ACQUISITION RESEARCH PROGRAM SPONSORED REPORT SERIES

Improving the Hiring Process for Non-Stem Entry-Level Personnel Applying to the Naval Surface Warfare Center Philadelphia Division (NSWCPD)

June 2024

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DEPARTMENT OF DEFENSE MANAGEMENT
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ABSTRACT

This capstone project explores the challenges and opportunities of hiring non-STEM personnel within government agencies, focusing on the Naval Surface Warfare Center Philadelphia Division (NSWCPD). It examines barriers non-STEM candidates face when applying for positions in NSWCPD's Division 31, Code 311. Using a process analysis approach, the project identifies some potential key challenges: difficulty in understanding technical and government nomenclatures in job announcements, insufficient knowledge on navigating the hiring and interviewing process, and outdated training and onboarding programs for new hires. To address these barriers, the project proposes several solutions: clarifying technical and government terminology in job announcements, using concise visuals to increase awareness of the hiring and interviewing process to encourage a larger pool of applicants, modernizing training delivery to enhance accessibility and effectiveness for new hires, and increasing awareness of internship opportunities for non-STEM candidates. Future research should collect pre- and post-intervention data to evaluate the effectiveness of these proposed adjustments.

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ABOUT THE AUTHOR

Stephanie Lukas graduated from Indiana University of Pennsylvania in 2014 with a degree in Hospitality Management. After graduation, Stephanie started work at NDI Engineering as contractor support for the Logistics Program Manager (LPM) at the Naval Surface Warfare Center (NSWCPD) Philadelphia Division for the Littoral Combat Ship (LCS) ship classes. In November 2016, Stephanie started her work in NSWCPD's Logistic Product Support Management Branch, as an LPM supporting the LCS ship class. Today, Stephanie is the LPM for the Large Unmanned Surface Vessel (LUSV) and Ship to Shore Connector (SSC). For both roles, she has provided program management for the planning, developing, and maintaining of all Integrated Logistics Support (ILS) required throughout the program life cycle. She will continue to serve in this position after graduation

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LIST OF ACRONYMS AND ABBREVIATIONS

AWF	Acquisition Workforce
BH	Branch Heads
BLM	Business, Logistics, Management
DAU	Defense Acquisition University
DON	Department of the Navy
FY	Fiscal Year
GED	General Education Development
GS	General Schedule
HR	Human Resources
ILS	Integrated Logistics Support
ISEA	In-Service Engineering Agents
KSAs	Knowledge, Skills, and Abilities
LMS	Logistic Management Specialist
LPM	Logistic Program Managers
LPSM	Logistics Product Support Management
NADP	Naval Acquisition Development Program
NSWCPD	Naval Surface Warfare Center Philadelphia Division
NREIP	Naval Research Enterprise Internship Program
OPM	Office of Personnel Management
PII	Personal Identifiable Information
PMS	Planned Maintenance System
PO	Program Office
SEAP	Science and Engineering Apprenticeship Program
SEP	Student Employment Program
SMART	Science, Mathematics, and Research for Transformation
STEM	Science, Technology, Engineering, and Mathematics
TM	Technical Manual

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I. INTRODUCTION

Naval Surface Warfare Center Philadelphia Division (NSWCPD) supports the Department of Navy (DON) mission by "providing research, development, test and evaluation, acquisition support, engineering, systems integration, in-service engineering, and fleet support. NSWCPD supports cyber-security, comprehensive logistics, and life-cycle savings through commonality for surface and undersea vehicle machinery, ship systems, equipment, and material, as well as to execute other responsibilities" (Naval Surface Warfare Center Philadelphia Division, n.d.-b). NSWCPD hires primarily engineers or employees with a science, technology, engineering, and mathematics (STEM) background. These employees are hired because the work performed at NSWCPD is associated with the machinery systems. Machinery systems are the core function of the ship and ship systems product area of the United States Navy. However, non-STEM background employees are also hired, bringing to the logistics team different perspectives and ideas than those with STEM backgrounds.

The employees within NSWCPD with STEM backgrounds come from similar educational backgrounds and work cultures. These employees present a unique dynamic to the warfare center using a technical approach to completing a task and to problem-solving. While the public sector often embraces diverse talent pools, it can be more challenging for government employees without specific technical backgrounds to be aware of opportunities and access jobs and roles traditionally associated with logistics and engineering. This capstone project outlines some of the hiring challenges within the government sector by primarily focusing on the case of NSWCPD. Such hiring challenges include difficulty in understanding technical and government nomenclatures in job announcements, insufficient knowledge on navigating the hiring and interviewing process, and outdated training and onboarding programs for new hires. These challenges can cause NSWCPD to miss out on potential applicants at the USAJOBS announcement stage. This concern was expressed by NSWCPD's Logistic Product Support Management New Acquisition Team Lead, Code 311, in a Branch Meeting discussing vacancies within Code 311 (Baumer, 2021). Diverse skill sets between employees are valuable because NSWCPD has expansive responsibilities ranging from infrastructure development to

public services. To build and maintain such a workforce while striving to enhance innovation, efficiency, and adaptability, NSWCPD and other government organizations have been exploring different avenues to integrate entry-level hires into traditional roles requiring special knowledge.

Entry-level hires without traditional logistics and engineering backgrounds face challenges applying and proceeding through each step for new job positions. These new hires may need guidance and training to adjust to technical jargon and terminology, complete specific tasks, and integrate into a technical-based enterprise. NSWCPD understands that the recruits face some initial adversity and are taking action to make the transition into their new role seamless (Baumer, 2021). NSWCPD has created an onboarding process that helps new hires understand the organization's high-level goals and mission. This onboarding process introduces these individuals to professional development opportunities and mentorship programs. NSWCPD has tailored these programs so individuals can succeed within the government sector. This capstone project aims to contribute to the ongoing dialogue on improving hiring and onboarding within NSWCPD.

A.   STUDY QUESTIONS

This capstone applied project aims to examine how the Division 31 management team can reduce barriers during the application and hiring process for novice applicants. It aims to answer the following study questions: What steps in the government hiring process create challenges for entry-level and what are some of the potential mitigation options? The secondary question is: What other avenues can help entry-level, non-STEM candidates apply to NSWCPD, and what are the pros and cons for using them?

B.   METHODOLOGY

The methodology used in this capstone applied project is designed to provide a better understanding of how entry-level hires with non-STEM backgrounds are hired within NSWCPD. The methodology includes process analysis. The project evaluates and compares NSWCPD and other government sector application, hiring, and onboarding

training programs from the point of view of the different types of applicants: STEM and non-STEM background.

It examines the different application processes through USAJOBS to understand any barriers applicants could encounter in the application process. Also, the project evaluates different avenues, like internship programs, that applicants can apply to, which could be more lenient to candidates with non-STEM experience. Organizations construct unique and specific training programs for new hires to understand their position's expectations and how their role impacts the organization's goals and objectives. NSWCPD and other warfare centers have their training due to differences in expectations and requirements. Comparing the different government sector onboarding training programs, specific NSWCPD job training, and techniques will identify the practical processes and areas that need improvement.

C.   LIMITATIONS AND SCOPE

The scope of this capstone project spans processes used from fiscal year (FY) 2019 through FY 2024. This study focuses on the NSWCPD, specifically entry-level hires in Division 31, Integrated Logistics, Engineering, Readiness, and Training. The execution of training programs changed in FY 2020 due to the COVID-19 global pandemic. NSWCPD and other government sectors had to reevaluate how they train new employees to incorporate a hybrid work environment. The study encompasses trends in organizational culture, job skills, educational backgrounds, and the effectiveness of NSWCPD's training programs. The scope focuses on training programs and data within NSWCPD's Division 31.

