



ACQUISITION RESEARCH PROGRAM SPONSORED REPORT SERIES

Bias Against Women and Minorities in the United States Marine Corps Awards and Decorations Program

June 2022

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Thesis Advisors: Dr. Paul Lester, Associate Professor
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Department of Defense Management

Naval Postgraduate School

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Prepared for the Naval Postgraduate School, Monterey, CA 93943

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ABSTRACT

The purpose of this study is to analyze the level of implicit bias against women and minority active-duty members within the Marine Corps awards and decorations program. Data provided by the Defense Manpower Data Center is utilized in performing a statistical analysis of awards and decorations awarded to individuals by the Marine Corps from September 2015 to September 2020. The data includes twenty-one distinct awards for heroism and performance. The analysis compares active-duty Marine Corps members by rank, and cross-references those individuals based on gender and race to analyze the disparity in number of awards received by females and non-Caucasian males compared to their male Caucasian counterparts. The analysis shows that Hispanic and Black officers as well as their enlisted counterparts received far fewer awards than expected. Conversely, female officers and female enlisted received far more awards than expected. This study results in initial insights into implicit bias taking place specifically in the Marine Corps and provides recommendations for prevention and correction in the active-duty environment.



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LIST OF ACRONYMS AND ABBREVIATIONS

DMDC	Defense Manpower Data Center
DOD	Department of Defense
DoDI	DOD Instruction
IAT	Implicit Association Test
IB	Identity-Blind
IC	Identity-Conscious
USMC	United States Marine Corps



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I. INTRODUCTION

This capstone provides an overview of the impact of implicit bias within the United States (U.S.) military and the structure of the Marine Corps awards and decorations program. This chapter focuses on how racism and sexism have affected the U.S. military and what policies have been implemented to erase such behavior and define implicit and explicit bias. This project examines the potential prevalence of implicit bias in awarding and decorating women and minorities in the United States Marine Corps. Results of the research are used to generate recommendations toward equal opportunity in performance and heroism awards for women and minority servicemembers in the Marine Corps.

This chapter focuses on how racism and sexism have affected the U.S. military and what policies have been implemented to erase such behavior and define implicit and explicit bias. It will also explain the use of “race” and “ethnicity” as defined by the Department of Defense.

A. BACKGROUND

While explicit acts of racism or discrimination infrequently occur in the United States Armed Services, bias based on race and gender is still present. Despite efforts to create an equal opportunity environment in the military for women and place women in combat roles the military remains a male-dominated organization and culture (Karmack, 2016). For example, as recently as March 2017, Marines United, a private Facebook page consisting of 30,000 active-duty and retired members of the United States Armed Forces, was exposed to distribute hundreds of explicit private photos of female service members from every branch of the military (Brennan, 2017). Following the revelation of misconduct, the Marine Corps established a task force to support victims, enforce accountability, and train the force (U.S. Marines, 2018). While the Department of Defense was quick to condemn these behaviors and pursue legal action under the Uniform Code of Military Justice against the perpetrators, it still faces calls to overhaul internal practices to root out racial bias and promote diversity and inclusion.



The Defense Department's Diversity and Inclusion Board presented a report towards the end of 2020 that outlined methods to promote racial and cultural diversity in the military (Department of Defense [DOD], 2020; U.S. Naval Institute, 2020). The survey revealed that "the active component enlisted corps is slightly more racially and ethnically diverse than its U.S. civilian counterparts" (DOD, 2020, p.7). Additionally, it found that the "civilian population eligible to become commissioned officers was less racially and ethnically diverse than the civilian population eligible for enlisted service" (DOD, 2020, p.8). Furthermore, the report stressed the importance of racial diversity throughout all military services to ensure it appropriately reflects the demographics of the United States.

As the Department of Defense has worked diligently to root out overt discrimination and promote diversity and inclusion practices, less has been done to curb implicit and subjective behaviors that marginalize underrepresented groups within the services (Donald, 2018). For example, within the U.S. Marine Corps, Commandant Berger stated that "the Marine Corps will become a more capable force as it diversifies on many levels, including diversity of thought, culture, and ethnic background" (Schogol, 2020). By underlining his opinion that once "trust and morale increase in a team, communication, productivity, and creativity will also increase," the Commandant's statement demonstrates the importance of diversity to the Marine Corps (Schogol, 2020). Moreover, the Commandant hopes to eliminate implicit and explicit prejudice and judgments among Marines by focusing on expanding the diversity within the force. Banaji et al. (2003) explain that "[because] implicit prejudice arises from the ordinary and unconscious tendency to make associations, it is distinct from conscious forms of prejudice, such as overt racism, or sexism" (p. 58). As a result of implicit biases, which are difficult to detect/correct, within the Marine Corps, certain people benefit, and other people are penalized.

The Office of Management and Budget (OMB, 1977) divides race into five categories: "White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander," and "White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander." The government distinguishes between ethnicity and race by dividing ethnicity into two categories: "Hispanic or Latino" and "not Hispanic or Latino." These definitions of race



will be used in this study to determine the current state of the Marine Corps and areas where it needs to improve.

Data from the 2020 Demographics Report (DOD, 2020) shows that the DOD military force has 398,546 (18.7%) female members, out of a total military strength of 2,129,777; 16.9% of active-duty enlisted personnel were female, up 2.2% from 2000, and 18.9% of all active-duty officers were female up 4.5%. The Air Force has the most significant percentage of female active-duty members with 21.1%, while the Marine Corps has the lowest rate of female active-duty members with 8.9%. Additionally, the report shows that

Approximately one-third (31.1%) of Active-Duty members (415,414) identify themselves with a racial minority group (i.e., Black or African American, Asian, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Multi-racial, or Other/Unknown). The percentage of Active-Duty members who identify themselves with a racial minority group increased from 2010 to 2020 (from 31.4% to 32.6% of enlisted members and 22.7% to 24.2% of officers). From 2015 to 2020, the percentage of enlisted members who identify themselves with a racial minority group decreased (by 0.6%), while the percentage of officers who identify themselves with a racial minority group increased (by 1.4%). The overall ratio of enlisted personnel who identify themselves with a racial minority group (358,585) to officers who identify themselves with a racial minority group (56,829) is 6.3 racial minority enlisted personnel for every one racial minority officer. Regarding ethnicity, 17.2 percent of Active-Duty members identify themselves as being of Hispanic or Latino ethnicity. (DOD, 2020, p. iv)

This highlights how women and minorities are underrepresented in the DOD and the Marine Corps, particularly at the highest levels of leadership.

Prior research conducted at the Naval Postgraduate School showed that within the Air Force awards and decorations program Black officers and enlisted members received far fewer awards than expected, as did female and Asian officers (Stark, 2021). The study resulted in initial insights into implicit bias in the Air Force. However, one could logically assume that the other services with similar award policies would present similar results. Therefore, issues concerning discrimination within the Marine Corps may be evident in data for performance and heroism awards since little to no research explores how implicit



bias may be impacting the military awards system. Furthermore, any data highlighting implicit bias could catalyze correcting discriminatory practices within the Marine Corps awards and memorialization program and other programs that could improve recognition, performance, retention, and recruitment of minorities within the Marine Corps. The need to combat prejudice is another reason why increasing diversity within the Marine Corps is crucial. Discrimination happens when people are treated unfairly because of their group membership; discrimination can be deliberate or accidental (Krieger, 1995). As America's demographic makeup shifts, the Marine Corps must adapt to guarantee it is not mistakenly discriminating against a particular race.

The population of the United States was 87% White at the beginning of the twentieth century (Sturm, 2021). The non-White minority mainly was made up of Black Americans who lived in rural areas of the southern United States. By the conclusion of the twentieth century, non-Hispanic Whites accounted for fewer than 75% of the total population of the United States (Markides et al. 1997). Latinos account for approximately the same proportion of the minority population as Blacks. Asian people are also on the rise, and there is a small but growing American Indian community. It is estimated that by the middle of the twenty-first century, non-Hispanic Whites will still be the majority, but that majority will continue to erode within the United States (Perez & Hirschman, 2009). Hispanics will account for roughly one-fourth of the people of the United States by 2050 (Suro & Passel, 2003). African Americans, Asian-Americans, and American Indians will account for about one-fourth of the combined population (Jones et al. 2021).

Clear terminology is especially important in any demographic analysis, and in the current thesis terms such as race, minority (or minority group), ethnicity (or ethnic group) and gender are used. Race refers to the classification of individuals based on inherited physical characteristics, such as hair texture or skin color, that are thought to be widespread among people of similar ancestry. Only the three most common races in the Marine Corps are observed in this study: White, Black, and Asian. The Department of Naval Diversity (2020) identifies the following races in their annual report: White, Black, Hispanic, Asian/Pacific Islander, and Native American, and this thesis mirrors that usage.



The term “minority” was commonly used in the 1990s to refer to major racial and ethnic groups: African Americans, American Indians, and Alaska Natives. According to Young (1982), a subgroup is a group of people whose number is smaller than a larger, more prevalent group due to cultural norms, race, religion, ethnicity, or other factors. By this definition, people who identify as female, Black, Asian, Hispanic, or Latino are included in the study’s minority groups. To put it another way, “minorities” refers to people who are not White males; White males make up most of the Marine Corps with minorities making up a small percentage of active-duty.

