMMISSIONED IN  
1985 AND REMAINED ON ACTIVE DUTY IN 1990, BY MAJOR  
OCCUPATIONAL CATEGORY AND RACIAL/ETHNIC GROUP**

MAJOR OCCUPATIONAL CATEGORY <sup>1</sup>	WHITE	BLACK	HISPANIC	OTHER <sup>2</sup>
HEALTH CARE	23.9	22.5	58.8	37.5
ADMINISTRATIVE	19.0	32.2	23.5	0
SUPPLY	1.7	1.3	0	1.6
SCIENCE <sup>3</sup>	2.2	1.3	0	1.6
ENGINEERING <sup>4</sup>	3.2	5.0	0	0
INTELLIGENCE	2.9	0	0	0
TACTICAL	7.3	1.3	11.8	6.3
FLAG RANK	0	0	0	0
NON-OCCUPATION	0.9	0	0	0
UNKNOWN	0	0	0	0
<b>TOTAL</b>				
PERCENT REMAINING	61.1	63.9	94.1	47.0
PERCENT DISCHARGED	38.9	36.1	5.9	53.0
NUMBER REMAINING	424	51	16	30
NUMBER DISCHARGED	271	29	1	34

Source: Derived from special tabulations provided by Defense Manpower Data Center.

Note<sup>1</sup>: Occupational category is the first one on record for each officer.

Note<sup>2</sup>: The "Other" racial/ethnic category includes all commissioned officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages were rounded and may not add up to totals.

Note<sup>3</sup>: The science category includes both science and professional occupations.

Note<sup>4</sup>: The engineering category includes both engineering and maintenance related occupations.

## **7. Continuation by racial/ethnic group**

Tables 23 through 26 show the status, by rank and by racial/ethnic group, of women naval officers commissioned in 1972, 1976, 1980, and 1985 (separately) who remained on active duty in 1990. These tables should be interpreted in the same manner as the tables showing continuation in occupational areas. The percentages indicate the proportion of women (by racial/ethnic group) commissioned in a particular year who were at each separate rank as of September 1990.

As seen in Table 23 (women commissioned in 1972), the numbers of black, Hispanic, and other minority women are extremely small compared with the number of whites. This is also true in Table 24 (women commissioned in 1976). Even though there were only two out of seven black women from the 1976 cohort, remaining in the Navy the continuation rate for blacks was similar to that of whites. At the same time, no black or Hispanic women (the numbers being as small as they are), achieved rank higher than Lieutenant Commander (LDCR). This compares with four percent of whites (17 women) and four percent of "others" (1 woman Captain).

The number of minority female officers increased again for those commissioned in 1980 (Table 25), so the percentage distributions by rank have a little more meaning. All women tend to be clustered at the rank of LCDR, though proportionately more black women than women in any of the other three racial/ethnic groups can be found at the level of

Lieutenant (LT). A total of 16 women (11 white women and 5 from the "other" group) achieved the rank of Commander, and one from the "other" minority officer group was serving as Captain.

The majority of women commissioned in 1985 were at the level of LT in 1990, as seen in Table 26. The proportions of black women and Hispanic women remaining in the Navy were higher than that for whites, as evidenced here and elsewhere in the study. Indeed, just one out of the 17 Hispanic women commissioned in 1985 was no longer in the Navy as of September 1990. However, the discharge rate for women in the "other" racial/ethnic group--53 percent--is unusually high for women commissioned in 1985. At the same time, there were proportionately more women from this racial/ethnic group serving at the rank of LCDR (in fact, 8 women, which is the same number of white women at this level, from a much larger pool).

Aside from these differences, there is generally nothing extraordinary about the data in Table 26. Promotions are directly related to the amount of time an officer serves in the military, and the information here suggests that the majority of all women officers commissioned in 1985 have been promoted at similar intervals.

Further, it should be noted that the percentage of black women officers remaining on active duty as of 1990 is higher

than that of all the remaining racial/ethnic groups, for each year selected, except for Hispanic women in 1985. Also, women from the "other" racial/ethnic group tend to have the lowest proportion remaining in the Navy.

**TABLE 23**

**PERCENT DISTRIBUTION OF WOMEN NAVAL OFFICERS COMMISSIONED IN 1972, BY RACIAL/ETHNIC GROUP AND RANK AS OF 1990**

RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>
CAPTAIN	0.4	0.0	0.0	0.0
COMMANDER	10.3	25.0	33.3	12.5
LIEUTENANT COMMANDER	5.7	25.0	8.3	0.0
LIEUTENANT	0.2	0.0	0.0	0.0
LIEUTENANT JUNIOR GRADE	0.0	0.0	0.0	0.0
ENSIGN	0.0	0.0	0.0	0.0
<b>TOTAL</b>				
PERCENT REMAINING	16.7	50.0	41.7	12.5
PERCENT DISCHARGED	83.3	50.0	58.3	87.5
NUMBER REMAINING	139	2	5	1
NUMBER DISCHARGED	696	2	7	7

Source: Derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all commissioned officers whose racial/ethnic response was not coded white, black or Hispanic.