Chapter I highlighted the challenges and strategies related to hiring entry-level personnel with non-STEM backgrounds within NSWCPD. It outlined the study questions, methodology, and scope of the capstone allied project, focusing on understanding barriers the non-STEM entry-level hires will face and proposing strategies to improve talent acquisition within NSWCPD. The following chapter provides a brief background, an understanding of how and where to apply for a government position, and the qualifications for a logistics or engineering position for those without prior experience.

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II. BACKGROUND

Entry-level hires lacking STEM backgrounds face disadvantages and challenges associated with positions within NSWCPD. Past work highlights the positive impacts of these entry-level hires, as they bring fresh perspectives and diverse skill sets that enhance creativity and innovative problem-solving (Egan, 2022). Along with the positives the new hires bring to NSWCPD challenges exist, requiring additional training to ensure the employees understand their roles and responsibilities. This chapter summarizes the steps in hiring new employees: qualifications, the NSWCPD hiring process, interview process, onboarding with NSWCPD, training documents that address a logistician's job description/responsibilities, NSWCPD's Division 31 expectations of their logistic program managers (LPM), and Code 311 Competency Development Plan.

A. QUALIFICATIONS

Government agencies differ in their job description criteria, but each agency must follow the same hiring and qualification guidelines provided by the U.S. Office of Personnel Management (U.S. Department of Labor, n.d.-a). The U.S. Office of Personnel Management manages an online resource called USAJOBS. This personnel management tool encompasses all job announcements for each government agency. Each job announcement includes qualifications and hiring criteria for that job. Qualifications for entry-level positions within NSWCPD include U.S. citizenship, background check, work history, educational background, job responsibilities, and skills necessary to perform the position (U.S. Department of Labor, n.d.-a.). Figures 1 and 2 illustrate an example of a job announcement and the qualifications.

Figure 1. USAJOB Announcement: Source: Naval Surface Warfare Center Philadelphia Division (2021)

Figure 2. USAJOB Announcement: Source: Naval Surface Warfare Center Philadelphia Division (2021)

Reviewing and understanding the qualifications listed on USAJOBS's website will help entry-level personnel understand the specific skill set required for that position.

When applying for a position within NSWCPD, the applicant must apply through USAJOBS and upload all the necessary documents identified in the job announcement.

B.   NSWCPD HIRING PROCESS

Once the job announcement closes on USAJOBS, the USAJOBS database collects all applicants' resumes and sends them to NSWCPD. NSWCPD compiles all the resumes and grades them against the resume assessment rubric that is customized to each unique position. The interview panel uses the rubric to look at if the candidate has any experience in the job duties and responsibilities. Some of the job duties and responsibilities could include funding execution, management of personnel, and workload balance. Grading the resumes against the rubric helps NSWCPD ensure that the candidates are eligible and meet the qualifications for the position. This portion of the hiring process is crucial for entry-level candidates because if their resumes do not show any related experience to the position, their resumes might not be graded on the higher end of the scale. Once the resumes are graded against the rubric, they are sorted into different quality categories. Candidate resumes that score higher than the threshold are sent to the hiring office within NSWCPD for further consideration.

C.   INTERVIEWING

After the hiring manager and interview panel review and score the applicants' resumes, the candidates with the highest scores can interview for the job position. The selected candidates will have 15 minutes before the interview to review questions addressed during the 30-minute interview (Cooney & Osgood, PowerPoint slides, March 14, 2023). The questions and answers are created based off the job's roles and responsibilities. The candidate can write down quick notes to help them keep their answers on track. At the beginning of the interview, the panel introduces themselves and answers any questions. A panel member starts the clock, and the candidates have 30 minutes to answer all questions in no particular order (Cooney & Osgood, PowerPoint slides, March 14, 2023). The candidate may go back to a prior question and provide additional information. When there are 5 minutes left in the interviewing process, a panel member informs the candidate so that the candidate may express their final thoughts

(Cooney & Osgood, PowerPoint slides, March 14, 2023). After completing all the interviews, the top candidate is selected and offered the position. Figure 3 illustrates the NSWCPD Interview Process.
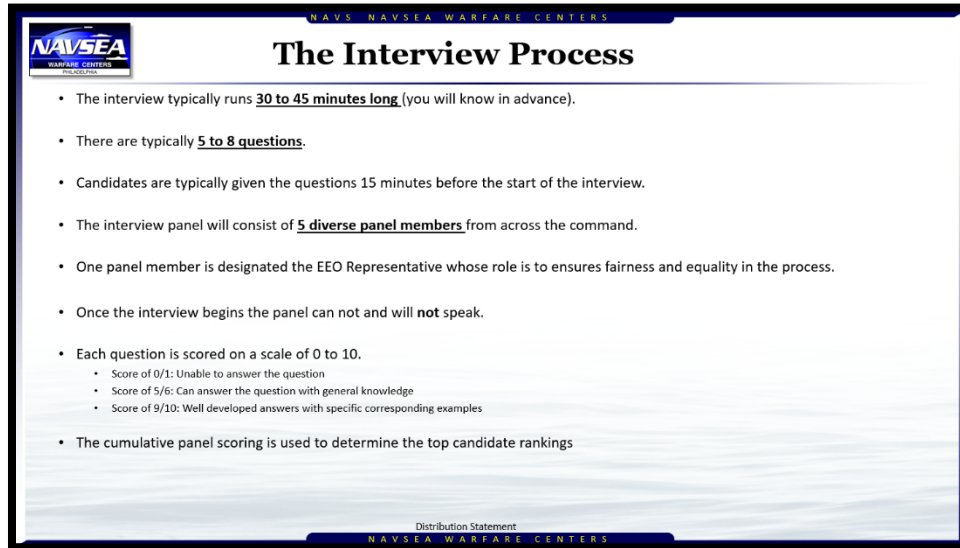
Figure 3.   The Interview Process. Source: Cooney and Osgood, PowerPoint slides (March 14, 2023).

D.   ONBOARDING AND TRAINING

NSWCPD conducts a one-week onboarding program for all new hires. The entry-level hires are familiarized with the NSWCPD's mission:

> To provide research, development, test and evaluation, acquisition support, engineering, systems integration, in-service engineering, and fleet support with cybersecurity, comprehensive logistics, and life-cycle savings through commonality for surface and undersea vehicle machinery, ship systems, equipment, and material and to execute other responsibilities as assigned by Commander, Naval Surface Warfare Center. (NSWCPD, n.d., p. 1)

Along with the command's onboarding training, new employees must also complete job-specific training assigned by Branch Heads (BH) for their job codes. Entry-level employees for Code 311 have a checklist of in-person and online training they must complete when starting their new position. Table 1 lists the apprentice-level training courses (Baumer, 2020).

Table 1. Apprentice Level Training. Source: Baumer (2020).