A community-type group of persons who share the same culture, or descendants of such people who may or may not be members of the same culture but who identify with this ancestral group, is referred to as an ethnicity (or ethnic group) (Isajiw, 1992, p. 6). The Marine Corps treats ethnicity as a distinct feature from race and keeps track of it separately. This includes Mexicans, Puerto Ricans, Cubans, Latin Americans of Hispanic Descent, and Others of Hispanic Descent, among other groups.

Gender refers to the biological sex of a military member as defined by demographic data collected for this study. Therefore, only male and female gender observations were included in the data collection.

B. PURPOSE

The primary purpose of this study is to perform an analysis of Marine Corps personnel policy and awards to date to identify areas where implicit bias may be occurring within the military awards process. To do so, I will compare the frequency of performance and heroism awards proffered to female and racial/ethnic minority members of the active-duty Marine Corps with the frequency of performance and heroism awards submitted to their majority counterparts. The comparison is meant to test for a statistical disparity in the percentage of awards received by women and minorities. If such a disparity exists and displays a robust trend over time, it could prove that bias impacts the number of decorations awarded to women and minorities. Moreover, findings could help lead the Armed Services to update policies and procedures to eliminate bias in the awards and decorations programs within the DOD.



C. IMPLICIT BIAS

According to FitzGerald and Hurst (2017), “implicit biases involve associations outside conscious awareness that lead to a negative evaluation of a person on the basis of irrelevant characteristics such as race or gender” (p.2). These biases can affect how people understand their own experiences, which can change how they act, interact, and make decisions. Because implicit biases are difficult to detect (both in oneself and through observation), looking to observable outputs (such as award recognition) might be a way to illuminate their presence. Conversely, as described by Greenwald & Banaji (1995), the term “explicit bias” refers to attitudes or beliefs that a person is aware of.

D. POLICY

The Navy and Marine Corps Awards Manual (U.S. Navy, 2019) provides “guidance and regulations concerning awards for recognizing individuals and units in the Naval service” (p.1-1). The Department of the Navy military awards are used “to recognize deserving Service Members for acts of heroism, exceptionally meritorious achievement or service, and arduous or otherwise special service” (U.S. Navy, 2019, p.1–1). The manual defines personal military decoration (PMD) as “discretionary honors conferred upon individuals who have distinguished themselves by acts of valor or non-combat heroism, or by exceptionally meritorious achievement or service” (2019, 1–1). Therefore, “to merit a PMD, an act or service must have been above and beyond average expectancy, at which point a decision is made on whether to nominate a servicemember” (2019, 1–1):

A nomination for a PMD may be officially originated by a commissioned officer for the U.S. Armed Forces, who was senior in grade or position to the awardee at the time of the distinguishing act or the period of meritorious service. A nomination for a PMD may also be originated by a DOD civilian, equivalent to a GS-11 or above, who was senior in grade and position to the awardee. A civilian originator must be in a supervisory position to the awardee at the time of the distinguishing act or period of meritorious service. If the originator is not the individual’s commanding officer (CO), the nomination must be forwarded to the CO for endorsement and further forwarding up the chain of command to the award approval authority. (U.S. Navy, 2019, p. 1-2)



Additionally, per DON policy (2019), the awarding authority will act on the level of an award they have authority over; if the authority does reside within their position, they are to forward the award to the subsequent awarding authority. Only the awarding authority may:

- (a) Approve the PMD nominated.
- (b) Approve the lower award.
- (c) Approve a higher (upgrade), if so empowered, or recommend a higher award to the appropriate awarding authority farther up the chain of command.
- (d) Disapprove the nomination outright (code ZZ) or,
- (e) Return the recommendation for further clarification or justification. (U.S. Navy, 2019)

In a typical Marine Corps unit, an officer of higher rank than the servicemember being nominated will submit a citation and summary of action via improved awards processing system (iAPS). Initial submission will be screened by the unit's award administrator and forwarded to the command's award board once validated for completeness. The award will go through successive command levels for approval/endorsement until it reaches awarding authority. Once the award receives final disposition by the command board, the unit awards administrator submits awards to Manpower Management Military Awards Branch (MMMA). MMMA reviews awards and then processes awards into the Unit Diary of the servicemember. The final step in award management is forwarding awards from MMMA to Manpower Management Records and Performance Branch (MMRP).

E. METHOD

Utilizing data from the Defense Manpower Data Center, this study evaluates the demographics of award recipients of twenty-three different types of heroism and performance awards (see Table 1) over ten years. Comparing this data to the relative population of the Marine Corps for each year of the data set will provide a baseline to identify if a disparity exists between women and minorities and their male and Caucasian counterparts over time. The expected number of awards per demographic group can be calculated by determining the baseline percentage of awards for the entire population. Then



the actual number of awards received can be compared to the number of awards expected to identify the degree to which certain groups are below or above the baseline.

Table 1. Marine Corps Awards for Heroism and Performance. Adapted from U.S. Navy (2019).

Heroism Awards	Performance Awards
Medal of Honor	Defense Distinguished Service Medal
Navy Cross	Defense Superior Service Medal
Silver Star Medal	Legion of Merit
Distinguished Flying Cross	Bronze Star (without V device)
Navy and Marine Corps Medal	Defense Meritorious Service Medal
Bronze Star (with V device)	Meritorious Service Medal
Purple Heart	Air Medal (without V device)
Air Medal (with V device)	Navy and Marine Corps Commendation Medal (without V device)
Navy and Marine Corps Commendation Medal (with V device)	Joint Service Commendation Medal
	Navy and Marine Corps Achievement Medal
	Joint Service Achievement Medal
	Military Outstanding Volunteer Service Medal

F. SUMMARY

This chapter provided an overview of relevant policy within the awards program in the Marine Corps and why military awards might serve as a conduit in tracking implicit bias. Specifically, the goal of this project is whether implicit bias affects women and minorities in military awards and decorations programs. The following chapter will provide background information on gender- and race-based biases and how they impact the United States military. It will also present findings on diversity and inclusion efforts in the military.



II. LITERATURE REVIEW

This chapter aims to provide background information on gender and racial biases and how they affect the United States military, specifically the United States Marine Corps. This literature review will explore the concept of bias, specifically how implicit bias factors into the military awards system, diversity and inclusion efforts, and policy impacts on women and minorities in the military.

A. BIAS

According to the Merriam-Webster dictionary the term bias is defined as a “disproportionate weight in favor of or against an idea or thing, usually in a closed-minded, prejudicial, or unfair way, influencing decisions at all levels of an organization.” Additionally, Merriman et al. (1989) argue that at infancy and through adolescence individuals may form biases in favor of or against a person, a group, or a belief. According to Jeffrey Pickens (2005), individual experiences have been shown to influence how we perceive the world and impair our ability to grasp the unique experiences of others. As a result, most people are either unaware of their biases or feel they do not foster them. There are two types of bias discussed in the literature: explicit and implicit bias. It is important to distinguish between explicit and implicit biases because doing so makes it easier to identify prejudices formed, projected, and placed in various ways.

Individuals display explicit bias when they are aware of their feelings and attitudes toward distinct groups and act on them (Podsakoff, 2003). Therefore, the person expressing explicit bias is conscious of their sentiments and opinions. Several studies have found that explicit forms of uneven treatment contribute considerably to women’s and racial and ethnic minorities’ underrepresentation (Swim et al., 1995). Sexual harassment, unequal compensation, and bias in promotions and work assignments are the most visible types. According to surveys conducted by the Pew Research Center and the American Association of University Women, most women working in science, technology, engineering, and mathematics (STEM) jobs report experiencing workplace discrimination because of their gender, compared to one-fifth of men in STEM jobs (Pollack, 2013).



On the other hand, implicit bias is caused by how one's brain automatically processes information and conditions a certain response to a particular event (Greenwald & Banaji, 1995); influencing social judgments, behaviors, and attitudes, leading to prejudice stereotyping (Gawronski, 2010). In addition, implicit biases involve associations outside conscious awareness that negatively evaluate a person based on irrelevant characteristics such as race or gender. Taken together, these perspectives can influence an organization's growth and productivity. Even institutions with well-intentioned principles such as meritocracy have been shown to benefit specific demographics more frequently than not, due to implicit biases, even when performance levels, titles, and experience are equal amongst all demographics. Studies of implicit bias indicate that minority service members are treated unequally, impacting interactions, frequently with unintentional discriminatory consequences resulting in racial, ethnic, socioeconomic, or other disparities.

Greenwald et al. (1998) utilized the Implicit Association Test (IAT) to examine how fast and accurately people link different social groupings with positive or negative attributes, revealing how widespread implicit bias is and how it might influence social behavior and decision-making. The study revealed that even people with the best intentions can be swayed by hidden views, resulting in inequities, specifically when it comes to performance and heroism awards. Applied to the current thesis, these biases provide explanatory power to why demographic disparities exist in the military performance award programs.

