NPS-HR-24-201

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Program Evaluation for Graduate Education Utilization across Navy Communities

March 2024

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Department of Defense Management

Naval Postgraduate School

Prepared for the Naval Postgraduate School, Monterey, CA 93943.

ACQUISITION RESEARCH PROGRAM
DEPARTMENT OF DEFENSE MANAGEMENT
NAVAL POSTGRADUATE SCHOOL

The research presented in this report was supported by the Acquisition Research Program of the Department of Defense Management at the Naval Postgraduate School.

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ABSTRACT

This study analyzes the graduate education utilization process, specifically regarding Human Resource Officers (HROs) within the context of the United States Navy. By comparing analogous practices within other Restricted Line (RL) communities, my research provides valuable insights for Navy Human Resources (HR) community leadership. The ultimate objective is to offer actionable recommendations for enhancing the utilization of graduate education opportunities among HROs.

To attain this objective, I conducted semi-structured interviews with key stakeholders, including officer community managers, detailers, restricted line community managers, and department leads. These interviews extracted Navy-specific insights and perspectives. Notably, the selected interviewees hold vital roles and possess a professional vested interest in the current framework, initiatives, processes, and instructions governing graduate education utilization within the Navy communities.

Based on data from the Naval Postgraduate School Research Institute, I annotated an average utilization rate of 51 percent for the Human Resources community, 91 percent for the Oceanography community and 53 percent for the Public Affairs community.

Based on interview feedback, community leaders unanimously agreed that the Navy can only address graduate education utilization rates once it addresses the inaccuracy of subspecialty-coded billets throughout the fleet.

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ACKNOWLEDGMENTS

I would like to extend my deepest appreciation to Dr. Latika Hartmann and Dr. Simona Tick for their steadfast mentorship and insightful guidance, which have formed the cornerstone of my educational journey. I owe special thanks to Dr. Jenni Heissel, whose exceptional role modeling has been inspirational. Her influence reached beyond the classroom, encouraging us to strive for excellence in both our academic and professional pursuits.

To my wonderful children, Riley and Jackson, thank you for teaching me the profound lesson of appreciating life's simple joys- such as taking the time to literally smell the flowers- and for filling my days with laughter and wonder. I love you both dearly.

Lastly, I would like to express my gratitude to my spouse, J.T., for his support and encouragement. The kids and I are incredibly grateful for the multiple ways you have supported us on this journey.

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LIST OF ACRONYMS AND ABBREVIATIONS

CAPT	Captain
CDR	Commander
DOD	Department of Defense
DODI	Department of Defense Instruction
DON	Department of the Navy
ENS	Ensign
LCDR	Lieutenant Commander
LT	Lieutenant
LTJG	Lieutenant Junior Grade
METOC	Meteorology/Oceanography Officer
OPNAV	Office of Chief of Naval Operations
NAVPERS	Navy Personnel Command
NPS	Naval Postgraduate School
PAO	Public Affairs Officer
PERS	Bureau of Naval Personnel
SECNAV	Secretary of the Navy

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I. INTRODUCTION

In 2023, the Honorable Carlos Del Toro, the 78th Secretary of the Navy, unveiled 2023 Naval Education Strategy a comprehensive document delineating three principal lines of effort. The Naval Education Strategy addresses the pivotal role of Naval education in providing foundational knowledge requisite for conflict deterrence and wartime success. Specifically, the Naval Education Strategy outlines the necessity to cultivate "leaders who possess the highest intellectual and warfighting capabilities in order to confront the many dangers of a complex world" (Secretary of the Navy, 2023, p. 3). Furthermore, the strategy highlights that graduate education "enables better problem-solving at all levels" (Secretary of the Navy, 2023, p. 7).

Navy-funded graduate education serves as a "strategic investment in human capital" to meet the growing demands of a dynamic national security environment (Pitzel, 2018, p. 1). A fundamental question emerges from this investment: To what extent do officers capitalize on their graduate education post-graduation, under the premise that advanced degrees are indispensable within the Department of Defense? Mandated by the Office of the Chief of Naval Operations (OPNAV) Instruction 1520.23C, *Graduate Education*, officers must serve a three-year service commitment, colloquially termed as a "pay-back" or "utilization" tour. This obligation mandates officers to apply the proficiencies awarded during their graduate studies to subsequent assignments (Office of the Chief of Naval Operations, 2015, 2020).

Through the graduate education programs at the Naval Postgraduate School and select civilian institutions, officers obtain community-specific subspecialty codes (P-codes). These codes codify the array of skills, knowledge, and abilities accrued through formal education. Officers awarded a graduate education subspecialty code are then directed to occupy designated positions, known as billets, wherein they can deploy their freshly acquired proficiencies. Termed subspecialty-coded billets, these assignments directly align with the officer's awarded subspecialty and are pivotal in maximizing the integration of skills and knowledge. The Navy Personnel Command tracks both the

number of graduate education subspecialty coded officers and the number of subspecialty coded billets to ascertain a "utilization" rate in each community.

Historically, the Restricted Line communities, communities with line officers that do not have command at sea opportunities, collectively had a utilization rate of around 80 percent (Brutzman, 1994, p. 43). With lower than ideal utilization rates and growing officer inventory constraints, this study endeavors to undertake a holistic examination of graduate education utilization within the Human Resources community in relation to other Restricted Line communities and the Supply Corps. Its objectives are to furnish insights to Navy Human Resources community leadership, thereby arriving at actionable recommendations designed to optimize the utilization of graduate education opportunities among Human Resources Officers.

To fully leverage the opportunities, knowledge, and skillsets acquired through graduate education, the Navy must conduct a rigorous assessment of its current standing in graduate education utilization, thereby paving the way for worthy organizational improvements. In 2002, the call to action dubbed "Get Real, Get Better," instructed every "Navy leader to apply a set of Navy-proven leadership and problem-solving best practices that empower our [Navy] people to achieve exceptional performance" (Department of Defense, 2023, para. 2). The "Get Real" component advocates for leaders to "self-assess, to build teams that embrace honest, hard, transparent looks at performance and to understand strengths and shortcomings" (Department of Defense, 2023, para. 3). Conversely, the "Get Better" component focuses on the "unwavering commitment to continuously improve, to be self-correcting and to apply proven methods to improve issues that matter most, in a focused and disciplined way" (Department of Defense, 2023, para. 4). As shown in Figure 1, "Get Real, Get Better" begins with determining the current state of problems and then establishing standards.

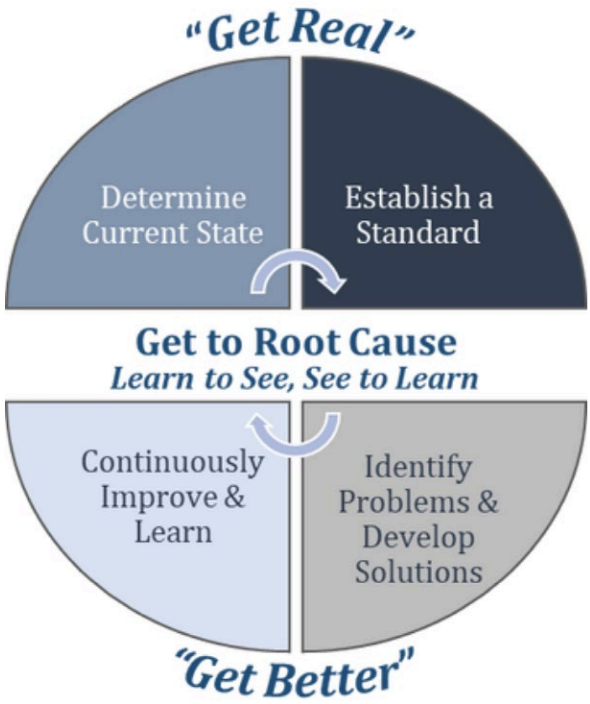

Figure 1. "Get Real, Get Better" Training Packet. Source: Department of Defense (2023)

Anchored in the tenets of "Get Real, Get Better," this research endeavors to understand the differences in utilization rates across various communities, including Human Resources, Public Affairs, Oceanography, Foreign Area, and Supply Corps communities. By leveraging findings on utilization rates and community best practices, the research aims to furnish the Human Resources community with actionable recommendations to optimize the utilization of its graduate educated officers.

A. RESEARCH QUESTIONS

In this thesis I answer the following research questions:

1. What are the current opportunities, processes, and challenges for improving graduate education utilization in the Restricted Line communities?

2. What processes can the Human Resources community use to enhance graduate education utilization?

By answering the above questions, the aim is to identify feasible courses of action for the Restricted Line communities to better utilize postgraduate education degrees.

B. FINDINGS

To answer these questions, I used mixed-methods approach incorporating both qualitative inquiry through personal interviews with Navy stakeholders who have firsthand knowledge of the graduate education utilization process and quantitative data to document current and historical utilization rates. This study employs a dataset obtained from the Naval Postgraduate School's Institutional Research Database, comprising records of graduate-educated officers spanning the period from 2000 to 2023. Using data on 4,681 observations of officers who graduated between 1987 and 2023, I found utilization rates range from a high of 91 percent in the Oceanography community to as low as 23 percent in the Human Resources Community. The Human Resources community had an overall average utilization of 51 percent, with a strong likelihood of increasing due to a new initiative in which officers receive order to Naval Postgraduate school and orders to the follow-on utilization tour at the same time.

These patterns that I document correspond with past studies, albeit the exact utilization numbers differ due to differences in time period of study and study population. For example, past studies on graduate education utilization revealed that the Unrestricted Line utilization rates scarcely exceed 50 percent, indicating a substantial gap between investment and return and necessitating "multiple career-spanning tours for adequate utilization" (Kamarck et al., 2010, p. 18). In comparison, the Restricted Line and Staff Corps communities exhibit higher utilization rates, though there is a lack of consensus on specific rates among various studies. The Staff Corps, notably within the medical and legal fields, achieves the highest rates of utilization, presumably attributed to the precise tracking necessitated by their fields of expertise.

Augmenting the quantitative findings, I conducted semi-structured interviews with 14 officers spanning the Human Resources, Foreign Area, Oceanography, Public

Affairs, and Supply Corps communities, supplemented by insights from personnel at OPNAV.

The key findings, derived from interviews and analyses of both contemporary and historical graduate education utilization rates, indicate that enhancing graduate education utilization within the Navy necessitates a precise alignment of billets with their corresponding subspecialty codes. Only when billets accurately denote the requisite subspecialty codes, thereby delineating the specific "knowledge, skills, and abilities" essential for proficient job execution, can the Restricted Line communities effectively align the current pool of graduate-educated officers and forthcoming graduates with critical roles needed with the inventory of individual community needs (Office of the Chief of Naval Operations, 2015, p. 3).

Interviewee responses and study findings are harmonious in recommending annual subspecialty utilization reviews for billets to enhance utilization. Such reviews foster a unified management strategy among stakeholders. Officer Community Managers, and community Detailers, thereby improving utilization and prompting the revision of current Department of Defense (DOD) policies. Interviewee response unanimously agreed that the Navy's graduate education utilization rates cannot be accurately addressed without first resolving the widespread miscoding of subspecialty billets across the fleet.

Additionally, the feedback highlights the negative impact of insufficient officer inventory on utilization rates, which forces the allocation of personnel to roles in operational and afloat billets, positions often not designated as subspecialty-coded billets.

C. LIMITATION

This thesis confides its scope primarily to the subset of Naval Postgraduate Education graduates, excluding the Public Affairs community which predominantly relies on institutions such as San Diego State University, Syracuse University, and Georgetown University for its graduate education. Consequently, this analysis encompasses only a fraction of the officers who have benefited from fully funded graduate education programs, which may constrain the generalizability of the findings. Moreover, the perspectives offered by the interviewees, while not reflective of the Navy as a whole,

provide valuable insights into the complexities of optimizing graduate education utilization.