General Training (Required)	Vendor	Onsite/Online Location	KSA-ID Number
On-boarding	NSWCPD	NSWCPD Classroom	A1.1
Financial Planning for Engineers	NSWCPD	NSWCPD Classroom	A1.3
Funds Administration	NSWCPD	NSWCPD Classroom	A1.3
Warships: From Concepts to Grave	NSWCPD	NSWCPD Classroom	A1.1
Effective Briefing Techniques	NSWCPD	NSWCPD Classroom	A5.2
Naval Architecture for Non-Naval Architects	NSWCPD	NSWCPD Classroom	A1.1
Creative Problem Solving	NSWCPD	NSWCPD Classroom	A5.3
Contracting For Those Who Don't (Basic Contracting)	NSWCPD	NSWCPD Classroom	A1.7
Remedy Basics	NSWCPD	NSWCPD Classroom	A2.9
Introduction to Integrated Logistics Support (ILS) Products	NSWCPD	NSWCPD Classroom	A1.8
CDMD-OA basics	NSWCPD	NSWCPD Classroom	A2.2; A1.8
Technical Manuals	NSWCPD	Complete Apprentice level PQS for TMMP program	A2.5
PMS	NSWCPD	Complete Apprentice level PQS for 3M program	A2.2
Operational Sequencing System (OSS)	NSWCPD	Complete Apprentice level PQS for OSS program	A2.4
DMSMS	NSWCPD	Complete Apprentice level PQS for DMSMS program	A2.6
Specifications and Standards	NSWCPD	Complete Apprentice level PQS for Specifications and Standards program	A2.3
ILS Certifications	NSWCPD	Complete Apprentice level PQS for ILS Certification program	A2.7
Logistics Products Readiness Manager (LPRM)	NSWCPD	Complete Apprentice level PQS for Logistics Products Readiness Manager (LPRM) program	A2.8
Logistics Products Support Manager (LPSM)	NSWCPD	Complete Apprentice level PQS for Logistics Products Support Manager (LPSM) program	NS A2.1; A4.2WCPD

These trainings familiarize new employees with the roles and responsibilities of logistic management specialists (LMS). Within the first two years of working in Code 311, employees must complete the training courses at the foundational level of life cycle logistics provided by Defense Acquisition University.

Every LMS position is job-specific because the Program Offices (PO) for each ship class are structured differently and have various business practices. Entry-level

employees with non-STEM backgrounds must learn and understand the language, terminology, and acronyms common to their new position. In the beginning, the language and terminology barrier will cause challenges for entry-level hires, but with practice and memorization, the language and terminology will become secondhand. Division 31 has many resources and senior-level employees to help guide entry-level employees. The following sections highlight some of the available resources for entry-level employees.

E. OCCUPATIONAL OUTLOOK HANDBOOK

The U.S. Bureau of Labor Statistics' (2023) *Occupational Outlook Handbook* provides information about logistician positions. This handbook is publicly published to help candidates understand the qualifications to become a logistician within the federal government. The *Occupational Outlook Handbook* is a great guide for candidates to reference if they are eligible for certain logistics positions. Candidates need a bachelor's degree, but an associate degree is acceptable for specific logistician jobs, like warehousing (U.S. Bureau of Labor Statistics, 2023). Logisticians typically seek a bachelor's degree in logistics, supply chain, business, or a related field. Experience in related fields is highly encouraged but not required. The following skills are essential for a logistician: communication, critical thinking, customer service, organization, and problem-solving (U.S. Bureau of Labor Statistics, 2023). These qualities are not required but are crucial since they play an active role in every logistician position. Figure 4 illustrates some quick facts about logisticians from the *Occupational Outlook Handbook*.

Quick Facts: Logisticians	
2023 Median Pay ❓	$79,400 per year $38.17 per hour
Typical Entry-Level Education ❓	Bachelor's degree
Work Experience in a Related Occupation ❓	None
On-the-job Training ❓	None
Number of Jobs, 2022 ❓	208,700
Job Outlook, 2022-32 ❓	18% (Much faster than average)
Employment Change, 2022-32 ❓	38,300

Figure 4.   *Occupational Outlook Handbook*. Source: U.S. Bureau of Labor Statistics (2023).

Logisticians have similar responsibilities, but depending on the company, each position is unique to the overall mission. Everyday job activities for logisticians can include but are not limited to purchasing, transportation, inventory, and warehousing (U.S. Bureau of Labor Statistics, 2023). A logistician must interact with other groups or individuals to complete tasks, so strong communication and social skills will enable entry-level employees to succeed at their positions. However, the handbook outlines the basic requirements for a logistician, so strong communication and social skills will enable entry-level employees to perform at the highest quality.

F.   NSWCPD DIVISION 31 PROGRAM EXPECTATIONS

NSWCPD has its own rules, responsibilities, and expectations to which it holds its employees. NSWCPD Division 31 established *NSWCPD Division 31 Program Expectations* reviewed and signed by the Division 31 Branch Heads (Neff, 2021). The program expectations were constructed to develop consistent program execution and standardized management (Neff, 2021). These practices are for LPMs within Code 311 who interact with higher management and sponsors. The document covers three business areas: funds management, contract management, and issue/risk management.

LPMs must track and maintain financial graphs for the cost reimbursement and direct citations allocated to their programs. Cost reimbursement and direct citation burn charts must be created to display the burndown of funds. They should include the fiscal

year (FY) allocation, funding received to NSWCPD, execution plan, and actual funds executed (Neff, 2021). The LPMs are expected to assign funds to each product line and associated in-service engineering agents (ISEAs) when the LPM executes work scheduled for that FY. The LPM works with the task manager to manage the obligations and expenditures for the LPM's contracts. Monthly program reviews with Division 31 BHs allow the LPMs to present financial reports and address any issues or concerns.

There are always issues and risks associated with funded tasks within any project. The LPM manages its funds based on the ship and logistics event schedule. Tasks over budget or behind schedule must be reported on a risk dashboard. The dashboard displays impacts the program might face, such as if the LPM needs help getting the project back on schedule or within its budget. The LPM must present these dashboards to the division head and chief engineer's office (Neff, 2021). Deficiencies in logistics projects that the LPM is aware of must be reported to the Code 311 BHs and the associated logistics product BH.

G.   NSWCPD COMPETENCY DEVELOPMENT PROGRAM

The Logistics Product Support Management: NSWCPD Competency Development Plan was developed specifically for use within NSWCPD Code 311 (Baumer, 2020). The development plan is broken down into three levels of expertise: apprentice, journey, and expert. The levels of expertise are broken down into knowledge, skills, and abilities (KSAs) that the entry-level employees must demonstrate within a qualification period. Employees only need to qualify at the apprentice level one time. Journey-level employees must re-qualify for that level every two years with Code 311 BH. Expert-level employees must re-qualify for that level every two years with the division 31 head (Baumer, 2020). Table 2 lists the knowledge and skill KSAs for the apprentice level (Baumer, 2020).

Table 2.   Apprentice Level Skills and Knowledge KSAs. Source: Baumer (2020)

KSA-ID	General Knowledge
A1.1	Basic understanding of NSWCPD organization and roles.
A1.2	Basic understanding of NAVSEA Technical Authority construct.
A1.3	Basic understanding of Navy Working Capital Fund organization and how we are funded.
A1.4	Basic understanding of general shipboard systems, operations, and safety concerns.
A1.5	Basic understanding of systems engineering and risk management.
A1.6	Basic understanding of cyber security.
A1.7	Basic understanding of Government contracting actions and contracting ethics.
A1.8	Awareness of various Integrated Logistics Support (ILS) products.
A1.9	Basic understanding of how teams operate effectively.
KSA-ID	**Specific Knowledge**
A2.1	Basic understanding of cognizant In-Service Engineering Agent (ISEA) system(s) and or functional area. Knowledge of system components, interfaces, system operating principles and fundamental physics based model of system.
A2.2	Basic knowledge of U.S. Navy Maintenance Material Management program (NAVSEAINST 4790.8 Series)
A2.3	Basic knowledge of Specifications and Standards program
A2.4	Basic knowledge of OSS program
A2.5	Basic knowledge of TMMP
A2.6	Basic knowledge of DMSMS program
A2.7	Basic knowledge of ILS Certification program
A2.8	Basic knowledge of Logistics Products Readiness Manager (LPRM) program
A2.9	Remedy Familiarization
A2.10	Complete SUBSAFE training
KSA-ID	**General Skills**
A3.1	Effectively operates within NSWCPD business processes and rules for timekeeping and travel.
A3.2	Safely participate in laboratory work and/or shipboard visits (i.e., test and evaluation, assessments, hot and cold checks, and equipment installations).
A3.3	Initiate and execute small procurement actions (i.e., purchase card buys, MILSTRIP orders, $25k or less SAP buy, placing incremental funding on a delivery order contract).
A3.4	Creates project plans for small efforts, including cost estimate and schedule.
A3.5	Effectively monitors, controls and provides status for small project efforts. This includes tracking of costs, schedule and technical progress.
KSA-ID	Specific Skills
A4.1	Review and comment on ILS products such as drawings, technical manuals, EOSS and maintenance cards.
A4.2	Capable of creating/modify existing program files as needed
KSA-ID	**Abilities**
A5.1	Operate effectively as a team member.
A5.2	Effective communication (written and oral)
A5.3	Planning and organizing individual work assignments.
A5.4	Read and comprehend simple technical documentation (drawings, technical manuals, test reports, etc.)
A5.5	Read and comprehend basic risk assessments and mitigations.
A5.6	Maintain situational awareness in hazardous shipboard and industrial environments.