B. MERITOCRACY AND BIAS IN THE UNITED STATES MILITARY

Through diversity training, education and holding individuals accountable for biases, the Department of Defense promotes an equal opportunity workplace that aspires to equality. The Department of Defense personnel system is meritocratic in nature, where authority is vested in individuals based on talent, effort, and achievement without bias. However, research reveals that individuals can be biased without realizing it, impacting decisions based on preconceptions that can have far-reaching adverse effects on an individual's career and workplace status (Gaertner & Dovidio, 2005). Members of the United States military are frequently evaluated throughout their careers by various



assessors, such as individual awards and decorations. Moreover, implicit bias has ramifications beyond respective careers; when its effects are combined, they directly impact the Marine Corps' operational preparedness.

Even though most individuals believe they are free of prejudice, implicit bias can manifest itself in various ways, especially in a group composed of majority members (Banaji & Greenwald, 2013). According to Greenwald et al. (1998), who used the Implicit Association Test to examine White college students' implicit racial attitudes towards Whites and Blacks, 75% of people observed in their study that used the Implicit Association Test to examine White college students' implicit racial attitudes towards Whites and Blacks exhibited implicit bias. Based on this data from the study and the 2020 Demographics Annual Report, which found that within the Marine Corps, 79% of active-duty members were White, and 91% were men, implicit bias would favor individuals in those demographics over underrepresented demographics, which in turn could result in measurable inequalities. As a result, one of the most successful ways to eliminate implicit bias is to adjust organizational structures and procedures to create environments where discrimination is less likely to occur (Carter et al., 2018). According to Konrad et al. (2021), diversity and meritocracy are best viewed as complementary concepts that educate and support one another. Organizations that fail to engage in both will create an unjust and suboptimal workplace. Therefore, organizational structures that implement meritocratic standards can work towards eliminating discrimination by requiring positions and goods to be distributed solely per individual merit while continuing to emphasize the importance of diversity.

A meritocracy is a power structure in which an individual's progress and reward distribution is determined by their abilities and achievements rather than familial ties, seniority, race, gender, or socioeconomic class (Liu, 2011, pp.387). Konrad and coauthors (2021) examined how organizations might cope with diversity and inclusion within a meritocratic framework by exploring how implicit bias exists and permeates within organizations. Furthermore, the authors lay out a strategy necessitating the equal valuation of diversity and meritocracy in an organization through what the authors describe as "organizational ambidexterity" which balances the combination of practices to fulfill



diversity and meritocracy pressures simultaneously. This type of management within the Marine Corps would be ideal due to the very nature of the military system having been established as a meritocracy and representative of the diverse U.S. population. Moreover, meritocratic ideals serve as a foundation of advancement within the U.S. military. The Marine Corps, in its Diversity, Equity, and Inclusion Strategic Plan (2021), continues to attest that “to remain [the] nation’s modern force in readiness, [it] requires the most capable Marines who offer diverse perspectives and experiences to innovate better and grow [its] capabilities to conquer adversaries and defend the United States of America.” As a result, for an organization to be considered a meritocracy, it must emphasize both diversity and performance; the challenge that an organization like the Marine Corps faces as it seeks to improve opportunities for marginalized groups is to avoid undermining the perception of fairness among advantaged groups.

If an institution like the Marine Corps prioritizes talents and abilities, selecting the best personnel will require sifting through a diverse talent pool of diverse and distinctive individuals without bias. Additionally, selecting a diverse talent pool will require the Marine Corps to establish a transparent board and selection process while monitoring demographic trends in performance evaluation. Konrad et al. (2021) contend that “when senior leadership is composed almost exclusively of advantaged groups, such homogeneity raises questions regarding whether the organization is meritocratic” (p. 7). The authors further explain that “in sourcing talent from the full range of identity groups, the organization can select the highest quality talent from every group, raising the overall competence of organizational members...because it strengthens organizational meritocracy” (pp. 8–9). However, pre-existing societal biases can quickly creep into even the most meritocratic organizations, mainly if they are dominated by a specific demographic, in the Marine Corps case, White men. Given this, awards for performance and heroism can only be based on individual achievements if the effects of implicit bias from the in-group are mitigated.

Individuals can categorize themselves into social groupings and develop a liking for their in-group. In-group favoritism begins early in life and has been observed in children of all genders, races, ethnicities, languages, nationalities, and religions (Aboud, 2003).



Moreover, this type of prejudice has been found to have a considerable impact on organizations that claim to be meritocratic yet unknowingly overlook significant underlying biases in their talent management processes (Sommerland, 2012). According to Konrad et al. (2021), balancing Identity-Blind (IB) and Identity-Conscious (IC) practices maintain meritocracy and diversity within an organization. IB practices ensure that decisions across the organization are the same by masking the social identities of those being evaluated to increase the impact of merit-based decisions. Even though identity-blind methods can help to prevent unintended prejudice and ensure that decisions are made exclusively based on merit, they offer little to assist disadvantaged groups in an unequally distributed organization. Conversely, IC practices are designed to intentionally increase success efforts for the represented group and close the opportunity gap that exists; this type of practice takes affirmative steps to consider women and minorities in the hopes of increasing their representation within the organization (Konrad & Linnehan, 1995; Self et al. 2015). While identity-conscious activities are intended to foster diversity, non-identity-conscious behaviors are not. Specifically:

Because I.B. practices focus on competence outcomes resulting from meritocracy while IC practices focus on process integrity for removing barriers to diversity, neither IB nor IC practices alone are sufficient for addressing the diversity-meritocracy paradox. Rather, systems incorporating both IB and IC practices are needed to develop both/and solutions which support both competence outcomes and process integrity in a balanced way. (Konrad et al., 2021, p. 12)

In June 2020, the U.S. Army, intending to implement IB practices, eliminated the requirement for official pictures on officer selection boards to combat implicit biases. When the Department of the Army photo was removed, researchers discovered less variation in voter scoring, implying that voters evaluated candidates more equally across the board. Additionally, voters took less time to make decisions on each file, and minority and female outcomes improved. Subsequently, in July 2020, the Secretary of Defense issued a memo instructing the Defense Department to “remove photographs from consideration by promotion boards and selection processes and develop additional guidance, as applicable, that emphasizes retaining qualified and diverse talent” (Esper, 2020,). To ensure compliance, the Marine Corps, as of September 1, 2020, per



MARADMIN 491/20, stated that it would “no longer require photographs for promotion boards and selection processes relevant to the assignment, training, education, and command” (p.2).

C. DIVERSITY AND INCLUSION EFFORTS IN THE MILITARY

Diversity is important because it helps the U.S. military recruit and retain personnel from a wide range of racial and cultural origins, giving the military access to talents and abilities found in major sections of the U.S. population (Stevens, 2012). Additionally, variety supports diverse points of view in problem resolution and minimizes the tendency for groupthink (Mannix & Neale, 2005). On the other hand, individuals who have similar characteristics tend to create strong in-group relationships inside various groupings, which according to research, can come at the cost of the group (Richard & Carlisle, 2012). In some cases, the presence of in-group boundaries has been shown to reduce collective productivity, mainly when there are biases between subgroups due to interpersonal conflict; for a military unit, this may jeopardize the unit’s capacity to perform under duress (Jehn & Greer, 2012). Furthermore, it has been exhibited that the ramifications of implicit in-group bias, overclaiming of credit, and conflicts of interest on an organization’s performance can become significant and have long-lasting effects (Bazerman & Tenbrunsel, 2011). To address perceived barriers to diversity, the U.S. Secretary of Defense, on June 19, 2020, issued a memorandum, “Actions for Improving Diversity and Inclusion in the Department of Defense,” which urged U.S. military departments and DOD leaders to investigate bias and prejudice that have “direct and indirect impacts on the experience of our minority members and their representation in our ranks, especially in our officer corps” (Esper, 2020). Diversity, and steps to eliminate implicit bias, are critical topics for the Marine Corps because the organization must understand the importance of diversity and how implicit bias impacts the demographic composition of the organization.

Today’s Marine Corps is 58% White and 42% minority; from 2010 to 2020, enlisted diversity grew from 33% to over 45%, and officer diversity grew from 16% to 34%. Additionally, female composition continues to climb each year and is currently around 9%. These trends are likely to continue. Consider the following statistics: by 2050,



it is predicted that the White population in the United States will decline from 70% of the current population to 50%, and the Hispanic population will more than double from 12% to approximately 25% of the total population (Passel, 2011).

According to Moore (2021), non-White service members accounted for over one-third of all active-duty enlisted and almost half of all senior enlisted in the military during 2021. Additionally, Black service members were overrepresented in both the active and reserve components compared to the general population of the United States, Asians and Hispanics were underrepresented. However, when comparing the officer corps and the general population of the United States, racial and ethnic minorities were underrepresented, particularly at the senior leadership level. For example, persons of Hispanic origin make up approximately 16% of the population and 13% of the active-duty enlisted corps in the United States military service; Hispanic servicemembers make up 6% of the officer corps and less than 2% of General/Flag officers (Rodriguez, 2020).