The thesis consists of seven chapters. Chapter II discusses the foundational knowledge of graduate education and naval officer career paths in select Restricted Line communities, community values, and subspecialty codes. Chapter III reviews previous literature on Restricted Line communities' and Supply Corps community utilization rates and trends. Chapter IV describes historical utilization trends based on data provided by the Naval Postgraduate School Research Institute. Chapter V describes the data and methodology of this thesis. Chapter VI presents the findings based on interviews. And finally, Chapter VII presents the conclusions and recommendations.

II. BACKGROUND

This chapter commences with an in-depth examination of the Department of Defense's approach to graduate education, delving into the nuances of subspecialty codes, and the methodologies the Navy employs to calculate and determine utilization rates. Furthermore, it contrasts the various mechanisms for tracking, managing, and policy formation pertaining to utilization rates across communities. The chapter proceeds with a thorough exploration of subspecialty-coded billets and culminates with an assessment of how selected communities within the Restricted Line- mainly Public Affairs, Human Resources, Foreign Area- as well as one Staff Corps community: the Supply Corps, formulates officer management and prioritizes values for promotion. Finally, this chapter briefly summarizes the utilization rates within each community, highlighting the disparities in tracking, management, and policy-making related to utilization among the communities.

Under the Naval Education Strategy 2023, the Secretary of the Navy (SECNAV) outlined his directives and strategic initiatives aimed at enhancing force readiness and competitive advantage through education. The strategy delineates three Line of Effort (LOE): LOE 1 "underscores the continuum of learning, emphasizing learning as a professional expectation" to augment "force effectiveness," with education serving as a "pivotal aspect of warfighting" (Secretary of the Navy, 2023, p. 9). LOE 2 integrates "education into talent management frameworks to" better synchronize personnel with needs of the Navy, advocating for active pursuit of learning opportunities by all personnel (Secretary of the Navy, 2023, p. 9). Objective 2.3 of LOE 2 emphasizes the imperative for personnel to "leverage their education," as failure to "apply newly acquired knowledge, skills, and competencies risks rapid degradation through disuse" (Secretary of the Navy, 2023, p. 9). Both the Navy and Marine Corps details officers to billets requiring direct application of their procured education (Secretary of the Navy, 2023).

In accordance with the Naval Education Strategy 2023, there is a commitment to "review its subspecialty system and additional qualification designators to ensure that graduate degree-coded billets requiring specific education are matched to the Navy's

critical skills and competencies" (Secretary of the Navy, 2023, p. 12). Moreover, the strategy emphasizes maximizing the assignment of credentialed officers to coded billets "within end-strength constraints and operational requirements" (Secretary of the Navy, 2023, p. 12). SECNAV further emphasizes the utilization of follow-on utilization tours post-education, aiming to optimize return on investment by reinforcing officers' "acquired knowledge, skills, and abilities" in support of the Navy's mission (Secretary of the Navy, 2023, p. 12). The Navy continues to see graduate education as a "strategic human capital investment to develop the world's most capable, adaptive, and innovate naval force in support of the President's national security priorities and the National Defense Strategy (NDS)" (Secretary of the Navy, 2023, p. 1).

Given the prioritization of education, each branch of the service awards fully-funded graduate education opportunities to a number of officers each year based on the Graduate Education Quota Plan. The model provided in the Graduate Education Quota Plan, "runs annually for all Navy funded graduate education based on validated billets requiring a subspecialty with graduate level skills (e.g., suffices C, D, M, N P, and Q) and also derives graduate education quotas by officer grade, community (unrestricted line, restricted line and staff corps) and subspecialty for each graduate education curriculum" (Office of the Chief of Naval Operations, 2007, p. 101). The model uses extracted data from the Total Force Manpower Management System and the Officer Master File, and assists decision-makers in achieving a stable equilibrium across all curricula, thereby reducing significant fluctuations in student enrollment and guaranteeing optimal utilization of coded officers (Office of the Chief of Naval Operations, 2007).

In exchange for graduate education funded by the Navy, officers incur additional service time and a "pay back" tour referred to as a "utilization tour" (Office of the Chief of Naval Operations, 2020). In a fully-funded graduate program, an officer receives "full pay and allowances" according to their rank, in addition, the "majority if not all of the schooling expenses are covered by the U.S. government" (Office of the Chief of Naval Operations, 2020, p. 2). Fully-funded graduate education opportunities exist at the Naval Postgraduate School, other Department of Defense universities, and select civilian institutions (Office of the Chief of Naval Operations, 2020). The Naval Postgraduate

School is “the Navy’s primary source of graduate education,” and it offers “Navy-centric curriculums tailored to meet the needs of major area sponsors” (Office of the Chief of Naval Operations, 2020, p. 3). Regardless of the community, the Department of Defense policy mandates that officers in receipt of fully or partially funded graduate education complete one utilization tour.

Subspecialty utilization is the process by which officers are assigned to billets that require the specialized knowledge and skills obtained through their graduate education. DOD policy advocates for officers to engage in multiple utilization tours throughout their careers to maximize the application of their acquired skillsets. Specifically, a validated billet mandates the unique competencies that only graduate-level education can impart, ensuring that officers are well-equipped to fulfill their roles effectively. In 2020, the Department of the Navy mirrored the policies outlined in the DOD and stated that “upon graduation from a graduate program an officer should use their degree immediately but may defer for career milestone requirements” (Office of the Chief of Naval Operations, 2020, p. 8). Additionally, the Navy Personnel Command Military Personnel Manual 1301–900 (MILPERSMAN 1301–900) provides further clarification, insisting on the primacy of utilization tours, which should typically occur directly after graduation, “utilization tours should occur at first opportunity, normally immediately following graduation but utilization should not interfere with specific operational tours essential to warfare qualifications” (Navy Personnel Command, 2005, p. 3). In synthesizing these policies, it is clear that the intention behind the Department of the Navy’s guidelines is to create a framework where the advanced education of officers is not merely an academic credential but a strategic asset best utilized immediately, in service of the nation’s naval operations.

The use of subspecialty codes in tracking acquired education, skills, and abilities is pivotal to ensuring a return on investment. Subspecialty codes consist of four numerals and an alphabetic suffix to document known billet requirements and officers with a specific set of skills and knowledge. An officer is awarded a subspecialty-code based on “the advanced education appropriate to a specific subspecialty and/or significant experience gained by having served in billets designated within that subspecialty” (Office

of the Chief of Naval Operations, 2015, p. 23). Upon graduation, the subspecialty code is entered into the transcript and entered into the officer's official record (Office of the Chief of Naval Operations, 2015). Each subspecialty captures the "Educational Skill Requirements- degree program features that are required to meet a specific subspecialty," and the "Core Skill Requirements- the list of quantifiable skills, traits, and experiences that a subspecialty must have to perform a coded billet" (Office of the Chief of Naval Operations, 2007, p. 22). Each code is then captured and tracked within the Navy Subspecialty System (Office of the Chief of Naval Operations, 2007).

A. NAVY SUBSPECIALTY SYSTEM

The Navy Subspecialty System uses subspecialty codes to "facilitate the assignment of subspecialties to subspecialty-coded billets and generate the Navy's advanced education requirements" (Office of the Chief of Naval Operations, 2015, p. 33). Officers can fill coded billets matching their subspecialty codes, "enabling them to utilize the skills acquired through education and/or experience" while also providing commands with "a pathway to identify officers possessing the desired skills" (Bureau of Personnel, 2024, p. 34).

B. BILLETS AND SUBSPECIALTY CODES

To authorize a subspecialty code assignment to a billet, all requests undergo the billet change request process. Oversight of all subspecialty billet authorizations falls under the purview of the Chief of Naval Operations (N127). The Biennial Subspecialty Validations Zero Based Review entails a "biennial validation of subspecialty requirements carried out in the Zero-Based Review process" (Office of the Chief of Naval Operations, 2007, p. 100). To initiate modifications of subspecialty codes for a billet outside a "Biennial Subspecialty Validation Zero based Review" window, "the request can be processed through the Total Force Manpower Management System" (Office of the Chief of Naval Operations, 2007, p. 100). Verification of current subspecialty codes within billets necessitates user to consult the "Activity Manning Documents/ Activity Workforce Documents to determine primary and secondary subspecialty codes" (Office of the Chief of Naval Operations, 2007, p. 100). Community

managers, senior leadership, and OPNAV personnel use a combination of the Total Force Management System, Activity Manning Documents/Activity Workforce Documents, and Officer Personnel Information System- a repository providing individual officer data and subspecialty codes- to calculate utilization rates.

C. SUBSPECIALTY UTILIZATION RATES

Utilization rates vary drastically across the Armed Services and within Navy communities. In contrast to its sister services, the United States Navy exhibits the lowest graduate education utilization rate. The Marine Corps demonstrates exceptional effectiveness in utilizing its fully funded graduate educated officers, "boasting a utilization rate of 96 percent" (Kamarck et al., 2010, p. xv). Similarly, the Air Force "promptly assigns 60 percent of its officers to a utilization tour upon graduation" (Kamarck et al., 2010, p. xv). Kamarck et al. conducted studies in 2010 on graduate education within the Navy, revealing that approximately half of Unrestricted Line and Restricted Line officers complete utilization tours within one tour of graduation (Kamarck et al., 2010). The significant variation in utilization rates is primarily attributed to differences in operational demands, billet requirements, and the total number of graduate education quotas allocated across services. In 2010, the Navy had 550 graduate education quotas, the Air Force had 460, and the Marine Corps possessed 180 quotas (Kamarck et al., 2010, p. 49). Naval Personnel Command documents utilization rates by community and monitors compliance with the Department of Defense and Department of the Navy policies. Blankenship (2015) analyzed utilization rates in 2015, revealing rates of 52 percent for the Intelligence community, 98 percent for the Oceanography community, and 75 percent for the Restricted Line community as a whole, with an overall Navy utilization rate of 65 percent across 3,577 officers (Blankenship, 2015, p. 34). Each of the utilization rates derived in the study conducted by Blankenship (2015) adheres to the guidelines outlined in the Military Personnel Manual 1301–900, which defines utilization as officers "assigned to a series of subspecialty billets throughout their careers" (Navy Personnel Command, 2020, p. 2).

Subsequent studies referenced within this thesis further point to disparities in utilization rates among distinct Navy communities. Certain analyses suggest that subspecialty utilization within the Navy might exhibit lower figures compared to those observed in sister services, yet this metric may not entirely reflect the comprehensive utilization of graduate education. These studies suggest that the utilization of the Additional Qualification Designator holds varying degrees of significance contingent upon the particular community under examination.

D. ADDITIONAL QUALIFICATION DESIGNATOR (AQD) CODES

Similar to subspecialty codes, Additional Qualification Designator (AQD) Codes serve to "enhance billet and officer designator codes by specifying the qualifications necessary" for a "billet or the specific qualifications attained by an officer through service in the designated billet" (Bureau of Personnel, 2024, p. D-2). The Additional Qualification Designator comprises three characters, either alphanumeric or numeric, with the first character denoting the broad occupational area, while the third character precisely defines the qualification itself. Additional Qualification Designator may be annotated on additional manpower authorization documents and signals "additional qualifications, skills, and knowledge required to perform the duties and/or functions of a billet beyond the grade, subspecialty, or designator" (Bureau of Personnel, 2024, p. 218).

The utilization of subspecialty codes compared to Additional Qualification Designator Codes within the Navy communities exhibits notable distinctions. Each community manifests distinct requirements and skill sets essential for its officers, thereby rending the prioritization of subspecialty codes over Additional Qualification Designator Codes dependent upon community values, operational requirements, and career progression trajectories.

E. NAVY COMMUNITIES AND CAREER TRAJECTORY

The sub-section provides details on the Restricted Line component, a brief description of the individual communities studied throughout this thesis, and finally a comparison of each community and their community values for promotion to Lieutenant Commander and Commander.

There are six total communities within the United States Navy: Unrestricted Line, Restricted Line, Staff Corps, Reserve, Limited Duty Officer, and Chief Warrant Officer- per the Manual of Navy Officer Manpower and Personnel Classification (Bureau of Personnel, 2024, sect. 1-A). Each community has a unique set of skillsets and tasking to support the United States Navy mission- "defend freedom, preserve economic prosperity, and keep the seas open and free" (United States Navy, 2024, para. 1). Upon commissioning from one of the five Navy commissioning sources: Officer Candidate School, Officer Development School, Direct Commission Officer School, Naval Reserve Officers Training Corps, Officers, and the United States Naval Academy embark their career in one of the six communities.