Apprentice level is acquired after 3 years. The entry-level hires work towards this competency level after completing NSWCPD boot camp training. Within the 3 years, the employees learn a basic understanding of NSWCPD business rules and practices, the Navy Working Capital Funds, integrated logistics support (ILS), shipboard operations and systems, and how a team operates. In addition to learning the fundamentals of NSWCPD and Division 31, employees must complete mandatory online and classroom training. The training includes Creative Problem Solving, Basic Contracting, Funds Administration, and Effective Briefing Techniques (Baumer, 2020). New hires can develop their work style based on their training and program tasking.

This chapter highlights the hiring process, comprehensive training, and competency development framework at NSWCPD, which are tailored for entry-level hires without a STEM background. The initiatives developed aim to provide entry-level hires with the necessary skills, knowledge, and abilities to succeed in their position. The next chapter will feature prior studies conducted across the federal government regarding the entry-level application process and hiring.

III.   LITERATURE REVIEW

As described in the background, there are many different requirements, responsibilities, processes, and guidance when candidates are applying to a non-STEM position within NWCPD. Regarding the challenges of non-STEM entry-level candidates applying to the NSWCPD, there has been no study conducted. Most prior work related to this capstone applied project was conducted on hiring entry-level employees throughout the federal government. The following chapter summarizes studies previously conducted on training documents addressing entry-level hires' skills and requirements, suggestions for finding positions through USAJOBS, resume characteristics, tips for landing a federal position, and hiring issues. The reports to be assessed include "Skills Requirements of Contemporary Senior and Entry-Level Logistics Managers: A Comparative Analysis" (Murphy & Poist, 2006), and "USAJobs Class Preps Federal Job Hunters" (Bissell, 2012).

A.   SKILL REQUIREMENTS OF CONTEMPORARY SENIOR AND ENTRY-LEVEL LOGISTICS MANAGERS: A COMPARATIVE ANALYSIS

Paul Murphy and Richard Poist, in their 2006 study, conducted surveys to examine the most critical skills of senior-level and entry-level logistics managers. Their study discusses data on what managerial skills are essential to logistics managers. The survey used reference data from 1960–2005 from different U.S.-based job search firms. Murphy and Poist (2006) mentioned, "the BLM framework suggests that logistics managers need to exhibit proficiency in three major areas: business, logistics, and management skills" (p. 49). Managers need to know these skills to execute their positions successfully and professionally. Over the years, different skills were added to the three areas, which impacted the results of the surveys. Senior and entry-level managers in this study agree that knowledge of supply chain management, transportation, and logistics is critical. Entry-level managers believe that personal integrity, self-motivation, and self-confidence are essential attributes to have in a manager. On the other hand, senior-level managers in this study believe that the most critical attributes are the ability to motivate others and strong decision-making skills. Personal characteristics are more prominent for

entry-level managers, while leadership skills are more prominent for senior-level managers. Senior and entry-level managers who participated in Murphy and Poist's study agree that management skills are the most important of the three BLM framework skill sets.

The Murphy and Poist (2006) study holds significance for this capstone project as it underscores the essential skills that entry-level logisticians need to effectively carry out their responsibilities. A comprehensive understanding of the diverse skill sets required for entry-level logisticians can enable NSWCPD to craft a specific and comprehensive job announcement, helping candidates understand the specific qualities needed for the position. Moreover, grasping the three distinct skill sets for entry-level logisticians can empower NSWCPD Code 311 to tailor their onboarding training programs to fortify those skill sets.

B. USAJOBS CLASS PREPS FEDERAL JOB HUNTERS

The USAJOBs application process can be challenging for entry-level candidates to navigate when seeking and applying for a federal job position. Chelsea Bissell from the U.S. Garrison Grafenwoehr Public Affairs attended a USAJOBS job hunters prep class conducted by Rhani Ellis, Employment Readiness Program Manager of the Army Community Service Employment Readiness Program (Bissell, 2012). This prep class was conducted to help job seekers understand the different steps within the USAJOBs application process and why it is important to slowly work through each step.

In 2011, the U.S. Army updated its application process through USAJOBS to use the same database the rest of the federal government agencies use. Updating the application process through USAJOBS made it more direct but also more time-consuming and thoroughly detailed. Bissell (2012) noted that the employment readiness program manager advises applicants to set aside time when starting their application process due to the new, thorough process. Through the new process, applicants can use the USAJOBs' resume builder feature. The Resume Builder helps applicants compose a descriptive resume that is more appealing to companies. The feature also prevents applicants from using unconventional resume titles or email addresses (Bissell, 2012).

Once applicants complete their resumes, the job search begins. To ensure applicants see all job opportunities, they must diligently search. Applicants can receive an email from USAJOBS that notifies them of job suggestions based on their preferences. Each job is unique, so tailoring your resume to the job announcement is very beneficial. During the class, Ellis noted that using buzzwords that are noted throughout the job announcement in their resumes will help their chances of their resumes being selected. Once applicants edit their resume and collect all the proper documentation, they hit the "Apply" button and answer specific questions. Specialized experience questions should always be answered with "yes" to prevent immediate rejection (Bissell, 2012). Once applicants hit the "Submit" button to ensure their resume is received, they receive a confirmation email. At the end of the class, Ellis noted that job seekers can make appointments with the Army Community Service Employment Readiness Program if they need future help or clarification with the new process (Bissell, 2012).

This study is relevant to this project because it identifies that if it does not know the USAJOBS application process, the applicant can jeopardize their chances of having their resume reviewed. This suggests NSWCPD may consider making an intentional effort to increase awareness of the hiring and interviewing process to increase the pool of potential applicants and to not miss any qualified applicant due to the process-related barriers. Also, this study brings important awareness of the resources used by the U.S. Army to help job seekers, such as lunch and learns trainings about the application process which could inform NSWCPD of potential courses of action.

C.   NAVIGATING USAJOBS TO LAND A FEDERAL ROLE

Navigating the complex landscape of federal employment opportunities within the U.S. government can be overwhelming for many job seekers. Available positions are abundant, and with the complex application processes involved, individuals often need help figuring out where to begin. *Navigating USAJOBS to Land a Federal Role* is a thorough guide to helping applicants secure employment within the federal government through the USAJOBS platform (Lip & Martone-Richards, 2023). This study analyzes the knowledge and strategies necessary to navigate the particulars of federal job listings, create professional applications, and successfully navigate the application process from

start to finish. Whether applicants are recent graduates looking for job opportunities or professional personnel looking for growth, this guide offers insights and tips to help navigate the path to federal employment.