D. POLICY IMPACTS FOR WOMEN AND MINORITIES IN THE MILITARY

Leaders in diverse organizations must create engaging settings that blend disparate knowledge bases, experiences, and information to bridge gender and racial divides; standards, policies, and rules must consider the increasing diversity of the workforce. The U.S. military has been predominantly White and male throughout history. However, it is now becoming as varied as the country it is supposed to safeguard. According to 2020 Census data, the United States is more diverse and multiracial than ever. In 2020, people of color were 43 % of the total U.S. population, up from 34 % in 2010. Over the last decade, the U.S. military has taken considerable measures to become a more diverse and inclusive organization that attracts the best talent in the country. While rules barring women from serving in combat units were overturned in the early 1990s, women were until recently barred from specific military jobs and units, particularly ground combat groups (Dunivin, 1994, p. 535). The Department of Defense lifted the ground combat limits for women allowing them to serve in integrated environments and units on January 24, 2013, with the goal that all services would comply with the mandate by January 1, 2016. The Air Force, Navy, Marine Corps, Army, and Special Operations Command have all been given



directives to develop plans for examining all closed vocations and units, as well as the entry and assignment standards for those units.

Currently, women make up slightly more than 15% of the active-duty military in the Department of Defense (GAO, 2020). In 2014, women made up roughly 47% of the civilian workforce in the United States. Female presence in the military has increased with development in traditionally male-dominated civilian industries. For example, in the civilian police service the percentage of female police officers has risen from 3.7% in 1970 to 14.8% in 2010 (Kamarck, 2017). Despite this, women are far less likely than males to serve in the Marine Corps, with only 7% of women in the military serving as Marines compared to 16% of men (Patten & Parker, 2011). In other words, the Marine Corps is chosen by less than half as many women as men who join the military. Women made up roughly one-fifth of all officers in the Air Force, Navy, and Army in 2015, but only 9% of Marine Corps officers. Female service members make up around 18% of active-duty jobs in the Navy and Air Force, 13% in the Army, but only 8% in the Marine Corps. Even though women make up roughly 20% of the officer corps, they hold less than 10% of the highest leadership roles (Questor & Gilroy, 2002). There are a variety of reasons for disparities between female representation in General and Flag officer positions and the officer corps. According to Blanche (2021), restrictions on women's assignments, particularly to combat-related vocations and units, hindered, and continue to restrict, women's ability to advance to the highest levels of leadership due to biased judgment.

Konrad and coauthors (2021) devote considerable attention to investigating organizational ambidexterity and the beneficial relationship between meritocracy and diversity efforts at the executive level. Their research expands on the observation made by Evertson & Nesbitt (2004) that women in the military are seen differently than men and are not expected to participate in top leadership capacities. Because of the negative performance expectations that come from the notion that women lack the attributes that are thought necessary for successful performance in male gender-typed professions and responsibilities, these forms of descriptive gender stereotypes foster gender bias (Heilman, 2012).



According to the Defense Manpower Data Center, White officers account for 73% of all active component officers, compared to 66% of the eligible civilian population; African American officers account for 8% of all active component officers, Hispanic officers account for 7%, and Asian officers account for 8%, compared to civilian counterparts who account for 9%, 10%, and 12%. Kamarek (2017) notes that racial diversity declines in the military's upper echelons with women; additionally, "racial, and ethnic minorities remain underrepresented in the military, particularly at the highest levels of command" (Rodriguez, 2020). While the officer corps is equally diverse as the general population, individuals in higher ranks across the services are disproportionately White (Council on Foreign Relations, 2020). For example, the Marine Corps is now 58% White and 42% minority; enlisted diversity increased from 33% to over 45% between 2011 and 2021, while officer diversity increased from 16% to 34%. Female diversity continues to lag but is growing and is now just over 9%. These are encouraging developments, but there is still much work to retain and promote a more diverse, equitable, and inclusive force at all levels.

Many organizations have looked inward to identify the practices and cultural norms that contribute to their lack of diversity, equity, and inclusion; this is especially true in the current military context. Yet, despite significant effort within the military, initiatives to increase diversity among active-duty military members are not always practiced as designed and thus typically fall short of their intended goals. According to Hitt et al. (2017), organizations that publicly promote diversity tend to attract better-qualified minorities and women than organizations that do not. When diversity is promoted in the workplace and minorities feel as though they are part of the team, it becomes a recruiting tool for other minorities. Therefore, the case can be made that recruiting must encourage and foster diversity and inclusion throughout the organization for the Marine Corps to attract the most capable individuals.



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III. DATA AND METHODOLOGY

This research aims to demographically examine award and decoration rates among Marine Corps personnel to determine if the awards are distributed in a consistent way across demographics. The Defense Manpower Data Center (DMDC) provided the data used in this study. Microsoft Excel was used to examine the data. The Naval Postgraduate Institutional Review Board examined this study's protocol and determined the analysis of the data was not considered human subject research.

A. DATA

The demographics of all Marine Corps members who received awards for heroism or performance between September 2015 and September 2020 were used in this analysis. The information pertains to twenty-one distinct awards for work performance or heroism (see Table 2). To protect service members' identities, names of individuals included in the dataset were masked with a unique alpha-numeric code assigned by DMDC. Rank/grade, age, race, ethnicity, gender, marital status, education level, Military Occupational Specialty (MOS), and award date, were provided.

Members of the Marine Corps can self-identify using a variety of races and ethnicity codes; however, this study focused on the racial codes for White, Black, and Asian, as well as the ethnicity code for Hispanic or Latino, which includes people who identify as Mexican, Puerto Rican, Cuban, Latin American with Hispanic descent, and other Hispanic descent. Additionally, this study considered male and female genders and the broad rank categories of enlisted and officer.



Table 2. USMC Performance and Heroism Awards

Heroism Awards	Performance Awards
Medal of Honor	Defense Distinguished Service Medal
Navy Cross	Defense Superior Service Medal
Silver Star Medal	Legion of Merit
Distinguished Flying Cross	Bronze Star (without V device)
Navy and Marine Corps Medal	Defense Meritorious Service Medal
Bronze Star (with V device)	Meritorious Service Medal
Purple Heart	Air Medal (without V device)
Air Medal (with V device)	Navy and Marine Corps Commendation Medal (without V device)
Navy and Marine Corps Commendation Medal (with V device)	Joint Service Commendation Medal
	Navy and Marine Corps Achievement Medal
	Joint Service Achievement Medal
	Military Outstanding Volunteer Service Medal

B. METHODOLOGY

The primary purpose of this study was to examine the demographic distribution of performance awards within the Marine Corps. First, the awards rate is calculated for each year's total Marine Corps population (2015 – 2020) by restricting the data to specific awards for heroism or performance. The rate of awards is then calculated for each relevant group, including males, females, Whites, Blacks, Asians, Hispanics, officers, and enlisted personnel. The overall population's rate of awards is then compared to the rates of awards for each group to see if the rate is higher or lower than expected. Once these rates have been set for each year, changes in each demographic group can be noted, with a +/- "delta" number that can be compared across demographics significantly above or below the expected base rate.

The data were analyzed individually for officers and enlisted personnel. First, the awards rate for the total enlisted population and the rate for the total officer population were determined independently using the same procedure. Next, the awarding rates for males, females, and White, Black, Asian, and Hispanic/Latino people were selected. The

award rates were then examined by rank to see if different groups fared differently within officer and enlisted ranks.

C. OFFICER AND ENLISTED

The terms “officer” and “enlisted” refer to the military’s rank structure and personnel’s positions on that hierarchy scale. Officers are used to refer to commissioned officers in the military. Enlisted refers to any individual who holds a position lower than a commissioned officer. The data observations include Warrant officers as “officers” within the Marine Corps’ organizational framework. People in the rank structure depicted in Figure 1 provided the information used in this investigation.

United States Marine Corps Ranks

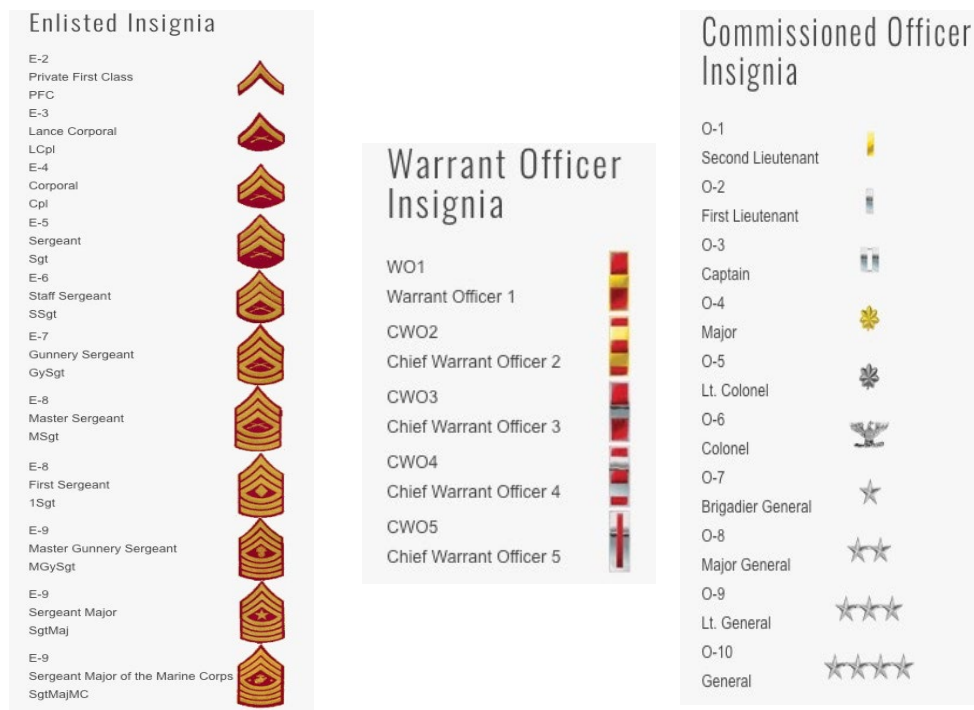


Figure 1. United States Marine Corps Ranks. Adapted from United States Marine Corps (2022).