1. Restricted Line

The Navy Restricted Line Communities are comprised of traditional line officers- who do not attain command at sea- but have opportunities for command at shore billets. Some of the communities that make up the Restricted Line community are Permanent Military Professor, Engineering Duty, Aviation Engineering Duty, Aviation Maintenance, Oceanography, Public Affairs, and Foreign Area (Bureau of Personnel, 2024). The Restricted Line Community "makes up twelve percent of the Naval Officer corps, being the third largest community behind Unrestricted Line and Staff Corps" (Pitzel, 2018, p. 11). Although all of great importance, this thesis focuses on the Human Resources, Foreign Area, Oceanography, and Public Affairs communities within the Restricted Line element. Using data compiled by the Officer Personnel Information System- a system that "generates and maintains the official automated personnel records of all the United States Navy/ United States Naval Reserve active-duty officers and officer candidates for both current and historical purposes," Figure 2 shows the overall inventory of officers as of September 2023 within each of the studied communities (Navy Personnel Command, 2024, para. 1).

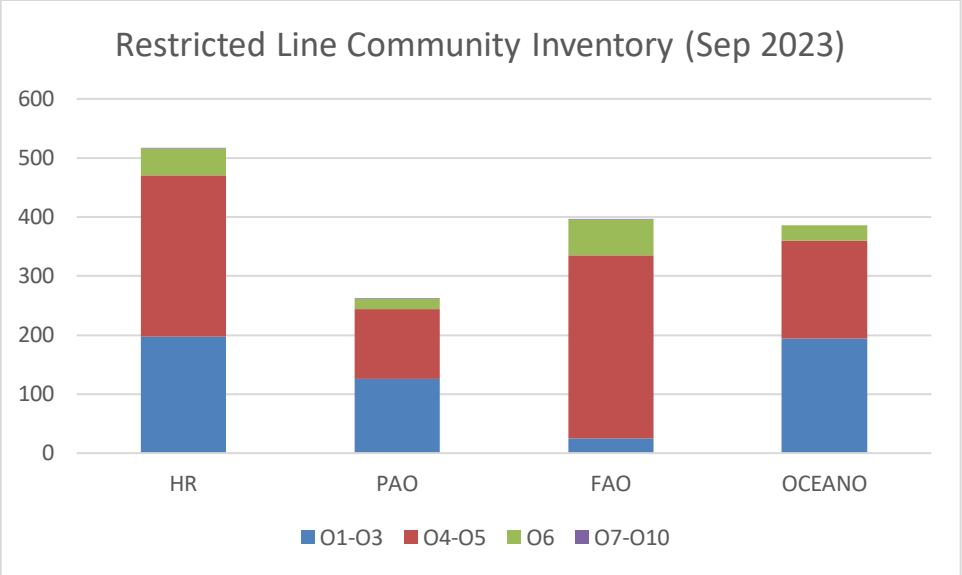

Figure 2. Restricted Line Communities Officer Inventory/Authorization. Adapted from Navy Personnel Command Officer Personnel Information System (2024).

The smallest community in this study is the Public Affairs community, which comprises approximately 250 officers ranging in rank from Ensign (O1) to Admiral (O10). The Oceanography community, also known as the Oceano or METOC community, is the second smallest with just under 400 officers. The Foreign Area Officer community, referred to as FAO, is the third in size with slightly more than 400 officers. The largest of the four is the Human Resources community, known as HR, which has around 520 officers, with ranks extending from Ensign (O1) to Rear Admiral (O7).

a. Public Affairs

The Public Affairs community consists of approximately 250 officers who specialize in communication strategies, media engagement, public storytelling, and the defense against misinformation and adverse publicity (Navy Personnel Command, 2024). There are three ways to assess into the Public Affairs Community: lateral transfer from another community, direct accession from Officer Candidate School, or selection through the Probationary Officer Continuation and Redesignation (POCR) board.

The initial three years for Public Affairs Officers typically involve roles serving as an Aircraft Carrier Assistant Public Affairs Officer- responsible for a media department or a Navy Public Affairs Support Element Action Officer- a deployable Public Affairs role in support of various missions around the world (MyNavyHR Public Affairs, 2021). From years three to eight, officers serve in Independent Duty Public Affair assignments as director of communication at overseas or deployable commands (Navy Public Affairs, 2021). In addition, officers may serve in staff public affairs roles or support the key leadership within the Pentagon. Between the eighth and eleventh years, officers are expected to fulfill milestone tours in significant positions such as Director of Communication or Department Head for an Aircraft Carrier or Strike Group (Navy Public Affairs, 2021). The community places a high value on advanced education from selected Navy-approved civilian institutions, including universities like Georgetown University, San Diego State University, and Syracuse University. Acquiring a master's degree is highly valued for career progression, particularly before promotion to Lieutenant Commander or by the seven-year service mark (MyNavyHR Public Affairs, 2021).

b. Oceanography

Oceanography Officers, a subset of the Information Warfare Community (IWC) and also referred to as Meteorology and Oceanography (METOC), are integral as geophysical specialists with comprehensive knowledge in "meteorology, oceanography, hydrography, as well as precise timekeeping and astrometry" (MyNavyHR Oceanography, 2019, para. 4). These officers enhance the operational capabilities of commanders in warfare by providing forecasts of environmental conditions that could affect military operations, thereby ensuring a robust understanding of the battlespace that spans from ocean depths to the expanses of outer space (MyNavyHR Oceanography, 2019).

Officers typically join the Oceanography community from other communities after obtaining their warfare qualifications, with most accessions occurring at the Lieutenant (O3) level. Advanced education is mandated for all Oceanography Officers between the senior Lieutenant and junior Lieutenant Commander paygrades. For

advancement beyond Lieutenant Commander, officers are required to obtain accredited degrees from institutions such as the Naval Postgraduate School or the Massachusetts Institute of Technology.

In terms of career development, Oceanography Officers, paralleling their counterparts in Public Affairs and Human Resources, pursue competitive milestone positions. These crucial roles are frequently located on aircraft carriers, large amphibious ships, within Strike Group staff, or deployable Joint Task Force staff. On shore, Oceanography Officers are often assigned to major headquarters or joint command billets, reflecting the strategic significance of their expertise within the naval hierarchy (MyNavyHR Oceanography, 2019).

c. Foreign Area Officer

Foreign Area Officers pursue "global geo-strategic advantage by delivering information advantage, influence advantage, access advantage and building capable and willing global naval lethality" (MyNavyHR Foreign Area Officer, 2023, slide 4). These officers operate across three main lines of effort: security cooperation, defense attaché services, and strategic planning (MyNavyHR Foreign Area Officer, 2023). Though eligible candidates may come from all communities, the Foreign Area community predominantly consists of qualified Surface Warfare, Submarine Warfare, or Aviation warfare officers who chose to redesignate. All candidates must obtain a warfare device from their original community prior to applying. The Foreign Area, consisting of 400 officers, assigns personnel to various regions around the world (MyNavyHR Foreign Area Officer, 2023, slide 3). Entry into the Foreign Area community is highly selective, requiring candidates to meet stringent standards: a minimum of four years of service, warfare qualification, a minimum score of 110 on the Defense Language Aptitude Batter, a 2.6 grade point average, eligibility for a top-secret clearance ,and successful completion of an overseas screening to Bahrain standards (MyNavyHR Foreign Area Officer, 2023, slide 13). Post-selection, officers embark on a rigorous training regimen, reporting to the Naval Postgraduate School, Naval War College or Foreign War College for a master's degree focused on regional political and military issues. Subsequently, officers attend the Defense Language Institute

for a language training pertinent to their assigned region (MyNavyHR Foreign Area Officer, 2023, slide 10). Following language instruction, officers are dispatched for one year of in-theatre duty in their area of specialty. Approximately "two-thirds of billets are located overseas" in capacities such as "Security Cooperation Offices, Defense Attaché Offices, and Joint and Navy Staffs located outside of the continental United States" (MyNavyHR Foreign Area Officer, 2023, slide 10). When not stationed in their respective regions, officers serve on staff assignments at U.S.-headquartered Geographic Combatant Commands, Navy Component Commands, the office of the Chief of Naval Operations, the Office of the Secretary of Defense, the Joint Staff, and the Department of State (MyNavyHR Foreign Area Officer, 2023, slide 9).

d. Human Resources

The Human Resources community stands as a pivotal strategic asset within the Department of the Navy, offering "essential expertise in manpower, personnel, training, and education" to support mission fulfillment (MyNavyHR Human Resources, 2023, para. 2). As of Fiscal Year 2023, there were a total of 520 officers in the Human Resources community (Department of the Navy, 2021). Similar to the Oceanography, Public Affairs, and Foreign Area communities, the Human Resources community heavily relies upon accessions from other communities to supplement its inventory. The Human Resources Community assess non-warfare qualified and warfare qualified officers primarily in the ranks of Lieutenant Junior Grade (O2) through Lieutenant (O3) through Lieutenant Commander (O4).

Progression towards a master's degree focused on Human Resources or Operational Analysis is considered valuable at the Lieutenant Commander (O4) rank and is essential for consideration for promotion to Commander (O5). Human Resources Officers are stationed globally, and their career trajectory mirrors that of the Public Affairs community, where Lieutenant Commanders occupy sought-after positions at various establishments including Recruit Training Command, Navy Recruiting Command, Naval Education and Training Command, the Office of the Chief of Naval Operations, and as Training Officers on Aircraft Carriers.

Unique within the Human Resources community is the opportunity for officers to assume command at the rank of Lieutenant Commander. There are fourteen such command billets available, which includes positions as Commanding officers at one of the twelve Military Entrance Processing Stations, the Transient Personnel Unit in Puget Sound, or as the enlisted staff Commanding Officer for U.S. Southern Command (MyNavyHR, 2024). These roles are indicative of the substantial leadership responsibility entrusted to Human Resources officers in the Navy.

2. Staff Corps

a. Supply Corps

The Supply Corps is primarily responsible for "supplying and servicing," contracting, fiscal management, and operational planning to support fleet readiness and sustainment (MyNavyHR, 2024, para. 3). There are three principal career stages in the Supply Corps. The first consists of officers ranging from Ensign to Lieutenant, who assume roles as frontline leaders, where they begin to develop their "leadership skills through interactions with military, civilians, and contractors" (MyNavyHR, 2024, slide 10). At this stage, officers focus on tactical support and start to build their business acumen, covering a breadth of operational and shore-based assignments.

As they progress from Lieutenant Commander to Commander, Supply Corps officers capitalize on their postgraduate education and the operational experience they gained as junior officers to further refine their leadership abilities and supply chain expertise. They undertake operational leadership positions and start working with multiple senior stakeholders at various Combatant Commands. The extensive scope and responsibilities of the Supply Corps result in non-traditional career paths. Supply Corps officers serve in various roles such as operational afloat and expeditionary commands, Geographic and Functional Combatant Commands, staff positions within the Office of the Chief of Naval Operations (OPNAV) and the Secretary of the Navy (SECNAV), Joint Systems Command, as Flag aides, and as instructors at the Navy Supply Corps School.

F. VALUED ACHIEVEMENT FOR PROMOTION

Despite differences in size, accession entry points, paygrade dispersion, and milestone billets; the communities share a common theme of values to promotion: "sustained superior performance in assigned role" (MyNavyHR, 2024, p. 5). Officers in each community will likely fail to promote without meeting the desired values and milestones present within each of their communities. The communities studied in this thesis contain similar timing for afloat opportunities, although in different quantities, and share the familiar struggle of filling operational and utilization tour requirements under current inventory constraints. Lieutenant Commanders (O4) serve as the first of the control grade billets- "the number that the Navy can have in each of these billets set by law and cannot be exceeded" (MyNavyHR Human Resources, 2023, para. 13). Each community maintains what is known as a community brief which clearly delineates community values and necessary items for promotion.