USAJOBS is the official government online database where federal government positions are advertised. More than 500 agencies have job listings on the website. The Office of Personnel Management (OPM) is the leading human resources agency overseeing the advertised positions on USAJOBS (Lip & Martone-Richards, 2023). The OPM's vision statement is "Powering the Federal Government to be a model employer through innovative solutions and a dynamic, inclusive workforce" (Lip & Martone-Richards, 2023, p. 9). The OPM ensures that the federal government follows the legal obligations and personal policy proceeds when advertising positions. This step in the hiring process is important because all the job advertisements for federal positions must be treated equally.

This study highlights the importance of applying for federal job opportunities as soon as possible after they open. Once applicants find a position to apply for, the most challenging aspects are understanding the job announcement and ensuring the applicants meet all requirements. To work in a federal position, applicants must meet the following criteria: U.S. citizen, 18 years of age or older, pass a background check/security clearance, meet minimum qualifications for the position, and provide all required documentation (Lip & Martone-Richards, 2023).

Navigating USAJOBS to Land a Federal Role explains the different federal hiring paths applicants must understand before applying for a position. On USAJOBS, 12 different symbols can be attached to a job announcement. These symbols help applicants understand which positions they are eligible to apply for. The symbols correspond to categories such as open to the public, veterans, federal employees, students and recent graduates, and individuals with disabilities. Figure 5 illustrates the different symbols in USAJOBS.

Figure 5.   USAJOBS Symbols. Source: U.S. Department of Labor (n.d.-b).

Lip and Martone-Richards (2023) analyzed all the different hiring paths within the federal government and identified the three common hiring paths used: competitive service, excepted service, and senior executive service. Most federal positions follow the competitive service path, which is regulated for fairness for all applicants. Veterans are given preference in any of the competitive service job postings. According to the Office of Personnel Management,

> Veterans' preference in its present form comes from the Veterans' Preference Act of 1944, as amended, and is now codified in various provisions of title 5, United States Code. By law, veterans who are disabled or who served on active duty in the Armed Forces during certain specified periods or in military campaigns are entitled to preference over others in hiring from competitive lists of eligibles and also in retention during reductions in force. (U.S. Office of Personnel Management, n.d.-a, para. 6)

Further, Lip and Martone-Richards (2023) analyzed the General Schedule (GS) levels to identify federal government position classification and pay scales: "The classification and pay system that covers most civilian white-collar federal employees in professional, technical, administrative, and clerical positions" (U.S. Office of Personnel Management, n.d.-b, para. 1). The grade scale starts at GS-1 and goes up to GS-15, with 10 steps within each level. The GS scale is laid out by degree and years of experience. Each year, the pay scale can increase due to increases in the cost of living and any other

bills passed by Congress or the president. Entry-level federal government hires start at GS-1 and may work until they reach the highest level within their job code series. The U.S. Office of Personnel Management stated, "GS employees may advance to higher grades by promotion at certain intervals (generally after at least a year), as determined by OPM regulations and qualification standards and agency policies" (U.S. Office of Personnel Management n.d.-b, para. 5).

As candidates continue through the application process on USAJOBS, they must gather different documentation to provide in their application. Lip and Martone-Richards (2023) explain that the federal government needs to adhere to the one-page rule for resumes. The study's research identified that candidates could have as many pages as they like as long as they include the following: citizen status, work experience, education, other relevant experience, and professional references. Resumes should be clear, organized, and easy to read. Pamela Berland, career coach for federal and international affairs jobs, mentioned, "As you're writing bullets in your resume, it is important to remember three things. One is you should describe your task; two, try to quantify whatever you can; and three, what was the impact or result?" (Lip & Martone-Richards, 2023, p. 33).

Positions with GS-5 to GS-9 levels require applicants to provide official college transcripts. This is noted in the required documents section of job announcements on USAJOBS. Applicants should ensure they have their transcripts before applying because some universities can only send transcripts after a certain period. Throughout the study, Lip and Martone-Richards (2023) identified that current students may provide unofficial transcripts at the time of application and then send official ones when their studies are complete.

Lip and Martone-Richards (2023) conducted research about whether listing references is beneficial to have on an applicant's resume. The study found that references are optional unless a job announcement states that they are required. Even though having references is optional, it is always good to have reliable and professional references in case they are needed to decide on a position. Applicants need to make sure that they ask permission to list someone as their reference. This helps the person being used as a

reference understand that they might be contacted, and they can ask the applicant what job they are applying for, so they are caught on guard. Like references, LinkedIn profiles are not required by the federal government. Updated LinkedIn profiles do, however, benefit applicants because some federal agencies use LinkedIn to find potential candidates. Having connections via LinkedIn can help applicants connect to different organizations they may not have otherwise considered when looking for a position. Maintaining a professional profile and updated resume may lead to agencies reaching out for a possible job opportunity.

The research conducted by Lip and Martone-Richards (2023) provides valuable insights for this capstone project as they unfold the time and effort involved in the federal hiring process. The Office of Personnel Management introduced the End-to-End Hiring Initiative in March 2017, aiming to enhance the human resources procedures for staff recruitment. According to the study, in 2020, the average duration for hiring individuals for federal positions was approximately 100 days (Lip & Martone-Richards, 2023). While agencies strive to limit the process to about 80 days, this is not always achievable (Go Government, n.d.-d). The findings of this study help to identify a potential obstacle that applicants may encounter when seeking entry-level positions within NSWCPD.

D.   ENTRY-LEVEL LOGISTICS MANAGEMENT HIRING ISSUES

The "Entry-Level Logistics Management Hiring Issues" by Brian J. Gibson and Robert Lorin Cook study examines the challenges employers and job seekers encounter in recruiting for entry-level positions within logistics management (Gibson & Cook, 2003). The study examines skill mismatches, evolving industry trends, and recruitment strategies. By analyzing these issues, Gibson and Cook aim to provide insight and solutions to enhance the hiring process. They also investigate bridging the gap between employers seeking qualified talent and ambitious logistics professionals seeking entry-level roles.

Gibson and Cook (2003) highlight that between 2002 and 2003, a National Association of Colleges and Employers report indicated they were expected to hire 3.6% fewer new college graduates than in the prior academic year. According to the study, employers continue to grow and expand their teams through effective hiring decisions.

Employers are shifting their focus to hiring more entry-level logistics management positions. A balance of senior-level and entry-level logistics managers positively impacts the organization and its performance. Over the years, the number of senior-level logistics managers has decreased due to retirements and other job opportunities. The study mentioned, "A critical aspect of successful logistics job placement involves understanding the perspectives and priorities of the key parties—employers and their prospective employees" (Gibson & Cook, 2003, p. 121). The study provides insight into job placement for entry-level logistics managers and their employers.

According to Gibson and Cook (2003), entry-level hires research an organization's salary, benefits, and workload expectations before deciding if they will apply for the position. When determining whether to apply for a position, salary is the most significant factor for applicants. The study highlights that 9.1% of applicants declined job offers in logistics management due to low starting salaries (Gibson & Cook, 2003). Applicants compare salary offers to what they can afford in the current economic conditions. This results in positions staying vacant until an applicant who is not looking for a particular salary applies for the position.

When an entry-level applicant accepts a logistics management position in the federal workforce, the hiring process consists of the resume and the interview. In the study, employers were asked what the critical resume content is, and they responded that communication skills are crucial. Figure 6 illustrates the relative importance of candidates' other resume items.