D. ANALYSIS

The Defense Manpower Data Center provided the data set for the calculations. First, the total population of the Marine Corps for a given year was determined. For example, in September of 2015, the Marine Corps population was 183,417 people. Next, the number of specific performance and heroism awards given out that year was determined. The Marine Corps, for example, presented 25,409 performance and heroism medals in 2015. After that, the total number of awards was divided by the population to get a baseline proportion of prizes issued that year. In 2015, for example, the award baseline was 13.85%. The population was then reported for each relevant demographic group: male, female, White, Black, Asian, Hispanic, Latino, officer, and enlisted.

The number of awards given to individuals of those demographic groupings was then recorded, and a baseline was established. For example, in 2015, the population of White people within the Marine Corps was 145,797, while the population of Black people was 19,649. The projected number of awards for that demographic group was calculated by multiplying the White population (145,797) by the award baseline (13.85%). The actual number of awards observed is then compared to the expected value, yielding a delta value (the difference between the expected and observed values). The projected number of awards for Whites, for example, was 20,192, while the actual number was 19,092, or 1,100 fewer than expected. The baselines for each demographic category were then compared to the general population's baseline. This was performed by calculating a departure percentage by dividing the expected number of awards by the amount +/- from the expected. This was derived for Whites in 2015 by dividing 1,100 (the value of below expected awards) by 20,192 (the number of anticipated awards). The disparity indicates that in 2015, White people received 5.44% fewer awards than expected.

This comparison revealed the percentage of people who were either above or below the projected baseline for each group. For example, females, Blacks, Hispanics, and officers received more awards than expected in 2015 — females received around 8% or 160 awards above expected baseline. On the other hand, males, Whites, Asians, and enlisted were much lower than the baseline — enlisted received 20% or 4,485 awards below expected baseline (see Table 3).



Every year of the data set (2015–2020) was subjected to the same calculations. The data was then separated into an officer and enlisted categories. Baselines for awards were calculated every year, splitting the demographics by officer and enlisted to see if different genders, races, or ethnic groups performed differently by rank. Finally, the data was adjusted for length of service, resulting in baselines for all persons with less than five years of service. The baselines were compared once more to see if various genders, races, or ethnic groups performed differently depending on the number of years.

Table 3. Baseline Calculations for September 2015

Category	N	Expected # of awards	Actual # of awards	+/- Difference	% from expected
Male	169,336	23,458	23,298	-160	-1%
Female	14,081	1,951	2,111	160	8%
White	145,797	20,197	19,092	-1,105	-5%
Black	19,649	2,722	2,750	28	1%
Asian	4,851	672	665	-7	-1%
Hispanic	40,657	5,632	4,367	-1,265	-22%
Officer	20,648	2,860	7,345	4,485	157%
Enlisted	162,769	22,549	18,064	-4,485	-20%



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IV. RESULTS

Over six years (2015 – 2020), each demographic's percentage of awards received was compared to the baseline of awards for that year. The basic rate of awards was 8.48% across the six years observed. Officers received extremely high percentages of awards, averaging 89.89% above expected baseline, while enlisted received low percentage rates, averaging 11.52% below expected baseline. Whites received 2.09% fewer awards than expected, Blacks received 7.90% fewer awards than expected, Asians received 2.74% fewer awards than expected. Hispanics received 12.93% fewer awards than expected.

During the six years observed in the data set, males received fewer awards than the predicted baseline, averaging 1.75% fewer awards than expected, between a 1–2% margin across the six years. On the other hand, females received more awards than expected within the data set, averaging 18.81% during the observed period with highest rate at 28.07% and lowest at 8.22% above expected baseline. The average percentage above or below expected, and the total amount of awards above or below expected for each demographic group are displayed in Table 4. A visual representation of the average amount of awards above or below expected for each demographic is depicted in Figure 2. For example, over six years, Whites received 394 fewer awards than expected, while females received 214 more awards than expected.



Table 4. Percentage Difference from Expected Baseline and Total Difference Over 6 Years

Award Baseline	2015	2016	2017	2018	2019	2020	Average
	13.85%	10.49%	10.52%	8.70%	5.29%	2.01%	8.48%
Category	2015	2016	2017	2018	2019	2020	Average
Male	-0.66%	-1.53%	-1.62%	-1.99%	-2.02%	-2.66%	-1.75%
Female	8.22%	17.03%	17.44%	21.32%	20.77%	28.07%	18.81%
White	-5.47%	-4.00%	-3.38%	-1.47%	0.33%	1.48%	-2.09%
Black	1.03%	-0.91%	-8.80%	-11.05%	-10.90%	-16.77%	-7.90%
Asian	-1.04%	-5.57%	4.13%	-5.37%	-0.59%	-8.02%	-2.74%
Hispanic	-22.46%	-18.15%	-8.23%	-9.91%	-10.44%	-8.41%	-12.93%
Officer	156.91%	130.63%	127.87%	89.74%	32.45%	1.75%	89.89%
Enlisted	-19.87%	-16.61%	-16.54%	-11.67%	-4.22%	-0.23%	-11.52%

Category	2015	2016	2017	2018	2019	2020	Average
Male	-155	-270	-287	-294	-181	-88	-213
Female	160	265	285	297	183	91	214
White	-1,105	-612	-523	-190	26	43	-394
Black	28	-19	-182	-187	-112	-63	-89
Asian	-7	-30	23	-26	-2	-9	-8
Hispanic	-1,265	-774	-330	-345	-232	-72	-503
Officer	4,486	2,832	2,839	1,666	368	8	2033
Enlisted	-4,479	-2,837	-2,842	-1,666	-367	-8	-2033

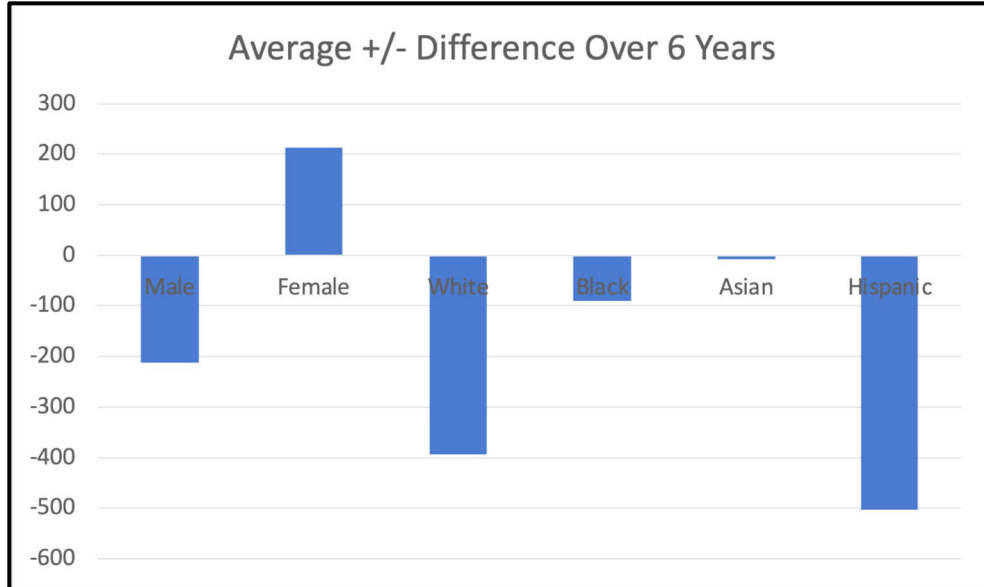


Figure 2. Average Number of Awards Above/Below Expected Over Six Years

The disparity in awards frequency between an officer and enlisted requires a closer examination. Not all awards for heroism or performance apply to all ranks, so we would expect, for example, that the Legion of Merit to be predominately awarded to senior officers and very senior noncommissioned officers. Likewise, the Navy and Marine Corps Achievement Medal is restricted by rank. According to the USMC Awards Manual (2019), the Navy and Marine Corps Achievement Medal “is a multipurpose decoration that may only be awarded to members of the Armed Forces in the paygrades O–4 and below” (p. 2–38). It is more likely to be received by enlisted members than officers based on the higher population of enlisted and the broader spectrum for which the medal can be awarded. From 2015 to 2020, enlisted members received between 1% to 2% more Navy and Marine Corps Achievement Awards than the expected baseline. Table 5 shows that enlisted members were awarded that decoration more often than officers, just as expected. All demographic groups, besides females, were close to baseline; females received, on average, 32.95% more Navy and Marine Corps Achievement awards than expected.