Note: Percentages are rounded and may not add up to totals.

**TABLE 24**

**PERCENT DISTRIBUTION OF WOMEN NAVAL OFFICERS COMMISSIONED IN  
1976, BY RACIAL/ETHNIC GROUP AND RANK AS OF 1990**

RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>
CAPTAIN	1.2	0.0	0.0	4.0
COMMANDER	2.8	0.0	0.0	0.0
LIEUTENANT COMMANDER	20.4	28.6	18.2	16.0
LIEUTENANT	0.5	0.0	4.6	0.0
LIEUTENANT JUNIOR GRADE	0.0	0.0	0.0	0.0
ENSIGN	0.0	0.0	0.0	0.0
<b>TOTAL</b>				
PERCENT REMAINING	24.9	28.6	22.8	20.0
PERCENT DISCHARGED	75.1	71.4	77.2	80.0
NUMBER REMAINING	105	2	5	5
NUMBER DISCHARGED	317	5	17	20

Source: Derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black, or Hispanic.

Note: An asterisk \* indicates less than .05 percent of officers were represented at designated rank.

Note: Percentages are rounded and may not add up to totals.

**TABLE 25**

**PERCENT DISTRIBUTION OF WOMEN NAVAL OFFICERS COMMISSIONED  
IN 1980, BY RACIAL/ETHNIC GROUP AND RANK AS OF 1990**

RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>
CAPTAIN	0.0	0.0	0.0	1.4
COMMANDER	1.3	0.0	0.0	7.1
LIEUTENANT COMMANDER	31.7	26.3	21.4	18.6
LIEUTENANT	10.5	18.4	7.1	1.4
LIEUTENANT JUNIOR GRADE	0.0	0.0	0.0	0.0
ENSIGN	0.0	0.0	0.0	0.0
<b>TOTAL</b>				
PERCENT REMAINING	43.5	44.7	28.5	28.5
PERCENT DISCHARGED	56.5	55.3	71.5	71.5
NUMBER REMAINING	366	17	4	20
NUMBER DISCHARGED	476	21	10	50

Source: Derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages are rounded and may not add up to totals.

Note: An asterisk \* indicates less than .05 percent of women officers serving in designated category.

**TABLE 26**

**PERCENT DISTRIBUTION OF WOMEN NAVAL OFFICERS COMMISSIONED IN 1985, BY RACIAL/ETHNIC GROUP AND RANK AS OF 1990**

RANK	WHITE	BLACK	HISPANIC	OTHER <sup>1</sup>
CAPTAIN	0.0	0.0	0.0	0.0
COMMANDER	0.1	0.0	0.0	0.0
LIEUTENANT COMMANDER	1.2	1.3	0.0	12.5
LIEUTENANT	59.1	63.8	94.1	34.4
LIEUTENANT JUNIOR GRADE	0.1	0.0	0.0	0.0
ENSIGN	0.3	0.0	0.0	0.0
<b>TOTAL</b>				
PERCENT REMAINING	60.8	65.0	94.1	46.9
PERCENT DISCHARGED	39.0	35.0	5.9	53.1
NUMBER REMAINING	424	52	16	30
NUMBER DISCHARGED	271	28	1	34

Source: Derived from special tabulations provided by the Defense Manpower Data Center.

Note<sup>1</sup>: The "Other" racial/ethnic group includes all officers whose racial/ethnic response was not coded as white, black or Hispanic.

Note: Percentages were rounded and may not add up to totals.

Note: An asterisk \* indicates less than .05 percent of women officers serving in designated category.

## V. CONCLUSIONS AND RECOMMENDATIONS

### A. CONCLUSIONS

There appears to be no clear answer in published literature as to why the Navy has had so much difficulty achieving its mandated black officer goals. Indeed, the Navy has struggled for almost two full decades to raise the level of black representation in its officer corps to six percent--an objective that is not expected to be achieved until sometime around the start of the next decade [Refs 5 and 13]. Specific figures have never been given as to the number of women that must be included to achieve these officer goals; but the data presented here indicate that it may be easier to recruit black women than black men for commissioned service in the Navy. As of 1990, minorities comprised slightly over one-fifth of all women in the Navy officer corps, including 10.4 percent for black women, 3.4 percent for Hispanic women, and 6.5 percent for other minority groups.