Table 4
Relative Importance of Candidate Resume Items*

Resume Items	Employer Importance Rating			Student Prediction of Employer Importance Rating			Rated Significantly More Important By
	Rank	Mean	S.D.	Rank	Mean	S.D.	
Communication skills	1	6.49	0.65	1	6.36	0.78	
Leadership experience	2	5.56	1.01	2	5.95	0.93	Students (.01 level)*
General work experience	3	5.34	1.01	5	5.74	1.06	Students (.01 level)*
Computer / technical skills	4	5.27	0.98	7	5.58	0.93	Students (.01 level)*
Quantitative skills	5	5.15	0.75	8	5.36	0.98	Students (.05 level)**
Industry work experience	6	5.12	1.33	6	5.65	1.08	Students (.01 level)**
Education – degree and major	7	5.06	1.09	3	5.93	1.00	Students (.01 level)*
Internship / co-op experience	8	5.01	1.35	4	5.86	1.15	Students (.01 level)**
Classroom performance (GPA)	9	4.85	0.98	12	4.89	1.18	
Customer service experience	10	4.85	1.31	10	5.13	1.14	Students (.05 level)*
Extracurricular activities	11	4.31	1.41	14	4.76	1.32	Students (.01 level)*
Professional organization activity	12	4.27	1.17	11	4.98	1.14	Students (.01 level)*
Date of availability	13	4.24	1.21	16	4.70	1.25	Students (.01 level)*
Individual's stated objective	14	4.22	1.45	15	4.71	1.23	Students (.01 level)**
Supervisory experience	15	4.12	1.60	13	4.84	1.24	Students (.01 level)**
Education – university attended	16	3.96	1.38	9	5.16	1.23	Students (.01 level)*
Reference list	17	3.68	1.34	17	4.41	1.35	Students (.01 level)*

* Seven-point scale: 1 = low importance, 7 = high importance
* Based on independent samples T-test results
** Based on non-parametric Mann-Whitney test results

Figure 6.   Relative Importance of Candidate Resume Items. Source: Gibson and Cook (2003).

According to the study, students and entry-level hires should focus on constructing their resume to illustrate their prior job responsibilities and providing basic facts (Gibson & Cook, 2003). Employees look at the whole picture of someone's resume rather than the bare facts like reference lists and institutions attended. The second part of hiring a logistics manager is the interview process. Gibson and Cook's study highlights that employees investigate how applicants communicate and apply interpersonal skills in the interview. The survey outcome is that "the student respondents were better attuned to the importance of interview-related consideration than the importance of resume review issues" (Gibson & Cook, 2003, p. 127).

In conclusion, the study sheds light on the multifaceted challenges facing employers and job seekers in the recruitment process within the logistics management sector. Highlighting the issues of skill mismatches and evolving industry dynamics, this study offers valuable insights for stakeholders aiming to improve the efficiency and effectiveness of entry-level hiring practices. The logistics industry continues to grow, and

addressing these challenges will be crucial for fostering a more streamlined hiring process. Through collaborative efforts and innovative strategies, the study is helping employers and employees work toward a more sustainable future for the logistics management workforce.

E.   SUMMARY

The current chapter of this capstone applied project delves into an analysis of various reports and training materials related to the skills and requirements of entry-level hires. It also explores strategies for securing positions through USAJOBS, essential elements of crafting effective resumes, advice for attaining federal positions, and the challenges associated with the hiring process. Additionally, it offers an in-depth exploration of the intricacies involved in securing federal positions, navigating job platforms like USAJOBS, creating impactful resumes, and addressing hiring challenges across diverse industries and demographics. This capstone applied project distinguishes itself from previous work by its specific focus on the application, hiring, and onboarding process for NSWCPD within Division 31, code 311. Prior research contributes to addressing the research question of this capstone by highlighting the lack of knowledge in navigating the application, hiring, and interviewing process across various government and private industries. It has been discovered that the different stages of the hiring process are not widely understood, emphasizing the need for examination to assist candidates in understanding how to apply effectively.

IV. ANALYSIS OF POTENTIAL BARRIERS TO HIRING NON-STEM ENTRY LEVEL PERSONNEL

The hiring processes at NSWCPD and other warfare centers are pivotal in securing top-tier talent capable of meeting the intricate demands of defense programs. This analysis delves into the multifaceted nature of these processes, focusing on critical aspects such as resume construction during the application process, government hiring processes with diversity initiatives, onboarding training programs, and alternative hiring methods. NSWCPD's hiring procedures are rigorous, emphasizing technical proficiency, adaptability, teamwork, and ethical decision-making. Notably, candidates' resumes play a crucial role, with some failing to progress due to a lack of impactful action words. Constructing compelling resumes that effectively showcase qualifications and achievements is paramount to navigating this initial screening phase successfully.

As discussed in the previous chapters, there are different process steps that the government hires need to complete before they can accept a position. Some ways for applicants to understand the process and gain additional knowledge is to talk to employees who have been through the same process or to attend seminars that prepare interested candidates for the application and interview. Actively researching the hiring process and holding conversations with employees will put you ahead of the other applicants who must prepare beforehand. This chapter analyzes the demographics, backgrounds, and skills within NSWCPD Code 311, the code comprises diverse individuals. The analysis examines the construction of USAJOBs job announcements, hiring process flow for candidates, division 31 training, other hiring avenues, and the Division 31 diversity. These different process areas identify and emphasize the challenges entry-level candidates with non-STEM backgrounds face when trying to secure a job within NSWCPD.

A. USAJOB ANNOUNCEMENTS

Job announcements for any federal position are created and posted on USAJOBS. After analyzing various job announcements for logistics management specialists at NSWCPD, the announcements make it clear that none of the announcements clearly call

out if they are looking for non-STEM background candidates or STEM candidates. The summary of the job announcement states, "You will serve as a Logistics Management Specialist in the Logistics Product Support Management Branch (Code 311), Life Cycle Logistics, Engineering & Readiness Division (Code 31), Machinery, Research, Logistics & Ship Integrity Department (30), of the Naval Surface Warfare Center Philadelphia Division in Philadelphia, PA. (NSWC PHILA DIV.) (Naval Surface Warfare Center Philadelphia Division, 2021).

Comparing all the qualification sections, each announcement states, "Your resume must demonstrate at least one year of specialized experience at or equivalent to the previous grade level or pay band in the Federal service or equivalent experience in the private or public sector providing technical expertise resolving issues regarding Integrated logistical support (ILS) for multiple types of operations or programs (i.e., HM&E systems and equipment)" (Naval Surface Warfare Center Philadelphia Division, 2021). The qualification section continues by identifying what is considered proper experience. "Experience refers to paid and unpaid experience, including volunteer work done through National Service programs (e.g., professional, philanthropic, religious, spiritual, community, student, social). Volunteer work helps build critical competencies, knowledge, and skills and can provide valuable training and experience that translates directly to paid employment" (Naval Surface Warfare Center Philadelphia Division, 2021). The year of ILS experience is vague and does not say if the experience must come from a STEM background. Organizations worldwide use integrated logistics, and not all of them focus on STEM projects. In addition to the qualifications, it is noted that out of the six different job announcements that were studied, none of them had an education requirement.

The job announcements identify how the applications will be evaluated. Comparing all the job announcements studied for code 311 positions, none of the positions identify whether they are evaluated based on STEM experience. The announcements note that applicants will be evaluated based on their experience, skills, knowledge, and abilities. The announcements need to be written clearly to let the applicant know if the job requires STEM or non-STEM experience. Since the experience

section of the announcement does not state that the applicant's experience should be STEM-based, these positions are open to anyone with logistics experience.