Table 5. Navy and Marine Corps Achievement Medal Percentage Difference and Total Difference Over 6 Years

Award Baseline	2015	2016	2017	2018	2019	2020	Average
	6.51%	5.12%	5.61%	5.82%	4.25%	1.77%	4.85%
Category	2015	2016	2017	2018	2019	2020	Average
Male	-2.75%	-2.70%	-3.99%	-3.13%	-2.33%	-3.15%	-3.01%
Female	32.50%	32.50%	44.32%	32.89%	24.50%	31.01%	32.95%
White	-3.04%	-3.00%	-0.89%	0.80%	1.90%	2.11%	-0.35%
Black	-2.63%	-2.63%	-3.17%	-9.61%	-10.86%	-16.06%	-7.49%
Asian	0.74%	0.74%	13.20%	-4.92%	-4.80%	-5.12%	-0.02%
Hispanic	-14.54%	-8.55%	4.73%	-1.43%	-5.00%	-7.17%	-5.33%
Officer	8.22%	8.22%	-8.37%	-16.37%	-29.75%	-36.18%	-12.37%
Enlisted	-1.04%	-1.04%	1.16%	2.09%	3.95%	4.75%	1.64%
Category	2015	2016	2017	2018	2019	2020	Average
Male	-303	-329	-378	-309	-168	-92	-263
Female	298	330	386	306	173	89	264
White	-289	-125	-73	69	120	54	-41
Black	-34	17	-35	-109	-90	-53	-50
Asian	2	0	40	-16	-12	-5	2
Hispanic	-385	-178	101	-33	-89	-54	-106
Officer	110	-88	-99	-203	-271	-137	-115
Enlisted	-110	89	106	200	276	134	116

However, this narrower set of analyses does not explain the disparity in overall awards received by officers versus enlisted members. The data accounted for rank, calculating award baselines for the isolated officer and enlisted populations. For the most part, the trends based on demographics remained largely the same for both officers and enlisted. Specifically, males typically received a slightly lower percentage of awards than expected, females received a much higher percentage of awards than expected, officers received a lower percentage of awards than expected, and enlisted received a slightly higher percentage of awards as expected specifically for the Navy and Marine Corps Achievement Medal.

For the data isolated by enlisted members only, males averaged 2.17% fewer than the expected baseline over six years, while females were 22.61% above the expected baseline. Whites averaged slightly below the predicted baseline over six years, while Blacks were 1.71% below the expected baseline. Asians averaged 4.67% below the expected baseline over six years, performing the worst in the percentage of expected awards received for the enlisted data. However, enlisted Hispanics averaged over 9.90% above the expected baseline. The average percentage above or below expected, and the total amount of awards above or below expected for enlisted members are displayed in Table 6.

Table 6. Enlisted Percentage Difference from Expected Baseline and Total Difference Over 6 Years

Award Baseline	2015	2016	2017	2018	2019	2020	Average
	11.10%	8.75%	8.78%	7.69%	5.07%	2.01%	6.46%
Enlisted (%)	2015	2016	2017	2018	2019	2020	Average
Male	-1.28%	-2.14%	-2.12%	-2.42%	-2.19%	-2.88%	-2.17%
Female	15.05%	23.74%	22.66%	24.81%	21.54%	27.88%	22.61%
White	9.51%	-5.99%	-4.39%	-1.82%	0.39%	2.05%	-0.04%
Black	13.48%	8.82%	0.36%	-6.54%	-9.12%	-17.27%	-1.71%
Asian	-4.18%	-8.53%	0.23%	-4.74%	-4.90%	-5.89%	-4.67%
Hispanic	2.56%	6.60%	19.24%	13.71%	9.24%	8.03%	9.90%
Enlisted (#)	2015	2016	2017	2018	2019	2020	Average
Male	-214	-280	-278	-279	-166	-84	-217
Female	211	277	277	274	162	80	213
White	1,147	-678	-502	-184	26	52	-23
Black	278	145	6	-92	-84	-61	32
Asian	-20	-33	1	-17	-12	-6	-15
Hispanic	92	188	515	337	157	55	224



The below-expected awards received by enlisted Black members are made more significant because 94% of all Black Marine Corps members are enlisted. Blacks have the highest enlisted-to-officer ratio among any demographic recorded. For Whites, 88% are enlisted, 86% of Asians are enlisted, and 72% of Hispanics are enlisted. It is essential to highlight that despite having most of its members within the enlisted force, Blacks/African Americans still received a lower percentage of awards than expected compared to other, such as females and Hispanics.

The disparity of award reception percentages is somewhat different from the data observed for officers. Females and Whites were above the expected baseline over six years (12.17%, 0.24%, respectively). Meanwhile, males, Blacks, Asians, and Hispanics were below the predicted baseline over six years (-1.07%, -3.69%, -3.75%, -50.96%, respectively). It is important to note that the population plays a significant role in the distribution of awards pertaining to the Marine Corps. For example, women make up less than 9% of the Marine Corps, and within that, only 10% of females are officers. Yet, female officers routinely received above the expected baseline awards rate over six years.

On the other hand, men account for 91% of the Marine Corps, with 12% of the men being officers. Yet, male officers and male enlisted received slightly fewer awards than expected. The data suggests that though males account for most of the Marine Corps, they do not receive more than the expected number of awards over the observed time. Asians account for the smallest percentage of officers in the Marine Corps at only slightly below 4% of all Marine Corps officers yet received 3.75% above the expected baseline rate for awards, and Hispanics account for a more significant percentage of Marine officers at 8% received -50.96% below the expected baseline for awards. On the other hand, Blacks, who account for 6% of Marine Corps officers, received 3.69% fewer awards than expected.

The average percentage above or below expected, and the total amount of awards above or below expected for officers over six years are displayed in Table 7.



Table 7. Officer Percentage Difference from Expected Baseline and Total Difference Over 6 Years

Award Baseline	2015	2016	2017	2018	2019	2020	Average
	35.57%	24.19%	23.97%	16.51%	7.00%	2.05%	18.22%
Officer (%)	2015	2016	2017	2018	2019	2020	Average
Male	0.29%	-0.25%	-0.77%	-1.20%	-1.70%	-2.79%	-1.07%
Female	-3.48%	3.16%	9.74%	14.48%	19.51%	29.63%	12.17%
White	3.66%	1.33%	-0.71%	0.00%	0.41%	-3.23%	0.24%
Black	5.71%	1.40%	-9.19%	-2.15%	-9.37%	-8.56%	-3.69%
Asian	-1.38%	-5.95%	5.20%	-14.65%	15.46%	-21.19%	-3.75%
Hispanic	-77.01%	-76.76%	-73.33%	-74.34%	-77.88%	73.59%	-50.96%
Officer (#)	2015	2016	2017	2018	2019	2020	Average
Male	20	-12	-36	-39	-23	-11	-17
Female	-18	12	37	40	24	11	18
White	208	53	-29	0	5	-11	38
Black	22	4	-26	-4	-8	-2	-2
Asian	-3	-9	9	-18	8	-3	-3
Hispanic	-2,227	-1,510	-1,339	-982	-458	128	-1065

A final analysis evaluated the percentage of awards given to those individuals with five or fewer years of service, controlling the data by E-1 through E-4 for enlisted members and O-1 through O-3 for officer members. For junior enlisted, males received 5.94% fewer awards than expected, while females received 62.21% more awards. In contrast to the previous analyses, Hispanics performed far better than Whites in the lower enlisted ranks, with 24.29% and 0.71%, respectively, above expected baseline rates. For junior officers, Whites, Asians, and Hispanics were above average baseline, with females being 44.69% above the expected baseline. However, males and Blacks were significantly below the baseline at 4.68% and 1.13%, respectively, with fewer awards.

By accounting for the time in service under five years, the sample populations for each demographic are reduced significantly, thereby increasing the margin of error associated with the data outputs. For example, the total junior enlisted population as of September 2020 was 107,104, approximately 67% of the total enlisted population. And the total junior officer population as of September 2020 was 12,573, about 59% of the entire officer population. Due to the smaller sample sizes of each demographic, the percentage from the expected baseline may appear inflated. As an illustration, junior Black officers were 17.96% below the expected baseline for the year 2020. The difference was 2, but only

717 Black junior officers were in the sample. Tables 8 and 9 display the average percentage and total amount above or below the expected number of awards for junior enlisted members and junior officers, respectively.