Figure 3 lists the specific community values for promotion to Lieutenant Commander as of 2023. In the figure, the shaded boxes indicate promotional values unique to the individual community. There are common themes across the services such as "sustained superior performance," individual community qualifications, warfare insignia either earned from the source community or within the community, and education (MyNavyHR, 2024 slide 2). Boxes with an X and an asterisk indicate similar values across communities but with added delineations unique to that individual community. The Public Affairs community values sustained superior performance but adds emphasis by stating the performance "directly supporting senior leaders (CAPT/ Flag) and implementing public affairs in operational/high visibility environment" (MyNavyHR, 2024 slide 33). The Oceanography states that the performance must be "across multiple operational and/or leadership tour" (MyNavyHR, 2024, slide 29).

The Foreign Area, Oceanography, and Supply Corps value officer warfare qualification but each community treats warfare qualification differently. The Supply Corps and the Oceanography communities have individual community warfare insignia and value attainment of additional warfare pins despite original accession source (Department of Defense, 2024b). Both the Oceanography community and the Supply

Corps community value operational tours, in addition to sustained superior performance. The Human Resources community is the only community studied that annotates a completed master's degree and not just progress towards a degree as a specific promotional value. In addition, the Human Resources, Foreign Area, and Public Area communities all value additional qualifications outside of warfare insignia. Many of these qualifications are captured in Additional Qualification Designators.

Valued achievements prior to LIEUTENANT COMMANDER					
	Human Resources (1200)	Public Affairs (1650)	Foreign Area (1710)	Oceanography (1800)	Supply (3100)
Sustained superior performance in current and/or source community tours	X	X*	X	X*	X
Attainment of officer warfare qualificaiton				X*	X*
Progress toward community specific master's degree	X	X			
Completion of community specific master's degree	X				
Command Eligible (2D1)	X				
Current Professional certification: PHR, SPHR, or CDFM	X				
Required to qualify as Independent Duty PAO, awarded 7IQ AQD		X			
JPME Phase 1 highly desired		X			
Certifications and Accreditations: APR/APR+M/CMP/SCMP highly desired		X			
Progress towards FAO qualification with consideration given to re-designation timing			X		
Inclusive teamwork while demosntrating increasing levels of responsibility and sound judgement			X		
History of assignments which reflect diversity in scope, complexity, and mission commensurate with their rank					X
Two operational tours with one in an afloat tour (or one Supply Corp operational tour and source community)					X
Department Head tour (highly valued)					X

Figure 3. Valued Achievement Prior to Lieutenant Commander across Communities. Adapted from MyNavyHR (2024)

Figure 3 delineates the community values for promotion to the rank of Commander as identified in 2023. Similar to Figure 2, the figure highlights common themes such as sustained superior performance- especially in community-specific milestone billets- and the attainment of a master's degree with a focus relevant to the respective community. These elements are pronounced across all the communities. Each community emphasizes a unique set of billets, including milestone and leadership positions, as vital to their promotion criteria.

Advanced education, particularly a master's degree, is a value pronounced in every community. The Public Affairs community urges officers to pursue degrees in fields related to communication. Those in the Human Resources community are recommended to seek advanced education in Operations Analysis, Financial Management, or Human Resources. Oceanography officers are expected to obtain degrees in Oceanography. Conversely, Supply Corps officers are advised to pursue academic credentials in business, data science, or aligned with military service college affiliations. Notably, the Public Affair sand Human Resources communities are the only two among the studied groups that necessitate a civilian professional certification for their officers (MyNavyHR, 2024).

Figure 4 reflects the strategic and timely emphasis on professional development within the Restricted Line and Staff Corps community promotion system, signifying a methodical and unified approach in creating officers who are well-versed in both military operations and specialized academic disciplines.

Valued achievements prior to COMMANDER					
	Human Resources (1200)	Public Affairs (1650)	Foreign Area (1710)	Oceanography (1800)	Supply (3100)
Sustained superior performance	X*	X*	X*	X*	X*
Completion of master's degree in alighnment with community	X*	X*	X*	X*	X*
Command eligible or Command qualified (2D1 /2D2)	X				
Intermediate or higher in primary career track	X				
Current professional certification	X*	X*			
Completion of JPME Phase 1	X	X		X	
Sustained superior performance in operational, major staff, and indepdendent duty assignments of increased scope in public affairs responsibility at shore and sea billets.		X*		X*	X*
Command eligible or Command qualified (2D1 /2D2)	X				
Completion of/progress towards becoming a Joint Qualified Officer is highly desired		X			
Fully Qualified Criteria: FAO Qualification ("FAO Q" AQD), JFAO Phase 1, JPME 1, documented foreign langauge proficiency level of 2/2 or above			X		
Completion of advanced strategic and operational planner courses (MSOC, MOPC, JAWS, JIOPC, etc.)			X		
Fellowship or continued education focused on national security or strategic warfighting advantage			X		
Completion of two or more operational tours and attainment of at least one Supply Corps warfare qualification					X*
Exposure to a range of operational and support tours in Fleet logisitcs, supply chain, acquisition, and life cycle sustainment					X
Proven potential to manage complex processes, lead people and organizations in tough, high-impact environment, while effectively integrating logistics and sustainment functions					X

Figure 4. Valued Achievement for Promotion Prior to Commander across All Communities. Adapted from MyNavyHR (2024).

Each community encourages officers to seek advanced education in areas pertinent to their specialty. Both tables collectively reflect the Navy's strategic emphases on professional development, and advocate for well-rounded leaders with both military operational and academic specialty. The biggest differences arise in the value placed on an officer warfare qualification and the value of operational tours alongside sustained superior performance.

Previous literature has addressed the utilization rates in both the Unrestricted Line and Restricted Line communities. However, previous literature has failed to analyze why differences in utilization rates exist. The communities studied unanimously agree on the importance of sustained superior performance and the pursuit of additional education through graduate studies. Differences between communities becomes apparent when considering the types of Lieutenant Commander milestone, leadership, and afloat sea billets, additional warfare qualifications, additional civilian level qualifications, command opportunities, and ultimately, community values. These distinctions highlight the 'why' behind the differing utilization rates and emphasize that these differences cannot be addressed by historical data alone.

III. LITERATURE REVIEW

Researchers have investigated the relationship between graduate education and education utilization rates in the last 20 years, explored appropriate obligatory service requirements (OBLISERV), tour lengths, and methods to increase education utilization tours. This chapter synthesizes the literature on the value of graduate education in the military, overall graduate education utilization rates in the military, the differences in utilization for Restricted Line and Unrestricted Line communities, and current recommendations for improving utilization in select communities. Across the studies I find the Unrestricted Line communities have the lowest levels of graduate education while the Staff Corps communities have the highest level of graduate education utilization. The Staff Corps communities consist of the Nurse Corps, Medical Service Corps, Medical Corps, and Judge Advocate General Corps to name a few. These communities are highly specialized and routinely fill billets that directly pertain to their extensive and often costly training. Despite Department of Defense instructions guiding graduate education utilization, each community approaches the utilization of graduate educated officers differently due to manning, operational requirements, and community career progression.

A. THE MILITARY AND ITS VALUE OF GRAD EDUCATION

Before delving into graduate education utilization rates, we must first address the value and cost of graduate education for the military. The Department of the Navy employs 56,000 officers tasked with "recruiting, training, and organizing personnel to deliver combat-ready naval forces to win conflicts and wars while maintaining security and deterrence through sustained forward presence" (Stubbs & Tangredi, 2021, p. 70). With the growing complexity of military equipment, the rapid development of cyber warfare, and the instability in regions around the world, the military needs academically trained officers to meet global security needs (Department of Defense, 2024a). The Navy declares that "education is essential in enabling a resilient, knowledgeable, and adaptable force ready to meet the demands of dynamic, fast-paced, multi-mission environments"

(Office of the Chief of Naval Operations, 2015, p. 2). When an officer completes a master's degree, they earn "subspecialty codes or numerical depictions of the education and training discipline learned" (Pate, 2012, p. 1). As mentioned in the previous chapter, officers are awarded subspecialty codes to signal specific levels of education, skills, and/or knowledge acquired through experience or formal educational instruction. Subspecialty codes also signal what billets require officers with a specific set of education, skills, and/or knowledge needed to satisfactorily accomplish all tasks within the billet. The Navy Personnel Command, PERS-451 tracks officer subspecialty codes and when and how often subspecialty-qualified officers fill validated subspecialty-coded billet; thus, computing the utilization rate. Each community measures its utilization rates in compliance with Department of Defense Instruction (DODI) 150.23 and Department of Defense Instruction (DODI) 1322.10, which, in summary, states that officers shall serve in utilization tours within the first two tours of graduating.

Kamarck et al. (2010), within the Rand National Defense Research Institute, analyzed a combination of 4,500 billets in the Surface Warfare and Meteorology communities that required graduate education. The study compared the billets to the total number of subspecialty-coded Naval officers and determined that utilization was lowest in the Unrestricted Line community in comparison to the Restricted Line community. Beginning with a review of past civilian and military literature, comparing the funded graduate education programs across services to identify metrics used to assess return on investment, and finally analyzing the data to understand the demand (billets) in comparison to the supply (subspecialty-coded officers), the study analyzes how well the Department of Defense matches officers to billets. Using these methods, the study finds that graduate education is used for more than filling necessary billets, it broadens knowledge and training of officers (Kamarck et al., 2010). Kamarck et al. go on to argue that the "value of education for the Navy lies in improved productivity, better decision-making, and increased retention" (Kamarck et al., 2010, p. 10). Graduate education is a human capital investment and may not be quantifiable, but rather brings a range of goods to society and specific billets, increasing productivity and improving critical thinking skills (Kamarck et al., 2010). The study continues by stating graduate education is a

means to increase technical and non-technical competencies or "soft skills" valued across the Navy in many different billets, whether or not they are subspecialty coded (Kamarck et al., 2010). Using cost of living and officer entitlements estimates in 2010, they calculate graduate education costs of $245,000 per officer per year while they attend graduate school (Kamarck et al., 2010). To adequately recoup the investment in graduate education expenses, they conclude that officers need to serve in subspecialty coded billets beyond one tour and ideally in multiple utilization tours for the remainder of their career (Kamarck et al., 2010). Kamarck et al. signal that graduate education is the summation of human capital and social capital. The study defines human capital as a combination of hard and soft skills. The social capital is made up of "bonding" and bridging" (Kamarck et al., 2010, p. 13). It is through this added sum of human capital and social capital that researches can begin to study the "possible quantitative and organizational benefits such as: productivity, retention, filled billets, and used officer" (Kamarck et al., 2010, p. 13).

The study declares that multiple utilization tours are the only way to recoup the Navy's monetary investment, Kamarck et al. (2010) argue that the Navy's assessment of graduate education and how it manages graduate education metrics is too focused on filling validated billets and meeting present needs. However, the Navy's management of graduate school educated officers emphasizes building future capabilities (Kamarck et al., 2010). With that, the study concludes by recommending changing the policy language to be more direct and stating that graduate education is used for future capabilities, and, therefore, the Navy needs to make the process for selection for graduate education more competitive (Kamarck et al., 2010). One way to make the process more selective is by enacting a policy stating that 90 percent of officers advancing to the rank of O-5 must have graduate degrees. By enacting the recommendations, the Navy would diligently need to review the officers for graduate education and project future performance based on past performance. Kamarck et al. (2010) also mention adjusting the metric in which the Navy measures utilization by moving away from the one-tour utilization focus and focusing on additional benefits a graduate educated officer brings to the military. This study, in addition to others that I review, calls for changes in how graduate-educated

officers are tracked and managed to fully leverage the knowledge, skills, and abilities garnered from graduate school.