After comparing different Logistics Management Specialist positions within NSWCPD and other branches of the military, it has been identified that most job announcements are vague and open to interpretation by each applicant. Any interpretation of a job announcement can prevent non-STEM applicants from applying. Previous studies helped identify that organizations are looking for particular qualities in a job position but the job announcements for those positions are vague. Improving the job announcement with clear and consistent information will help candidates understand the position better.

B.   GOVERNMENT HIRING PROCESS

After examining the government hiring process, the process can be challenging if individuals are not educated about each step and its associated characteristics. The hiring process consists of six steps, starting from when the job is approved by the hiring board to new hire onboarding. Figure 7 highlights the six steps in the hiring process. Within these six steps, there are barriers that create challenges for non-STEM applicants.

The first challenge non-STEM applicants can face is not understanding the job announcement. Job announcements need to be detailed and clear because they can cause misinterpretation. When human resources and the hiring manager create the qualifications and education section of an announcement, they need to identify whether a STEM background or degree is required. Not specifying clear and proper requirements may prevent non-STEM candidates from applying for a particular position. Also, if the hiring manager is looking for someone with a STEM background, the non-STEM applicants may not pass the application process because their experience does not match the job position's responsibilities and duties. As previously mentioned, the job announcements within NSWCPD for Logistic Management Specialists are vague when deciphering if you need a STEM background or not.
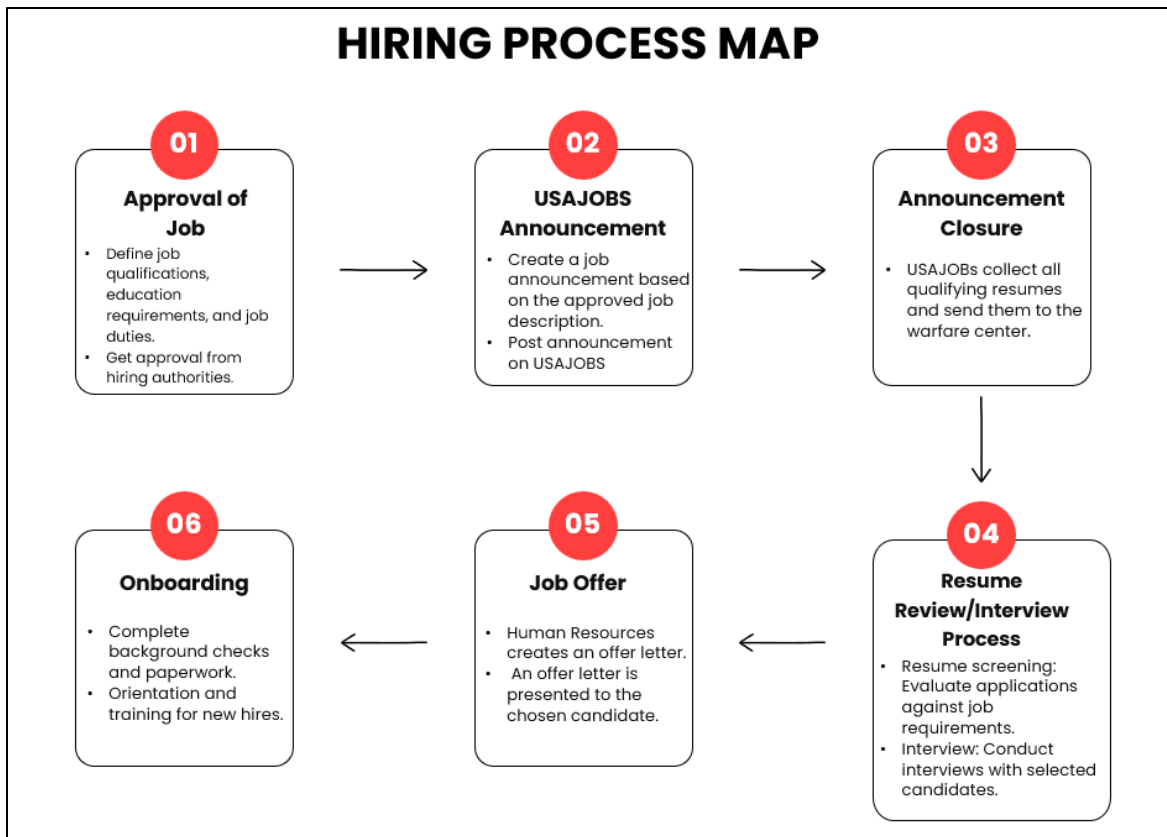
Figure 7. Hiring Process Map

The second challenge is delays in reviewing and approving schedules. Each job opening has a deadline of when the offer letter must be presented to the chosen candidate. Dragging out the process can be misleading to the applicants because they cannot track the status of their applications. The lack of communication between these steps can cause candidates to believe they are not qualified for the job. Delays in USAJOBS screening the resumes and sending them over to human resources and the hiring manager can cause applicants to accept other positions during that period. When hiring personnel for positions, you do not want to drag out the process. NSWCPD's human resources should focus on looking at the process in place and eliminating barriers to streamline the hiring process.

The third challenge is not understanding the interview process is conducted and how to answer the questions properly. The government interviewing process is unique because the interviewee is answering the questions without having any verbal interaction with the panel. The panel is designed to listen, absorb, and take notes on the answers for

each question. This process can be a challenge for some because they might not be familiar with this interview structure, or they did not have knowledge about how the government agencies interview. Not understanding the process can impact how well a candidate performs during their interview. Also, the interview questions are designed for the candidate to demonstrate their understanding of the job's roles and responsibilities, along with personal experience examples to prove the candidate is qualified for the position. Candidates must provide thorough and detailed answers to the questions being asked. If the candidates do not understand the job's responsibilities, they might not answer the questions to their fullest potential which will result in lower scores for those questions.

When looking at the study by Lip and Martone-Richards (2023) and the present government hiring procedure, it's clear that many applicants face a barrier in terms of lacking knowledge about the government recruitment process. Job seekers often don't grasp the entire procedure, including why certain stages might be more time-consuming than others. A complete comprehension of the process could boost applicants' confidence during their job application and also remove any obstacles or difficulties that are within their control.

C.   DIVISION 31 TRAINING

Division 31 has set up a weekly Lunch and Learn series to educate their employees on the different logistic product areas and any other topics employees have questions about and are interested in learning about. Lunch and Learn presentations were created based on questions and concerns from employees not understanding certain topics and processes within NSWCPD. In March 2023, the branch heads from Code 314 Technical Manual and Code 316 Planned Maintenance System (PMS) conducted a Lunch and Learn about the resume and interview process with tips for succession (Cooney & Osgood, PowerPoint slides, March 14, 2023). Listening to coworkers within code 311 discuss their thoughts on the Lunch and Learn topic made it clear that this topic was beneficial. Many noted that they did not pass the application process the first time they applied, and they never received any feedback. Some coworkers mentioned that they passed the application process but did not receive an interview.

At the beginning of the presentation, they provided a high-level overview of the hiring process from start to finish. The different stages of the process were laid out so everyone had full transparency about why the process took an extended period to complete. The branch head from Code 316 went into how to conduct a proper resume for the federal government. He mentioned a book called *Federal Resume Guidebook* by Kathryn Troutman that explains the federal resume format and how federal resumes differ from those of the private sector (Cooney & Osgood, PowerPoint slides, March 14, 2023). The branch head continued to discuss how writing a coherent resume that describes the job is important so that if someone with little to no knowledge of the job is reviewing the resume, they can understand your background and past job performance. Constructing a resume will help the reviewer understand that the applicant knows what the job entails and can provide accomplishments from a similar position. Highlighting special projects, experiences, training, and learning opportunities will make a prospective employee stand out from other applicants. Figure 8 shows a snapshot of the powerful action verbs that are suggested to be used for applicants' resumes. These words will attract the reviewers' attention and are considered "buzzwords" for USAJOBs. Employees were encouraged to seek a resume mentor if they had questions about constructing or improving their current resume.