Junior enlisted females received 62.21% more awards than expected, for an average of 210 more awards over five years. Black junior enlisted members received an average of 12.91% fewer awards than expected because of the tiny population (n) among junior enlisted members and a slightly higher than expected percentage baseline for awards for the total population. For example, in 2016, the population of Black junior enlisted was approximately 12,599. The expected baseline for the entire population was 3.74%, an almost 0.2% positive increase from the total population baseline, which meant Black junior enlisted were expected to receive 460 awards that year. Instead, the actual number of awards was 471, which is still an insufficient number of awards, but it was 2.44% higher than expected. Junior female officers received 41.23% more awards over five years, while male junior offices received 4.11% fewer awards than expected from baseline. Black junior officers received 19.06% fewer awards over five years, while White junior officers received slightly above 2.18% more than expected.

Table 8. Junior Enlisted Percentage Difference from Expected Baseline and Total Difference Over Six Years

Award Baseline	2015	2016	2017	2018	2019	2020	Average
	3.49%	3.65%	8.78%	4.45%	3.30%	1.33%	4.17%
Junior Enlisted (%)	2015	2016	2017	2018	2019	2020	Average
Male	-6.79%	-7.74%	-7.28%	-5.54%	-3.99%	-4.33%	-5.94%
Female	78.57%	82.99%	74.75%	54.77%	39.00%	43.18%	62.21%
White	-1.24%	-1.25%	-1.51%	0.39%	0.88%	6.99%	0.71%
Black	-4.01%	2.44%	-6.00%	-12.68%	-23.53%	-33.70%	-12.91%
Asian	15.53%	25.99%	32.32%	3.86%	20.42%	1.80%	16.65%
Hispanic	23.14%	17.24%	27.79%	20.75%	21.96%	34.84%	24.29%
Junior Enlisted (#)	2015	2016	2017	2018	2019	2020	Average
Male	-239	-283	-308	-246	-131	-56	-211
Female	242	283	308	241	131	56	210
White	-39	-41	-58	16	26	80	-3
Black	-17	11	42	-69	-94	-53	-30
Asian	15	28	42	5	22	1	19
Hispanic	31	22	39	28	21	13	26

Table 9. Junior Officer Percentage Difference from Expected Baseline and Total Difference Over Six Years

Award Baseline	2015	2016	2017	2018	2019	2020	Average
	12.17%	10.54%	11.33%	8.09%	3.98%	1.36%	7.91%
Junior Officer (%)	2015	2016	2017	2018	2019	2020	Average
Male	-2.80%	-4.11%	-3.89%	-4.50%	-4.84%	-7.94%	-4.68%
Female	30.85%	41.23%	39.11%	44.47%	44.32%	68.12%	44.69%
White	0.77%	2.18%	2.35%	0.71%	2.82%	0.04%	1.48%
Black	-23.69%	-19.06%	68.03%	-0.67%	-13.44%	-17.96%	-1.13%
Asian	-1.23%	31.73%	25.82%	20.02%	9.53%	7.67%	15.59%
Hispanic	-20.92%	-8.63%	24.88%	22.07%	19.45%	55.94%	15.47%
Junior Officer (#)	2015	2016	2017	2018	2019	2020	Average
Male	-38	-48	-50	-42	-22	-12	-35
Female	39	47	50	42	22	12	35
White	9	22	27	6	11	0	13
Black	-19	-14	51	0	-4	-2	2
Asian	-1	13	12	7	2	0	6
Hispanic	-25	-9	29	18	7	7	5

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. SUMMARY

The data observations in this study were used to calculate the expected percentage of awards for each demographic over six years. The actual number of awards received in each demographic group was then compared to that baseline to achieve a +/- value from the expected number of awards to show differentiation. These calculations showed that, for the overall population, males received 1.75% fewer awards than expected, while females received 18.81% more than expected. The average value of awards males received below expected was 213, or 1,275 total awards below expected over six years. Conversely, the average value of awards females received above expected was 214, or 1,281 total awards more than expected over six years. Whites received 2.09% fewer awards than expected, while Blacks received 7.90% fewer awards. The average value of awards White individuals received below expected was 394, or 2,430 fewer awards below expected over six years. Black individuals received 89 fewer awards than expected or 564 fewer awards over six years.

Next, the data were split by enlisted and officer, and the calculations were repeated. For enlisted members, males received 2.17% fewer awards than expected, for an average of 217 fewer awards each year and 1,301 fewer awards over six years. Enlisted females received 22.61% more awards than expected, for an average of 213 more awards per year and 1,281 more than expected. White enlisted individuals received 0.04% fewer awards than expected, for an average of 23 fewer awards per year and 1,363 fewer awards over six years; White enlisted received 1,147 more awards above expected in 2015 and an average of 455 fewer awards below expected average in 2016, 2017, and 2018. Blacks enlisted individuals received 1.71% fewer awards than expected, for an average of 32 more awards per year and 236 fewer awards than expected over six years.

Among officers, males received 1.07% fewer awards than expected, an average of 17 fewer awards per year, totaling 101 fewer awards than expected over six years. Meanwhile, female officers received 12.17% more awards than expected. The average



number of awards above expected each year was 18, for 105 more awards than expected over six years for female officers. White officers received 0.24% more awards than expected, 38 more awards each year on average, and 226 more awards over six years. Black and Asian officers received 3.69% and 3.75%, respectively, fewer awards than expected, averaging over 2–3 awards below expected each year and over 31 fewer than expected over six years for both demographics. Meanwhile, Hispanics received 50.96% fewer awards, 1,065 fewer awards each year on average, and 6,388 fewer awards than expected.

Finally, to account for military rank and time in service, an analysis of awards received by individuals with less than five years of service was performed. For junior enlisted, males received 5.94% fewer awards than expected, while females received 62.21% more than expected. Whites received 0.71% more awards than expected, Blacks received 12.91% fewer awards than expected, Asians received 16.65% more awards than expected, and Hispanics received 24.29% more awards than expected. For junior officers, males received 4.68% fewer awards than expected, while females received 44.69% more than expected. Whites received 1.48% more awards than expected, Blacks received 1.13% fewer awards than expected, Asians received 15.59% more awards than expected, and Hispanics received 15.47% more awards than expected.

B. CONCLUSIONS

Based on the observations made in this study, the following conclusions can be made:

The data suggests a significant overrepresentation in the number of awards received by individual female Marines, as depicted in Figure 3. On average, females of any rank received 18.81% more awards than expected for the overall population. On the other hand, males received 1.75% fewer awards than expected for every year observed in the data set. Additionally, junior female enlisted and officers received 62.21% and 44.69%, respectively, more awards than expected, while junior male, enlisted and officers, received 5.94% and 4.68%, respectively, fewer awards than expected. Moreover, it suggests that the awards system is likely functioning correctly, yet the data indicate that female Marines are overrepresented based on the large disparities between expected and observed numbers.



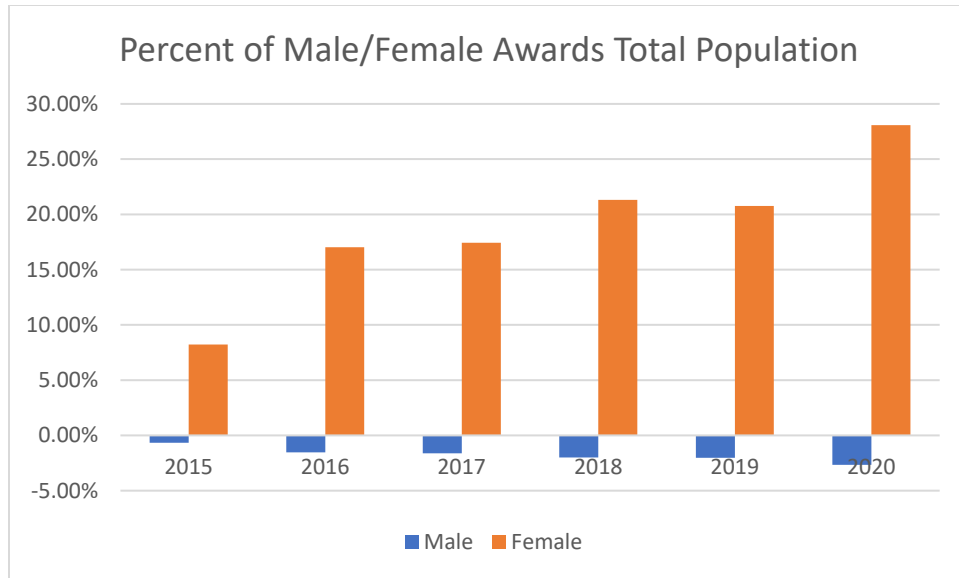


Figure 3. Percent Difference of Male/Female Awards Total Population

The data suggests a noticeable under-representation of awards received by Hispanics, as a total population, through all six years observed in the data, as depicted in Figure 4. Though on average, Whites, Asians, and Blacks received awards at a rate below their respective baseline, they were not below average in every year observed like Hispanics. Whites received 2.09% fewer awards than expected for the overall population, with 2020 being the only year that Whites were 1.48% above average. Blacks, on average, received 7.90% fewer awards than expected, with 2015, the first year of the observed data, being above the expected average with 1.03%. Additionally, Asians received 2.74% fewer awards than expected, with 2017 being the only year they were above average with 4.13%. Hispanics, on average, received 12.93% fewer awards than expected in every single year observed.