B. UTILIZATION TRENDS

Seeing that graduate education is valuable to the Navy, we must look at the historical trends of graduate education utilization rates across Navy communities. In 1994, Terri Brutzman uses the 1993 Officer Master File, encompassing 39,745 officers, to analyze the utilization and retention rates of Naval Officers who receive Navy fully-funded graduate education (Brutzman, 1994). The study analyzes the select officers who entered the Navy in 1980 through 1993, omitting the Medical Corps, Dental Corps, Judge Advocate, and Nurse Corps and who received graduate degrees from Naval Postgraduate School (NPS) and select civilian institutions (CIVINS) (Brutzman, 1994). Using a quantitative approach, Brutzman compares the number of subspecialty-coded officers to the number of available subspecialty-coded billets for that officer to gain a sense of the availability of subspecialty-coded billets for graduate-educated officers (Brutzman, 1994). The author analyzes the number of times an officer fills the billet with the correct subspecialty code to determine if officers use their codes multiple times throughout a career (Brutzman, 1994). The author uses the DoDI 1322.10 to define DOD compliance rules that state an officer is compliant if they utilize the awarded subspecialty code within the first two tours following graduation in an equivalent subspecialty-coded billet (Brutzman, 1994). For example, if an officer is awarded a 3130T code signifying they are a graduate of the Manpower Systems Analysis program at NPS and immediately serve in a 3130 coded billet, they are considered compliant.

Later, the officer's subspecialty shifts to 3130R, showing that the officer was awarded the subspecialty code and then served in an 18-month tour requiring that subspecialty code. Brutzman then introduces a new term titled overall compliance as a metric that calculates if an officer ever completes a utilization tour (Brutzman, 1994). Brutzman calculates both metrics to show the comparison between DOD Compliance and Overall Compliance to make recommendations for utilization improvement later (Brutzman, 1994). These two definitions become the determining factors for the differing

compliance metrics. Using the definitions above, Brutzman summarizes the utilization rates between Restricted Line and Unrestricted Line communities by reviewing subspecialty code graduates compared to subspecialty coded billets the graduate filled. The study finds that Unrestricted Line designators have the lowest DOD utilization compliance rate, particularly within the Special Operations community at 30.8 percent and the Special Warfare Community at 56.7 percent (Brutzman, 1994, p. 43).

However, when using overall compliance as the metric, they find a 20-percentage point increase in utilization rate for the Special Warfare community, signaling that although specific communities cannot or may not use the new subspecialty code immediately, an officer often uses it prior to separation from the military. When analyzing utilization from the DoDI 1322.10, the highest utilization rates within the Unrestricted Line Community were found within the Submarine Community at 69 percent and the Surface Warfare Community at 63.8 percent (Brutzman, 1994). The Unrestricted Line Community's overall compliance for the Submarine and Surface Warfare community jumps to 75.4, a 5.4 percentage point increase, and 75.8 percent for Surface Warfare, a 12-percentage point increase when analyzing overall compliance (Brutzman, 1994, p. 43). As stated in the analysis the DOD directive does not delineate a target utilization rate. The office in charge of graduate education is PERS-213, which uses 70 percent as the target utilization rate; thus, anything greater than 70 percent is considered acceptable (Brutzman, 1994, p. 40). Brutzman concludes that utilization rates tend to be higher in the Restricted Line communities because of their specialized missions and assigning officers immediately to subspecialty utilization tours (Brutzman, 1994, p. 36). Brutzman's final recommendation suggests a more qualitative approach for future analysts. It suggests an overall revalidation of existing subspecialty billet requirements in addition to a billet review while also reaffirming subspecialty code necessity in specific billets. Previous research addresses utilization differently, and the overall compliance method conjured up an interesting perspective on utilization, showing 70 percent of Unrestricted Line officers use their subspecialty code in billets throughout their careers despite only 60 percent being DODI 1322.10 compliant. This study and

earlier studies, however, fail to identify the drivers of the utilization differences between the communities.

Borrelli (2008) is one of few studies that analyzes the differences in communities and varying utilization rates. Borrelli (2008) studies both the Unrestricted Line and Restricted Line communities and documents the variation in utilization rates and the two communities can close the gaps. Unlike the other studies, Borrelli's study looks at particular subspecialty codes to gather insightful information about utilization rates within a few subspecialties (Borrelli, 2008). Borrelli (2008) looks at all 1,640 officers within the Navy Financial Management subspecialties, particularly the 900 with a Master's degree and a subspecialty in Financial Management subspecialty, and compares the differences in the Financial Management subspecialty utilization across the Navy, Army, and Air Force. The study first analyzes the instructions governing how each service manages, tracks, and utilizes the FM subspecialty. Borrelli (2008) then uses the Nadler and Tushman (1980) Congruence Model to address how the Navy can better utilize the FM subspecialty. Borrelli (2008) uses a qualitative approach to apply the eight-step fundamental problem analysis to identify why the Navy had a lower FM subspecialty utilization rate in comparison to that of the Air Force and Army, identify critical problems, generate and identify causes and finally identify action steps (Nadler & Tushman, 1980, p. 48). The Air Force and Army had a nearly 100 percent utilization rate (Borrelli, 2008) by implementing stand-alone career fields for Financial Management Officers, yet the Navy had a 21 percent FM utilization rate (Borrelli, 2008).

In addition, Borrelli (2008) focused on the strengths and weaknesses of different services and concludes that the Air Force and Army FM utilization rates greatly surpasses the Navy because of the individual career paths for FM officers and the career progression opportunities within the military for FM subspecialty officers. Air Force and Army officers can obtain advanced degrees in FM and immediately use them in coded billets that are valuable in promotion considerations and critical billets. Like the suggestions Borrelli (2008) provides, other studies suggest solutions to the disparity in the FM utilization rates through billet review. Studies suggest a subspecialty billet determination examination to analyze how well the Navy fills current billets with NPS

and CIVINS subspecialty graduates (Brutzman, 1994; Kamarck et al. 2010). We see similar suggestions for subspecialty review in an early study by Brutzman (1994). However, thus far, studies need to analyze why such gaps exist and whether the current methods for measuring utilization rates are worthwhile.

C. POLICY ALTERATIONS

The only literature that questions the DODI 1322. guiding graduate education occurred in March 1993, when student David Simboli analyzed the subspecialty utilization rate for the Unrestricted Line community. Using the officer Master File (OMF) of all Unrestricted Line officers who graduated from NPS in 1985, Simboli strictly adheres to the compliance standards outlined in DODI 1322.10 and calculates the utilization rates for General Unrestricted Line, Surface Warfare, Submarine Warfare, Special Warfare, Special Operations, Pilots, and Naval Flight Officers (Simboli, 1993). The study begins by annotating officers in 1985 who were awarded a graduate degree and subspecialty code (Simboli, 1993). Taking the yearly OMF data and merging the information by social security number (SSN), Simboli creates a longitudinal database of subspecialty-awarded officers based on SSN (Simboli, 1993, p. 34). Simboli divides the number of DOD-compliant graduate-educated officers by the total number of officers that graduated to gain a DOD compliance rate. The study shows DOD compliance percentage column, the percentage of non-DOD compliance officers, the total number of officers, and the percentage based on rank or designator (Simboli, 1993).

Some results greatly contrast Brutzman (1994), particularly the Special Warfare Officers utilization rate of 56.7 percent according to Brutzman (Brutzman, 1994, p. 42). Special Warfare Officers (1130) have a 100 percent utilization rate (Simboli, 1993, p. 22). In Brutzman's study, Surface Warfare (1110) had a 63.8 percent utilization rate (Brutzman, 1994, p. 50), and in Simboli's study, we see a 75.4 percent utilization rate.

Based on the guidelines published in DODI 1322.10, the Unrestricted Line career progression only allows a utilization tour after completing two operational tours, the soonest six years post-graduation. The study suggests that outdated policies should be narrower when defining utilization (Simboli, 1993, p. 31). Simboli suggests that current

policy guidance fails to address operational needs. Some officers who obtain a graduate degree may be "better suited to serve in positions that may not qualify as subspecialty utilization" (Simboli, 1993, p. 68). Like Simboli's questions, what is the rationale for the DOD guidelines that utilization must occur in two tours? Questions, I too, pose in my thesis are, what can communities do and what policies need to change? One of the major limitations of this study was the length of time the authors tracked the officers; "officers are only tracked for seven years at most, and thus, we need to see data beyond seven years and if an officer used the subspecialty code in their career" (Simboli, 1993, p. 33). In addition, by omitting the Restricted Line Community and Staff Corps community, Simboli misses the opportunity to compare utilization rates across the Navy and decipher if the career pathways in certain communities generate higher utilization rates.

D. SUMMARY

The current literature shows a common trend: graduate education utilization is lowest among the Unrestricted Line communities and higher for the Restricted Line and Staff Corps communities. The topic of utilization rates is easy to evaluate when looking at qualitative metrics. However, examining the why behind the differences in utilization rates is infinitely more complex, and more research is needed. Kamarck et al. (2010), Borrelli (2008), Brutzman (1994), and Simboli (1993) show that utilization varies not only across services but across different communities within the Navy. The Unrestricted Line's utilization rate hovers around 50 percent at best and it would take officers "multiple career-long utilization tours to recoup the monetary costs" (Kamarck et al., 2010, p. 2). The Restricted Line and Staff Corps communities have higher utilization rates but still have much to improve. Brutzman (1994) suggests an inclusive method of measuring utilization across an officer's career. However, it is clear from other studies and the mandates provided in DOD Instruction 1322.10 (Department of Defense, 2008) that his method needs to be better received; it is not considered a standard to measure success for the Navy (Brutzman, 1994). Across all studies reviewed, a standard recommendation of executing subspecialty reviews for billets annually, better-integrated management between stakeholders, OCMs, and community managers, and details to maximize utilization and alteration in current Department of Defense policy. Each study

takes a qualitative approach comparing the number of subspecialty-coded officers serving in subspecialty-coded billets and compares them to the total number of subspecialty-coded officers within a specific timeframe. Only two studies, Kamarck et al. (2010) and Simboli (1993), recommend changing the DOD guidance for graduate education utilization; the other studies recommend communities change guidance to improve their utilization numbers. My thesis aims to qualitatively study the nuances between communities regarding career progression and subspecialty utilization while also recommending DOD policy revision to accurately reflect growing operational demands placed upon the Navy.

In the next chapter, I review utilization rate trends across select Navy communities. The qualitative portion of the thesis will extract key themes provided by Navy stakeholders, Officer Community Managers, Community Detailers, and policy personnel on the procedures, policies, and methods for tracking and analyzing current utilization rates and recommend solutions for improving utilization rates.

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IV. HISTORICAL UTILIZATION TRENDS

This chapter examines utilization rates among various Navy communities, specifically the Human Resources, Oceanography (METOC), Public Affairs (PAO), Foreign Area (FAO), and Supply Corps (SUPPLY) communities from 2004 to 2020. This examination not only aligns with the Secretary of the Navy's "Get Real, Get Better" initiative, which mandates leaders to recognize and address issues while devising viable solutions, but it also embodies the call to "embrace the red" by documenting and seeking to enhance the Navy's practices in graduate education utilization (Department of Defense, 2022, para. 5).

Using the consolidated data provided by the Naval Postgraduate School Institutional Research Department, sourced from the Officer Personnel Inventory and the Navy Total Force Manpower Management System, the Bureau of Naval Personnel (PERS) has compiled comprehensive statistics for this study. The calculation of utilization rates, within this context, pertains to the officers who have partaken in Navy-sponsored graduate education leading to a Master's degree and are consequently committed to a utilization tour. The Bureau of Naval Personnel monitors the officers with an initial "subspecialty 'P' code" and when the code transitions to a "subspecialty 'Q' code"- indicating the officer utilized their graduate education in a subspecialty validated billet (Bureau of Personnel, 2024, p. B-10).

This analysis aims to examine the consistency in which the Navy assigns educated officers to roles that leverage their advanced academic training, thereby maximizing the return on investment for the Navy's educational investments and ensure the optimal employment of knowledge, skill, and abilities within its officer corps.