The number and proportion of black and other minority women in the Navy are increasing, and minority women are coming from a more diverse range of commissioning sources than in the past. For example, although Hispanic women have been commissioned through the Naval Academy at a relatively low rate, the percentage of black women officers commissioned through this source during the 1980s has been comparatively high. For women officers commissioned through ROTC programs,

the percentage of black women is double that of their white counterparts.

Black women officers and most women from other minority groups tend to stay in the Navy at higher rates than that of white women. For example, over 28 percent of black women officers commissioned in 1976 were still on active duty in 1990, compared with almost 25 percent of whites and less than 23 percent of Hispanics. Although the same trend occurred for those commissioned in 1985 (as of 1990), the percentages were similar for black and white women officers.

There is some evidence that minority women tend to be assigned to jobs that are somewhat different than those of white women--at least from the percentage distributions examined here. There is no explanation as to why this is occurring--whether it is by choice or because of Navy selection or assignment criteria--but black women, for example, tend to be in greater proportion in administrative occupations. This may reflect a combination of the choice factor and assignment policy, because minority women tend to be conspicuously absent from technical areas. (This has implications for the downsizing of the force, as discussed below.)

When looking at grade distributions, one can see that more women are being promoted to the ranks of Lieutenant

Commander and above. This is not surprising, considering the fact that promotions within the Navy are time-dependent and the increasing participation of women in the officer corps is a relatively recent phenomenon. Although higher proportions of white women than minority women are found at the levels of Commander and above, this could be attributed to the fact that white women have been serving in the officer ranks for longer periods and in larger numbers.

Finally, trends in occupational assignments show that, from 1972 through 1990, women saturated the health care and administrative areas. Policy changes allowed some women to move into other occupations in 1980; however, by 1990, the trend reversed, and women were again concentrated in health care and administration. Furthermore, the data show that the proportion of black women serving in these two occupations was the largest of all racial/ethnic groups by the end of fiscal 1990.

#### **1. A Look Ahead**

Overall, this study shows a very positive trend occurring for minority women, particularly blacks. Black representation in the Navy's officer corps has grown at a rate far greater than that of all other racial/ethnic groups over the same period. In addition, increasing proportions of all racial/ethnic minorities will undoubtedly be found in ranks

beyond that of LCDR, if the current retention patterns continue into the next decade.

On the other hand, the Navy does not appear to be the service of choice for most black men or women seeking a military commission, as evidenced by statistics and historical accounts. At the same time, black women officers could be the most likely candidates for discharge from the Navy in the event of a force reduction. This is based on the fact that black women tend to have the lowest qualifications in technical fields, and often do not possess the skills required for performing technically-oriented Naval jobs.

It is expected that the Navy will implement more rigid entrance requirements in the near future. As previously discussed, the vast majority of women officers can still be found serving in administration or health care occupations. In addition, women are excluded from serving aboard combatant vessels. Many observers believe that this may ultimately make women a likely target of the reduction-in-force--though Navy officials have categorically stated otherwise. Nevertheless, because black women officers are more concentrated than their white counterparts in the non-technical occupations, they may suffer the highest rate of force-reduction "casualties."

If this occurs, the Navy will continue to have problems reaching its goal of six percent black officer representation,

due to insufficient numbers of black men being commissioned and the added difficulties faced by black female candidates. Moreover, with the image of the Navy being somewhat negative in the black community, it may be difficult to convince black college graduates, male or female, to seek a commission in such a traditionally "unreceptive" service [Ref 5].

#### **B. RECOMMENDATIONS**

As stated in the introduction, this study is exploratory. It merely attempts to break some new ground and clear a path for further research.

The literature review has revealed little information on the participation of minority women in the Navy, especially the officer corps. Further research could put a dent in this dearth of material by tracking cohort groups of minority women naval officers over time. Since the population of black, Hispanic, and other minority women officers commissioned each year is so small, this should not be a difficult task to perform. If done properly, the Navy can determine what causes so many minority women officers to be released from active duty at the Lieutenant and Lieutenant Commander flowpoints.

A second recommendation is that the Navy conduct further research through the implementation of "check-and-balance" initiatives that will increase minority officer

representation. For example, a higher goal than six-percent for black officers could make the six-percent achievable by forcing recruiting commands to solicit greater numbers of black applicants for officer commissioning programs.

Moreover, more research should be conducted in the area of major occupational categories to help explain the conspicuous absence of minority women officers from the Navy's technical jobs. Finally, additional research is also needed for possible avenues to recruit more minority women to serve in technical fields.

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