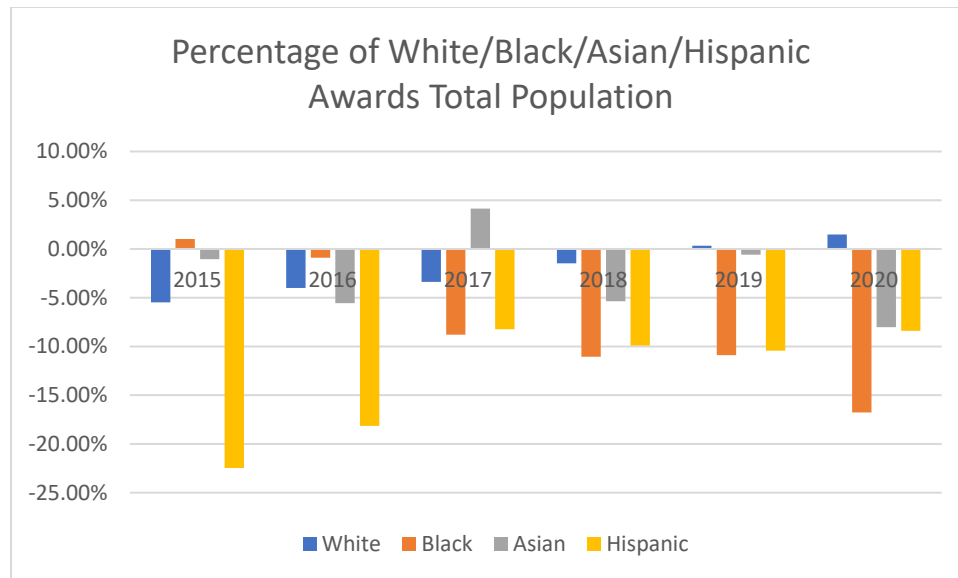


Figure 4. Percent Difference of White/Black/Asian/Hispanic Awards Total Population

When the data were separated by enlisted and officer, as depicted in Figure 5 and Figure 6, respectively, Black and Asian enlisted and officers received fewer awards than expected. Black enlisted received 1.71% fewer awards than expected; Black officers received 3.69% fewer awards than expected; Asian enlisted with 4.67% fewer awards than expected, and Asian officers with 3.75% fewer awards than expected. On the other hand, while Hispanics, as a total population, received on average fewer awards, the rates for either enlisted or officers differed dramatically. Hispanic enlisted received 9.90% more awards than expected, while Hispanic officers received 50.96% fewer awards in all, but in the last year observed, Hispanic officers received 73.59% more awards than expected.

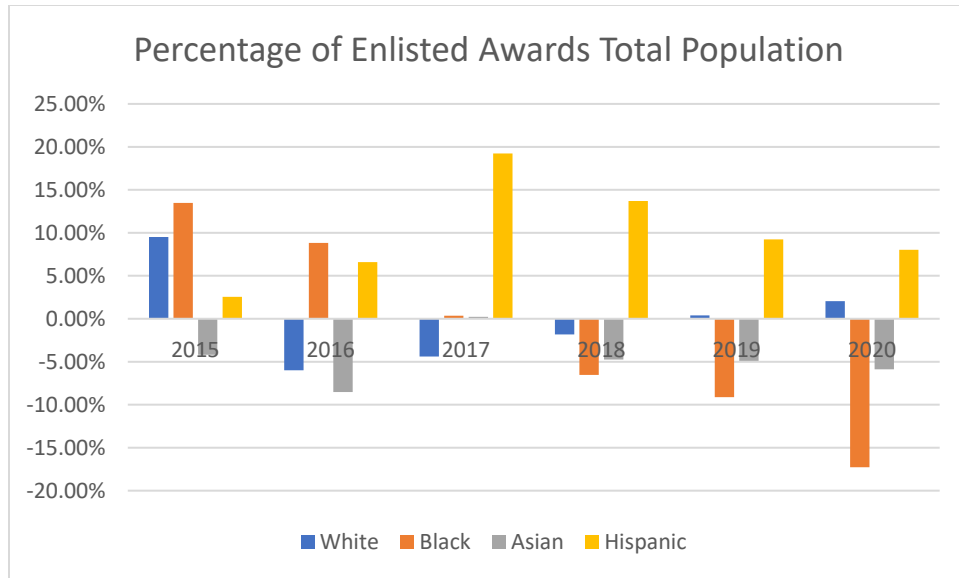


Figure 5. Percent Difference of Enlisted Awards Total Population

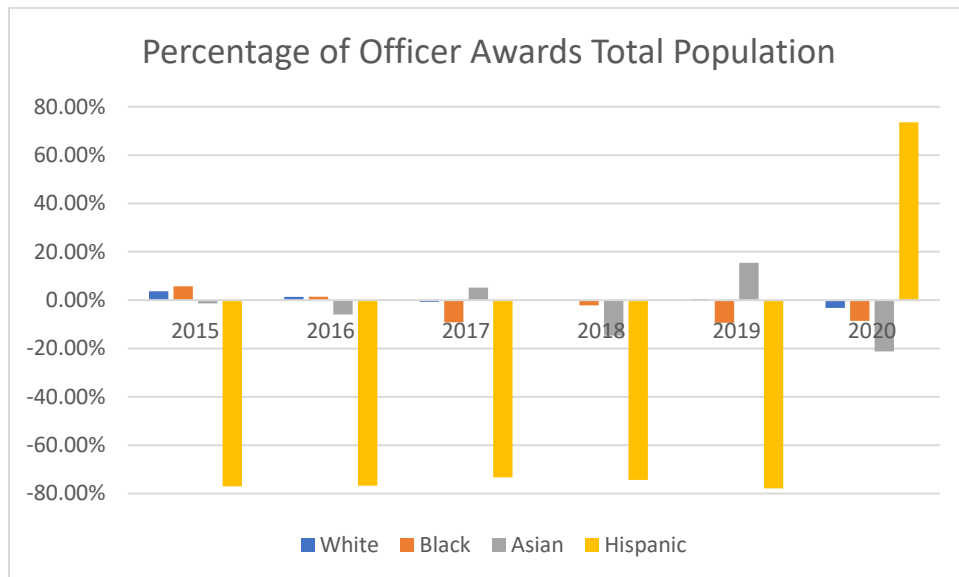


Figure 6. Percent Difference of Officer Awards Total Population

Overall, for every year observed within the data set, male officers received fewer than the expected number of awards in all but one year. In contrast, female officers received more than the expected percentage of awards in every year of observation by an average of 12.17%. Even though only 1.02% of all women are officers, they received significantly

more awards than any other demographic within the Marine officer population. White officers also received more than the expected number of awards, while Black, Asian, and Hispanic officers always received fewer than the expected percentage of awards.

C. RECOMMENDATIONS

While the demographic analyses provided in the current thesis are thorough and suggest that implicit bias may be a plausible factor in the under/overrepresentation of certain demographics in the Marine Corps awards system, the present analysis falls well short of establishing a causal linkage. Indeed, more rigorous statistical modeling could establish the predictive properties of demographics in the awards system. Thus, the Marine Corps senior leadership should first allocate resources toward rigorous statistical research to determine if demographic category membership alone (rather than other variables that may correlate with category membership) explain observed disparities. Although these data observations highlight significant disparities in awards received by minority members of the Marine Corps, they do not firmly establish implicit or systemic bias as a root cause for the observed disparities.

These caveats aside, the data indicate that female Marines are more likely to receive performance awards than male Marines, as a proportion. However, further research is needed to determine if this outcome is due to implicit bias or if female Marines, owing to their small numbers in a male dominant organization, end up, on average, pushing themselves to do go above the expected responsibilities resulting in above expected baseline of awards for their demographic. For example, because women, in general, are so underrepresented in the Marine Corps, the findings presented here may be an artifact of the small numbers (e.g., while the raw counts are indisputable, the percentage above is expected to appear inflated because of the small denominators). Yet, an equally plausible explanation is that because women are so underrepresented in the Marine Corps, those who nominate and approve the awards may be overcorrecting out of concern of being perceived biased. Additionally, it is recommended that these data observations be compared by career field (Military Occupational Specialty) to determine if specific demographics are over- or underrepresented in certain career fields and if that has a significant impact on awards.



Implementing diversity and inclusion representatives in the command awards board is also recommended. While the USMC Awards Manual guides every command in the Marine Corps, there are no current guidelines to ensure equal opportunity representation in the awarding of personal and heroic recognitions. A diversity and inclusion (D&I) representative would ensure diversity among award recipients and promotions within the command and monitor results to measure progress and suggest improvements. This role aims to ensure an equitable command environment for all service members regardless of gender or race.

Retention levels should be compared between those groups displaying higher or lower percentages of expected awards to determine if a causal relationship exists; it is possible that individuals who are less likely to reenlist could be impacted by bias in the awards process or that pre-existing bias is affecting levels of retention. Finally, recruitment levels should also be compared to the results for awards among minorities to analyze any causal link between where individuals are recruited from, what career fields they are most likely to be placed in, and what their education level is in tandem with the results of this study.



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