In alignment with the first initiative, "Get Real, Get Better," leaders are tasked to document known problems and formulate feasible solutions (Department of Defense, 2023). By studying utilization trends, we are what the initiative calls out "embracing the red" and documenting utilization rates we wish to improve and the practices the Navy

uses for graduate education utilization (Department of Defense, 2023, para. 5). Figure 5 depicts a graphical representation of the utilization rates:

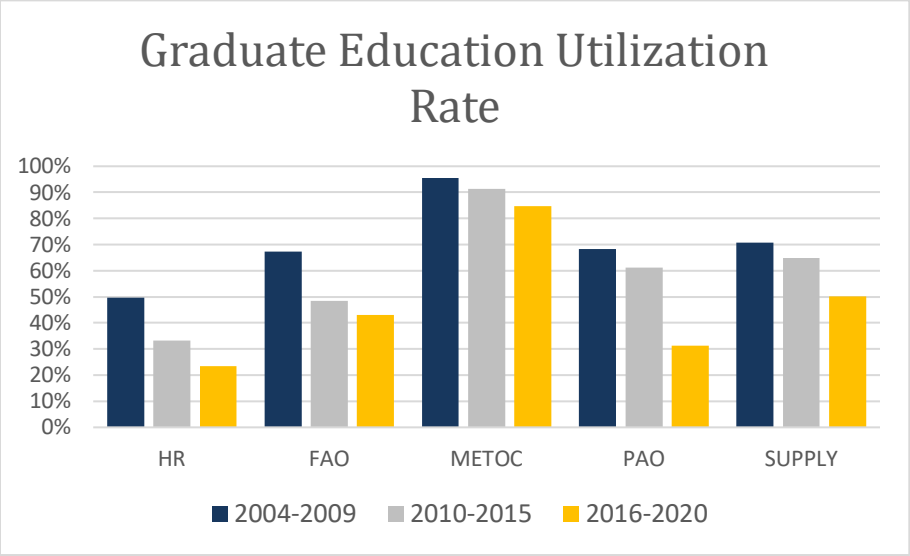

Figure 5. Graduate Education Utilization Rates 2004-2020. Adapted from Officer Personnel Information System (2023).

The Human Resources community utilization rates varied greatly over the span of 17 years, with an average rate of 51 percent. The community achieved a peak utilization rate of 100 percent in 2005, followed by a sharp decline to 43 percent in 2006. In 2008 and 2009, the utilization rate stabilized at around 50 percent, before rising again to 75 percent in both 2010 and 2011. However, utilization declined again 2015, plummeting to 36 percent, and remained low through 2016 and 2018, with the lowest being 33 percent. In 2019, the utilization rate was particularly low at 18 percent, suggesting potential anomalies or data insufficiencies. Remarkably, 2020 saw an increase to a 100 percent utilization rate, a trend that persisted into subsequent years.

Conversely, the Oceanography community demonstrated consistently high engagement, with an average utilization rate of 91 percent. This community achieved a 100 percent rate in over 8 of the 17 years under review. The lowest rates were recorded in 2018 and 2019 at 80 percent, with a minor decrease observed from 2016 to 2020, despite the majority of graduates completing their education utilization tours in 2017 and 2018.

The Public Affairs community presents a divergent case, largely due to its distinct educational pathways, predominantly through prestigious institutions such as Georgetown University, San Diego State University, and Syracuse University. An initial 68 percent utilization rate from 2004 to 2009 was observed, which relatively stabilized up to 2015, subsequently declining to 57 percent in 2017 and drastically dropping to 0 percent by 2020. This stark decrease may reflect challenges in data accuracy rather than actual utilization rates.

These findings highlight the variability in utilization rates across professional communities, underpinned by factors such as institutional affiliations, educational pathways, and possibly data collection methodologies. The divergent trends observed, especially the sharp fluctuations within the Human Resources community and the consistent high performance of the Oceanography community, underscore the complexity of utilization dynamics. To better understand the factors driving these differences, I describe next the qualitative interviews with subject matter experts.

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V. METHODOLOGY

A. PARTICIPANT OVERVIEW

This chapter outlines the participant backgrounds, interview methodologies, the questions asked and an analysis of the feedback procured. The goal of individual interviews was to solicit insights, recommendations, and feedback from Navy stakeholders and subject matter experts that were both knowledgeable in graduate education utilization and billet subspecialty coding procedures. The study actively engaged Officer Community Managers, Detailers, Executive Assistants, and senior leadership to elicit expert insights. These professionals, averaging 14 years in subspecialty-coded procedures and Additional Qualification Designations (AQDs), presented recommendations to enhance postgraduate education utilization. Their expertise portrayed the best understanding of subspecialty coding, utilization procedures, community-specific manning levels, and barriers to education utilization. The research predominantly focused on Restricted Line communities, with inclusion of one Staff Corp community. Analyzed communities included: Human Resources, Oceanography, Public Affairs, Foreign Area, and Supply Corp.

B. SELECTION OF INTERVIEW PARTICIPANTS

I selected participants through the MyNavyHR community information portal in FY23, targeted Restricted Line Officer Community Managers (CDR to CAPT), Restricted Line Detailers (LCDR to CDR), and Executive Assistants within OPNAV N1 and Restricted Line communities.

A predetermined set of questions facilitated semi-structured interviews with individuals to capture a diversity of perspectives. Interviewees consisted of current and former (within two years) Officer Community Managers and Detailers, chosen for their extensive knowledge and influence over inventory management tools amid policy changes and fluctuating manning levels.

The MyNavyHR Career Management site aided in locating detailers and officers, while the PERS-44 directory provided specific contacts for Public Affairs, Human

Resources, and Supply Corps personnel. The Active Officer Community Management (OCM) Division BUPERS-31 site offered a general email for Oceanography, and Foreign Area Officer community managers. Each identified contact received a direct email invitation, the nature of the study, and a request for an interview (refer to Appendix A for the email template).

Out of 15 invitations, 14 participants agreed to interviews, translating to a 93% participation rate. The demographic composition included Commanders (O5), Captains (O6), and two civilian Executive Assistants, with a 15 percent representation of female participants.

1. Interview Procedure

Interviews were conducted virtually through Microsoft Teams, except for one via telephone, from November 8, 2023, to January 26, 2024. These sessions, scheduled for an hour, averaged 67 minutes. Microsoft Teams facilitated the recording for transcription purposes, with the exception of the telephone interview. Post-interview, I downloaded and refined transcripts, standardizing Navy acronyms to enhance clarity. Responses reflected personal insights, not the official stance of the Department of Defense or the U.S. Government.

Each session began with an introduction of my role, advisory team, and study objectives, securing consent for transcription and ensuring participant anonymity. Discussions centered around themes of (1) inventory and manning, (2) community billets, (3) billet subspecialty coding, (4) subspecialty utilization, (5) subspecialty officer tracking, (6) subspecialty code utilization, and (7) general remarks. The interview concluded by soliciting recommendations for optimizing graduate education utilization and improving the tracking of subspecialty coded officers and billets (Appendix B lists some of the interview questions). Later interviews included questions pertaining to Additional Qualification Descriptions, based on previous feedback.

2. Interview Coding

To extract key themes based on interview feedback, I used Dedoose Software Code Application to aid in extracting key themes and cross reference common remarks. By using Dedoose Software Code Application, I could identify repeat codes across multiple participants and focus on codes with larger numbers, indicating similar and repeat views. The initial coding adhered to interview themes, while subsequent rounds expanded the code list and introduced sub-codes to clarify emerging themes. I defined each code by annotating corresponding interview statements. Ultimately, the coding framework identified 20 main codes and 17 sub-codes.

3. Analysis

For the initial round of coding, I assigned codes based on the list of questions generated for interviewees. The initial codes entailed: Community Structure/ Values, Subspecialty Utilization, Billets, Education, and Inventory/Manning.

After the initial process and first four interviews, the remarks made it clear that additional questions better address the intended research questions. With the new insight I added questions about billet coding processes, billet coding, and added questions addressing OPNAV personnel and procedures. With the additional questions, I added the following codes: Subspecialty Billet Processes and General Remarks

After the two rounds of coding, I felt like the data was sufficiently categorized and ready for analysis. The second round of analysis consisted of Dedoose's Code Application qualitative analysis chart. Dedoose provided visuals of the codes across all groups of interviewees. Figure 6 shows an image of the final coding based on the 10 Microsoft Office transcripts.

Media \ Codes	Billets (RQ 8,9,10)	POM Process	how are billets assigned p/q	process of assigning p-codes to	milestone/command operation	process	Community Structure/Value (RQ 1,2)	grad ed valuable for promotion to	officer's career trajectory and grad	Education (RQ 11,12)	additional billets to NPS?	metrics/performance indicators	General Remarks	Inventory	current inventory	Subspecialty Utilization (RQ	Are subspec officer tracked	community challenges that	explain the utilization tracking	improvement process	percentage of officers who do a	Totals
Participant 9.docx			1		1	4									3		1			5		15
Participant 8.docx						1						1	2						1	1		6
Participant 7.docx			6		1	12			1						6			1		2		29
Participant 6.docx		4	2		1	10		1	1						1		2	1	2	1	1	27
Participant 5.docx			2			6		1	1			2	1		5		2	4	1	12		37
Participant 4.docx			2		2	5		2	4			1	1		3		9		2	5	2	38
Participant 3.docx			1			5		1	2			4	2		3		1	2	1	5	1	28
Participant 2-.docx			3		4	14		2	2		1	1			1		10	4	3	11	2	58
Participant 10.docx						1	2	1	1						2			3	1	9		20
Participant 1.docx	1		1		2	3	3	1	4			2		2	7	4	1	5	3			39
Totals	1	4	18		11	61	5	9	16		1	11	6	2	31	4	26	20	14	51	6	

Figure 6. Dedoose Software Coding Outcome

Using participant 2 as an example, the images signal the frequency with which the interviewee discussed and highlighted specific themes based on their feedback. Participants 2 had 14 separate remarks about processes in how billets are assigned subspecialty codes, milestone, and command billet procedures, as well as the assignment of subspecialty officers to billets. Comments with the most frequency are highlighted in red, here indicating that the overall process, indicated in the column heading, of coding billets as the number one issue across all participants, verifiable by looking at the column total of 61 displayed at the bottom of the column under 'process'. Moving further within the Participant 2 row, the row of 'improvement process' with a score of 11 marked in light orange shows that Participant 2 provided 11 separate comments on improving the Navy's processes for subspecialty coded officers and billets. The improvement process column received an overall marking of 51, the second-largest response rate after remarks

about current processes. The third highest response pertained to the column "current inventory" with a response of 31 separate remarks across all participants.

Under the media column, each participant, with the exception of four interviews conducted over the phone and in person, is uploaded into Dedoose. The transcript is removed of any personally identifying information. The most frequently referenced codes (indicated in red, orange, yellow, and green on Figure 6) across each of the 10 transcripts: Billet processes, Navy improvement processes, Billet-assignment of P/Q codes, Inventory, and Subspecialty Officer tracking.

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VI. FINDINGS

This chapter outlines the findings based on historical utilization rates and the interview feedback, emphasizing the need for consistent approach to subspecialty coding of billets and tracking of officer utilization. The chapter discusses subspecialty management practices, the challenges the Navy faces in terms of low officer inventory and incongruent practices, and the inability to adequately track both officers with subspecialty codes and subspecialty-coded billets due to insufficient processes. The Navy faces significant challenges, including a low officer inventory, which highlights the necessity to optimize the use of available skills. A possible strategy or solution entails embracing Additional Qualification Designators and reforming the Navy's utilization calculations.

A. DIFFERENCES IN SUBSPECIALTY MANAGEMENT

In response to queries regarding graduate education subspecialty tracking and management, the majority of respondents reveal a lack of active, routine monitors within their communities. The communities with higher utilization rates reported cyclical calculation of utilization rates either monthly or annually. Such procedures, particularly for the Supply Corps community, despite the regularity, has not translated into high utilization, primarily due to the insufficient inventory of officers at the Lieutenant to Commander levels.

In contrast, the Oceanography reported a continuous monitoring of utilization. The Foreign Area community declared that they needed permission from the first one star within their chain of command to deviate from a near 100 percent utilization rate. As a reminder, the Foreign Area community does not track subspecialty codes and instead uses Additional Qualification Designators for tracking because this best tie both the language proficiency and the region an officer is assigned. The high utilization in both the Oceanography and Foreign Area communities correlates with the unique technical and soft science skills demanded of their officers. As a Commander within these communities stated, "I think our community does the best out of all the communities in

terms of graduate education, because we do track it so closely and we keep it very close to our chest." Conversely, the Public Affairs community does not uniformly track utilization across all educational institutions, but they do utilize officers in billets immediately following graduation because of their job specificity.

The inability to track both subspecialty-coded billets and subspecialty officers in a single system makes the process cumbersome. Every Officer Community Manager reported that tracking graduate education utilization rates was not part of their routine procedures and only three communities reported ever providing specific utilization data to higher echelons. Of the communities, three reported having a clear process on tracking utilization but each process differed by community. One process entailed using Officer Assignment Information System- a database used to track officers and specific characteristics of that officer such as Additional Qualification Designations. One community commented on an annual review conducted by analysts within the community. And the remaining community reported using a combination of Total Force Management System and Fleet Training and Management System to gather a sense of subspecialty inventory and utilization. Community manager use both databases to track personal officer information, subspecialty codes, Additional Qualification Designations, and previous billets held. Regardless of the procedure, the time required by all was cumbersome and expended a lengthy manpower requirement across the Commanders and Captains.

On the opposite spectrum, the Foreign Area community does not use subspecialty codes to track utilization rates and instead focuses on Additional Qualification Designators as a better measure of utilization. A Commander in the Foreign Area community states, "it is not the subspecialty. Many of the degrees are going to have the 210X subspecialty associated with them, but if somebody were to go to a billet that had some regional focus as part of it, that would still qualify them for utilization." Despite the deemphasis of graduate education subspecialty tracking, the Foreign Area community has a utilization rate hovering at 90 percent because every graduate degree is regionally focused. The Supply Corps community stated a similar deemphasis of subspecialty codes and stated the following, "as a community we are going back to the community values

and we have deemphasized subspecialty. We noticed people were subspecialty or qualification chasing." Instead, the Supply community shifted to a "whole officer" picture and instead focuses on what knowledge, skills, and abilities are necessary to sit in pivotal Captain billets? From there, the Supply community backtracks and analyses which skills and knowledge are necessary at Commander and senior. When asked if the Navy as an entity is invested in tracking utilization rates one respondent said yes, the intent and interest is there but the data is insufficient. An OPNAV Executive Assistant commented, "data doesn't exist the way we need effort for the Chief of Naval Operations dashboard for education to show offices with degree and utilization to set up the code for that there's no way officer database and the billet database are two completely different systems and there's no good connection to show officers in this billet with subspecialty code." These remarks provide a common theme, tracking utilization for utilization sake is neither the priority nor the purpose of graduate education. The use of Additional Qualification Designators, graduate education, and experience as a whole create a capable force.

B. VARYING DEMAND SIGNALS ACROSS BILLETS

I asked three questions pertaining to graduate education subspecialty billets, operationally necessary billets and billet structure. In response to these questions only two officers of the 15 interviewed provided a positive response on billet coding throughout their billet base. The most successful communities with graduate education utilization rates above 80 percent, had key milestone, leadership, or necessary operational tours tied to subspecialty billets in education. According to a Lieutenant Commander within the Oceanography community, "all of our O4 Milestone billets are coded to have a Master's degree." Despite the large inventory of operational billets in the Oceanography community, they still demand high utilization rates of their community because a vast majority of the operational billets are P-coded, particularly at the Lieutenant Commander level. A Commander in the Supply Corps explained that most of their Lieutenant Commander operational tours are graduate education coded and that most officers embark on operational tours post graduate education, "there's an O4 operational tour, we have 47 of those a year and then we have a bunch of utilization tours. We have

subspecialty billets coded P at the O4 level and we try to push the majority of NPS graduates to utilization billets."

The Oceanography, Supply, and Public Affairs communities have a high percentage of operational tours needed for career progression and eventually promotion. Unlike the Unrestricted Line Communities, the Restricted Line communities have overall less at sea operational billets but still mandate milestone tours that routinely incur time at sea. Unrestricted Line officers routinely have lower utilization rates due to increased afloat operational demands. Despite a similar afloat demand at the Lieutenant Commander, the Oceanography community had a near 100 percent demand for at sea operational tours following graduation and maintained a near 100 percent utilization rate by ensuring officers earned graduate degrees in specialties they would use in the fleet. The vast majority of Oceanography officers earn a graduate degree in Oceanography from Naval Postgraduate School or Massachusetts Institute of Technology. After graduation, they immediately report to an aircraft carrier or a major staff upon graduation to serve an afloat milestone tour. Each afloat milestone tour is coded for graduate education which provides two key markers: it allows officers to fulfill an operational utilization tour immediately upon graduate education completion, ensures the knowledge and skills acquired in school are immediately used, and ensures the officer progresses in key billets. In addition, by coding milestone tours for graduate education, the Oceanography community sends a clear signal that they value the knowledge, skills, and abilities acquired from graduate school in addition to previous operational experience to expertly fulfill Lieutenant Commander milestone billets.

The remaining comments pertaining to subspecialty coded billets were overwhelmingly negative and highlighted an inefficient process on coding and managing these billets. Higher echelons and Officer Community Managers shared a common sentiment, billets throughout the fleet are improperly coded and some send the wrong signal as to the education and skillsets necessary to execute the billet. One officer mentioned the need to analyze all subspecialty billets in the fleet, a Commander commented, "we have to clean up and get extremely objective on what criteria warrants having the subspecialty code on, before we can really get after utilization."

When senior leadership hesitates to review a billet and its associated subspecialty codes, concerns about potentially losing an officer who holds a subspecialty code and a master's degree in the future may lead to two significant unintended career ramifications. First, neglecting to appropriately assign subspecialties to a billet could result in the incoming officer lacking the needed skills to effectively fulfill the position's duties. Second, inaccurately representing the skill requirements of a billet through subspecialty codes may inadvertently divert an officer from a potentially more community valued billet, thus limiting opportunities for career advancement and specialized knowledge within their specific community. In response to inquiries about improving the assignment of subspecialty codes to billets, one respondent suggested developing a new evaluation tool that leverages the skillsets associated with subspecialty codes. A Captain within the Human Resources community stated, "what we need is a very deliberate, objective set of questions or criteria that are kind of yes or no answers, so that we are not relying on interpretation, and we need to have a scoring system that says if you have eight out of ten of these things, then it qualifies as a subspecialty coded billet."

Using a definitive list of questions based on current criteria for subspecialty billet assignment would equip leadership with the necessary tools to accurately code billets, rather than relying on subjective opinions about the required skills. One respondent pointed out that the failure to properly assign subspecialty coded billets often results from soliciting the opinions of supervisors, who may not have relevant expertise themselves. Leaders tend to assign, or fail to assign, subspecialty codes based on personal bias rather than a systematic analysis of the billet using the list of skills associated with each subspecialty code.

Furthermore, the Public Affairs, Human Resources, and Supply communities indicate that the issue of billet ownership exacerbates the problem of misaligned subspecialty codes. These communities find the current billet ownership system burdensome, involving multiple stakeholders and lacking commitment from the Officer Community Managers responsible for staffing the billets with qualified officers. Billet Submission Officers, who fund the billets on behalf of their sponsoring entity, own a certain percentage of billets outside their community's control, leading to complicated

coordination for activating, deactivating, and assigning or removing subspecialty codes. Officer Community Managers express a strong desire to be involved when commands initiate or modify billets relevant to their community. A Commander in the Human Resources community lamented, "we don't own our own billets. When billets for 1200 suddenly appear, the Officer Community Manager is left wondering where they came from. These actions should be preceded by discussions and the submission of a manpower change request."

The absence of checks and balances for billet formation adds to the compounding mismanagement of billets and poor utilization. When billets are improperly coded with incorrect subspecialty codes, the community responsible for providing that officer may experience additional strain due to reduced inventory. This strain compounds when the new billet is a higher priority than the previous billet, dictating an immediate fill and thus gapping another billet that shares the same subspecialty code. Officer Community Managers and Detailers prioritize the fulfillment of critical billets, often overlooking the necessity of assigning or analyzing the appropriate subspecialty codes. This oversight arises from a predominant focus on promptly filling vacancies with available personnel. When a new billet requiring specific coding emerges, it is common for Detailers to employ a "rip to fill" approach, relocating an officer from an existing coded billet to meet the immediate needs of the higher-priority billet. While this practice may result in the assignment of a subspecialty-coded officer to a new billet, it simultaneously leaves the vacated billet unfilled, resulting in a net utilization rate of zero. The absence of alignment between billets and subspecialty codes, compounded by the lack of oversight from Officer Community Managers, results in detrimental outcomes for the broader community. Each interviewee emphasized that Type Commanders possess the authority to introduce new billets; however, providing advance notification ensures that Officer Community Managers can effectively address demands based on the current inventory and accurately code the billets according to the requisite skill sets. Establishing transparent channels of communication would enable Officer Community Manager to promptly identify billets necessitating graduate education subspecialties and facilitate the efficient assignment of officers to these positions. From these responses, it is evident that

the effective alignment between billets and subspecialty codes is crucial for optimizing personnel utilization within the community. The failure to ensure this alignment, along with the lack of oversight from Officer Community Managers, can lead to adverse consequences. Interviewees emphasized the significance of early notification to Officer Community Manager regarding new billets, enabling them to accurately assess demand and assign officers accordingly. Establishing transparent communication channels facilitates the timely identification of billets requiring specific skill sets, thereby enhancing the efficient routing of officers to these positions and ultimately benefiting the entire community.

C. PROCESS IMPROVEMENT

Respondents in the initial interviews clearly identified that both the processes for subspecialty utilization and billet coding require significant improvements. Consequently, I included additional questions in subsequent interviews to solicit recommendations for process enhancement. I specifically inquired about the review procedures for billets and subspecialties within their communities. Discussion within the Supply, Human Resources, Information Warfare, and Meteorology communities centered on the Total Force Manpower Management Systems, which detail all community billets alongside the necessary subspecialty codes, skill sets, and the Budget Submitting Officers responsible for funding each billet. Total Force Manpower Management System provides Officer Community Managers and Detailers with a complete inventory of active billets, including funding duration. However, some respondents pointed out inconsistencies, observing that the subspecialty codes assigned in Total Force Manpower Management System often do not accurately represent the actual requirements of the billet.

For instance, in the Human Resources community, when examining billets coded as 313X, which spans all ranks from Ensign (O1) to Captain (O6), only 134 billets are identified with the 3130X subspecialty, despite manpower being a critical aspect of Human Resources Officers' duties. Human Resources officers rely heavily on manpower expertise for their roles, yet surprisingly few billets are coded with the manpower subspecialty, 313X. Instead, Human Resources Officer Community Managers and

Detailers combine subspecialty codes, Additional Qualification Designations, and experience to match officers with billets.

While many respondents acknowledged that Officer Community Managers are the most knowledgeable about their communities and inventories, Officer Community Managers often feel excluded from the billet coding process. One Officer Community Manager remarked, "community managers need to be part of the billet buy and subspecialty coding process because they understand the community's perspective, the nature of the actual work, and whether the work aligns with community needs, which also influences promotion boards," said a Commander in the United States Navy. This exclusion can disadvantage both the officers and the organization if officers are not working in roles aligned with their community and subspecialty codes.

Moreover, respondents suggested that Budget Submitting Officers should collaborate with community managers and detailers, as a Captain in the United States Navy indicated, "Budget Submitting Officers need to be involved because they fund the billets; community managers and detailers, who will detail the officers, and placement officers, who represent the unit, all play a part. Ultimately, everyone has a mission that they need to accomplish successfully."

The disconnects between Budget Submission Officers, Detailers, and Office Community Managers often lead to billets being coded incorrectly or not at all, even when the job requires a specific skill set. This can result in a command lacking the necessary skills and an officer being unable to meet the job's demands. The problem intensifies when communities need to fill essential operational billets or those necessary for career advancement, such as milestone, sea, command, and leadership roles. These billets often require more expertise, potentially a master's degree, for an officer to perform effectively. The Oceanography community, for example, assigns subspecialty codes to Lieutenant Commander milestone billets to ensure officers meet the minimum requirements. Similarly, the Public Affairs community ensures key billets supporting Flag Officers have appropriate subspecialty codes and education.

The lack of effective checks and balances in coding and billet management leads to complex procedures to ensure a sufficient supply of appropriately coded officers. The Supply community addresses this by conducting thorough billet scrubs, but such efforts are labor-intensive and lack accountability, risking inaccurate monitoring of utilization rates. This issue is compounded by billets being activated or deactivated without informing Office Community Managers and Detailers, leading to gaps in manpower and utilization rates that do not reflect the true state due to incongruent coding processes. A commander commented:

> There are certain actions that higher ups have the authority to do without the requirement of something as formal as a Total Force Manpower Management package. And so that's where the disconnect is. It is within their authorities and yet the community managers don't necessarily get notified and so it's just back to ownership of the billets.

As warfighters request additional support from the Restricted Line communities in the form of initiating billets with or without subspecialty coding, they inadvertently dig a greater hole for utilization depending on how they code the billet. If a Type Commander activates a billet with a requirement for a graduate-educated officer, it may receive higher priority than another billet with a similar requirement, thereby increasing the demand for officers that the Officer Community Manager may struggle to fulfill. This chain reaction underscores the critical importance of appropriately coding billets, not only for mission success but also for aligning necessary skills effectively. A straightforward solution to this issue entails centralizing all manning requests through a singular system. All respondents echoed a similar sentiment regarding the need for a unified system for billet activation and deactivation. A Commander in the Supply Corps commented, "there shouldn't be two separate systems for the way that billets come on and off, and even if that's a notification in Total Force Management System that a bulk manning action is occurring, I think it should at least be there." By establishing a single source, Officer Community Managers and Detailers can more effectively track required billets and proactively address necessary subspecialty codes as needed for each role.

D. INSUFFICIENT OFFICER INVENTORY

The final theme highlights the insufficient number of officers available, impeding the fleet's capacity to meet the growing demands for personnel. The decline in officer numbers, coupled with ongoing retention issues, hampers not just the filling of critical billets but also the assurance that officers with the necessary skills, obtained through education and training, are available for high-priority assignments. Just three years ago, the Supply Community reported a utilization rate over 85 percent. It has since pivoted from a focus solely on subspecialty codes to a more comprehensive approach that encompasses the skills and abilities vital to meeting the increasing demands of the fleet. "Currently, we're facing the challenge of being 200 officers short of authorized levels. Utilization and operational tours that were mandated for everyone two or three years ago are now impractical for all to complete," remarked a Commander from the Supply Community. This shortage presents the dual issue of recruiting an adequate number of officers, particularly at the control grade ranks, and retention challenges. Another Commander in the Supply Corps noted, "The shortfall in inventory arises from multiple factors, including an increase in control grade billets between 2019 and 2020 and a drop in retention. We've seen a 30 percent reduction in retention at the Commander level," said a Commander in the United States Navy. The Public Affairs community, likewise, has seen substantial billet growth, which has necessitated the prioritization of high-priority assignments, despite concerns about the overall health of the community. A Commander within the Public Affairs community observed, "We've had a growth of approximately 10 percent to 12 percent in our O4 billet base in the last two years."

Contrary to expectations, the Public Affairs community, which is the second healthiest group, has only 34 percent of its billets coded for graduate education. Earlier, it was mentioned that the Foreign Area community does not track utilization based on subspecialty codes. Although the community values graduate education, it focuses on developing a mindset and skillset through the use of Additional Qualification Descriptions, thus equipping officers to utilize their full range of skills. Rather than tracking utilization merely for the sake of it, the combination of subspecialty codes, Additional Qualification Descriptions, and experience ensures a capable fleet.

E. SUMMARY

The analysis undertaken highlights various challenges within the military community management framework, particularly concerning the alignment of billets with appropriate subspecialty codes and the utilization of officers. There is a clear consensus among interviewees regarding the need for improvements in accountability, communication, and processes related to billet activation and coding. Issues such as sporadic billet activations without notification, lack of centralized manning request systems, and discrepancies in prioritization of billets exacerbate the complexity of effectively matching officers' skills with operational demands. The study underscores the significance of robust checks and balances to ensure accurate coding and utilization of officers, emphasizing the importance of a unified system for billet management. Furthermore, the analysis underscores the critical role of Officer Community Managers (OCMs) and Detailers in actively tracking billet demands and addressing subspecialty code requirements. By addressing these challenges and implementing streamlined processes, military communities can enhance mission readiness and optimize the utilization of personnel resources.

In summarizing the key findings from the analysis of subspecialty management within distinct Navy communities, it is evident that practices and challenges are as varied as the communities themselves. The METOC and FAO communities exhibit a robust mechanism for tracking and managing utilization rates, aligning closely with their technical and regional expertise demands. These communities not only continuously monitor utilization rates but also uphold a near-perfect adherence to them, reinforcing the critical nature of their niche skill sets. Conversely, the PAO community, despite its lack of systematic tracking across all educational platforms, ensures the immediate application of officers' strategic communication skills post-graduation, highlighting a direct and efficient utilization of graduate education.

The broader picture painted by the study's findings emphasizes the need for a more cohesive and adaptable management system for graduate education utilization. The insights gathered from community leaders, policy analysts, and Deputy Directors reveal a systemic issue: the Navy's current approach to tracking and leveraging officer education

is fragmented and sometimes inadequate. The diverse management practices, ranging from meticulous tracking to reliance on AQDs over subspecialty codes, underscore a disjointed methodology that could potentially hinder the effective employment of officers' advanced skill sets.

The data highlights a critical pivot from a rigid adherence to subspecialty codes to a more dynamic and holistic view of officer capabilities. Communities like the FAO prioritize linguistic expertise and regional knowledge, hence their preference for AQDs. This shift in focus from subspecialty tracking to AQDs is echoed in the Supply community's approach, which takes a 'whole officer' perspective, assessing a broader range of knowledge, skills, and abilities necessary for career progression.

The findings also suggest that the successful management of subspecialty utilization is intricately linked to timely and relevant billet coding, adequate inventory levels, and clear communication channels between OCMs and commanding entities. The METOC community's success in marrying graduate education to operational needs, for example, sets a benchmark for other communities to follow.

In conclusion, this analysis highlights the necessity for a standardized, yet flexible definitions of utilization that not only accounts for individual communities and career tracks but better embraces the diverse expertise within the Navy. By refining the process of assigning Additional Qualification Descriptors and subspecialty codes, along with enhancing the transparency and accuracy of billet coding, could serve as a catalyst for the Navy to more effectively harness the full spectrum of its officers' education and skills. Such improvements are paramount to ensuring that the Navy remains agile and fully capable in a rapidly evolving global landscape, with a workforce that is both proficient and well-utilized.

VII. CONCLUSION

Based on the historical data and interview responses regarding the management of subspecialties in Navy communities, it is evident that practices and challenges differ from community to community. The Oceanography community has the most robust procedures for tracking and managing utilization. By continuously monitoring utilization and maintaining near-perfect compliance to utilization, the community emphasizes the importance of their specialized technical proficiencies. In contrast, the Public Affairs community does not systematically track utilization; however, this community ensures that officers apply their strategic communication skills immediately after graduation to highly complex afloat and staff billets, in direct support of the Department of the Navy Chief Information Officer. The Human Resource community falls somewhere in the middle; if this community implements a two-pronged initiative that details officers to the Naval Postgraduate School and their follow-on utilization tour, the community's utilization rates will improve. This approach would lend the Human Resource officer crops the added "human capital investment" of graduate education, and would immediately place these graduates immediately in validated subspecialty billets that required the skills and abilities of a graduate education.

Broadly, this study's findings emphasize the need for a more cohesive and adaptable management system for utilizing Navy community members' graduate education. The insights gathered from community leaders, Officer Community Managers, Detailers and Executive Assistants reveal a systemic issue: the Navy's current approach to tracking and leveraging officer education is fragmented and sometimes inadequate. The inconsistent management practices, ranging from meticulous tracking to reliance on Additional Qualification Designators over subspecialty codes, reflect a disjointed methodology that could hinder the effective employment of officers' advanced skill sets.

The findings also highlight a need for the Navy to pivot from rigid adherence to subspecialty code utilization rates to a more dynamic and holistic view of officers' knowledge and skills. Communities like the Foreign Area, prioritize linguistic expertise and regional knowledge, hence their preference for Additional Qualification Designators.

This shift in focus from subspecialty tracking to Additional Qualification Designators is displayed in the Supply community's approach, which takes a "whole officer" perspective, assessing a broader range of knowledge, skills, and abilities necessary for career progression.

The findings further suggest that the Navy cannot separate successful subspecialty utilization practices from timely and relevant billet coding, adequate officer inventory levels, and clear communication channels among all stakeholders. For example, the Oceanography community's success in linking graduate education to operational needs sets a benchmark for other communities.

In conclusion, this analysis underscores the necessity for a standardized yet flexible system that tracks graduate education utilization rates and embraces the diverse expertise of the officer's skills within the Navy. A concerted effort to refine the process of assigning Additional Qualification Designators and subspecialty codes, along with improving the transparency and accuracy of billet coding, could be a catalyst for the Navy to more successfully harness the spectrum of its officers' education and skills. Such improvements are paramount to ensuring that the Navy remains agile in an evolving global landscape, and achieves a workforce that is both proficient and well-utilized.

APPENDIX A. EMAIL INVITATION

Subject: NPS Thesis Interview

Rank/ LastName,

I am currently a Manpower Systems Analysis student at the Naval Postgraduate School. I am conducting a program evaluation of the utilization rates for postgraduate education across multiple Restricted Line communities.

To that end, your insights as the [Title/ Position] would be invaluable and I am requesting a short interview. The interview would take approximately 30 to 60 minutes and can be conducted via Zoom or Microsoft Teams at your convenience. I am highly flexible in accommodating your schedule. Please let me know if you are available to support.

I will summarize the information provided without attribution to any individual. Rather, the feedback will be summarized as part of the main themes and issues discussed.

Very Respectfully,

LCDR Alexis "Lexi" Graham
Naval Postgraduate School
Manpower Systems Analysis

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APPENDIX B. INTERVIEW QUESTIONS

Interview Questions

* Additional questions may emerge throughout the interview based on response. Therefore, this list is not all inclusive.

Community Structure/Values

1. To what degree is acquiring a graduate degree considered imperative for promotion to O4, O5, or O6 within the community?
2. At what point in an officer's career trajectory does the prospect of engaging in graduate education present itself?
3. In what procedural fashion are subspecialty officers systematically monitored and administered to ensure the effective utilization of graduate education?
4. Over the next five years, does the community anticipate a requisition for additional quotas at NPS/CIVINS, or is the current inventory satisfactory?
5. Does the community encounter distinct challenges or unique opportunities that delineate its approach to postgraduate education from other Restricted Line communities?

Assignments/Billets/Processes

1. To what extent does the current billet list, spanning all officer ranks, accurately mirror the subspecialty codes deemed necessary for operational requirements?
2. After their initial post-graduate school tour, were officers placed in subspecialty-coded billets, or were such assignments deferred to later stages of their careers?
    a. If not, what factors, in adherence to personal privacy standards, accounted for the incapacity to fulfill a payback tour obligation?
3. What constitutes the competitively sought-after billets within the community that steer an officer toward promotion, and do these billets necessitate a master's degree?
4. With what frequency is the billet inventory and corresponding subspecialty requirements subject to review?
5. What key metrics and performance indicators does the community employ to gauge the impact of postgraduate education on the critical functions and billets within the community?

General Remarks

1. What were the three foremost internal impediments that influenced the community's ability to designate officers to subspecialty billets post-graduate education?
2. What were, or currently are, the three principal external impediments impinging upon the community's capacity to assign officers to graduate education subspecialty billets upon graduation?

Final Question:
What three recommendations would you offer to the Navy to enhance the utilization rate and expand opportunities for officers benefitting from fully funded education in Fiscal Year 2023 and later?

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