Figure 8.   NSWCPD DIV Powerful Action Verbs. Source: Cooney and Osgood, PowerPoint slides (March 14, 2023).

The Code 314 branch head continued the brief by identifying the common resume submission pitfalls. These pitfalls were identified by talking to different employees about why their application was not accepted, along with findings from USAJOBs. The first pitfall noted is that most candidates must remember to attach the last two to three SF-50s to their application. Forgetting to submit SF-50s with an applicant's application will automatically result in the application being rejected. SF-50s are used to verify your employment and pay status. The Code 314 branch head encouraged all employees to keep a folder with their SF-50s because employees never know when the system will be down, and applicants cannot download them on the spot.

Another pitfall that automatically disqualifies an application is evaluating experience levels. On the USAJOBS application, applicants are asked questions about their knowledge of the job topic and rate themselves lower than they should. When evaluating the questions, applicants should rate themselves to the expertise level that matches the experience illustrated on their resume. Finally, not having a resume with content to back up the applicant's expert level will impact their application's chances of being chosen. Applicants can only rate themselves as experts in a particular area if they have job descriptions that back up the rating. For example, candidates cannot check if they are experts in financial management if they do not illustrate how they track

financials via burn charts, direct cite databases, or TPSs. The presentation wrapped up by providing the audience with simple interview pointers if they were chosen.

STEM or non-STEM entry-level employees applying for positions within NSWCPD do not have insight into all the different elements and steps involved in applying for a federal government position. Educating current employees on this topic can benefit entry-level candidates by sharing our knowledge and lessons learned with them. Sharing knowledge and experience can help others improve their resume and application, which would lead to hiring more non-STEM employees.

D.   OTHER HIRING METHODS

USAJOBS is the most common hiring method known within the federal government and NSWCPD. There are several different internships and student hiring programs that are also methods of hiring within NSWCPD. NSWCPD participates in the following student programs: The Naval Research Enterprise Internship Program (NREIP), the Science and Engineering Apprenticeship Program (SEAP), the Science, Mathematics, and Research for Transformation (SMART) Program, and the Student Employment Program (SEP). These student programs focus on students studying a major in the Science, Technology, Engineering, and Mathematics (STEM) field. These programs are for students enrolled in a university; anyone who has completed their bachelor's degree cannot apply for these programs. The programs help STEM students gain experience within their field of study and hopefully transition into full-time positions once they graduate.

One program within NSWCPD that should be thought of and advertised better is The Naval Acquisition Development Program (NADP). NADP is an Acquisition Workforce program that helps individuals with bachelor's degrees obtain positions within the federal government. As the report noted, "NADP is a premier developmental and leadership program designed to enhance the professional knowledge and capabilities of personnel recruited into the Acquisition Workforce (AWF) for the Department of the Navy (DON)" (NAVSEA 2022). This program puts employees in a trying environment with opportunities to support the DON. Individuals can be placed in business,

contracting, engineering and technical management, life cycle logistics, program management, and test and evaluation.

NADP interns hired for code 311 focus on the life cycle logistics of a Navy ship class. Typically, NADP interns would start as a General Schedule level 7 (GS-7) and work up to a GS-11, possibly a GS-12. Applicants with a degree in one of the focus areas or experience are eligible to start the program as a GS-9. When applying for the NADP program, the requirements and qualifications include being a U.S. citizen, being registered with the Selective Service, obtaining, and maintaining a secret security clearance, signing a mobility agreement, and minimally having a bachelor's degree with a 3.0 or higher-grade point average (GPA). NSWCPD Division 31 hires NADP interns with non-STEM backgrounds because these personnel bring a different diversity to the workforce and various characteristics to the command. The interns bring a new approach to completing tasks at hand and provide additional job tactics.

The NADP internship program is not highly advertised throughout the command, so most employees do not know about it. Without the background or knowledge about the NADP internship program, employees cannot educate and inform other candidates about the experience and hiring opportunities within NSWCPD. Leveraging the NADP program will help create a better, more agile culture and work ethic within Division 31, particularly with code 311.

E.   DIVISION 31 DIVERSITY

In prior years, information about who was being hired was not tracked other than within Human Resources and the individual divisions. NSWCPD has created a New Hire Dashboard that computes the number of employees employed within that fiscal year and their background information (New Hire Dashboard, n.d.). This dashboard displays only aggregate information, not individual level data. No Personal Identifiable Information (PII) is included. The dashboard provides a snapshot to show higher diversity throughout the command. The New Hire Dashboard highlights three diversity areas: length of service, age, and education. Figure 9 displays the ages of the new hires between FY19 and FY24 for Division 31. Between FY19 and the beginning of FY24, NSWCPD hired 49 new employees within the LMS series code. Figure 10 displays the length of service

of each hire. Forty-nine employees were hired with different backgrounds throughout the four fiscal years. Nineteen out of the 49 employees have a year or less experience in the logistics field: 16 employees have between two and four years of experience, nine new hires have between five and nine years of logistics experience. Five new hires have 10 or more years of logistics experience. The 19 hires with a year or less experience have non-STEM backgrounds. New hires who have more than two years of experience gained their experience from prior government positions, prior private sector positions, or internships. NSWCPD has partnered with Drexel University to hire recent graduates once they finish an internship with NSWCPD. Analyzing these two charts, the average years of experience between all the new hires is 3.3 years. The 19 hires who have a year or less experience are the employees that benefit from proper training programs.
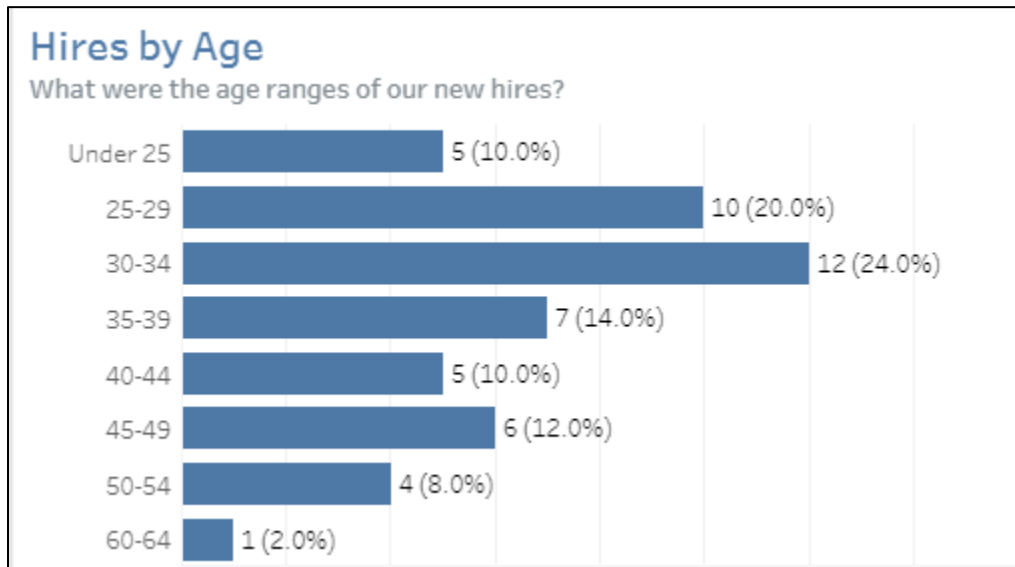

Figure 9.   NSWCPD DIV 31 Hires by Age. Source: New Hire Dashboard (n.d.).
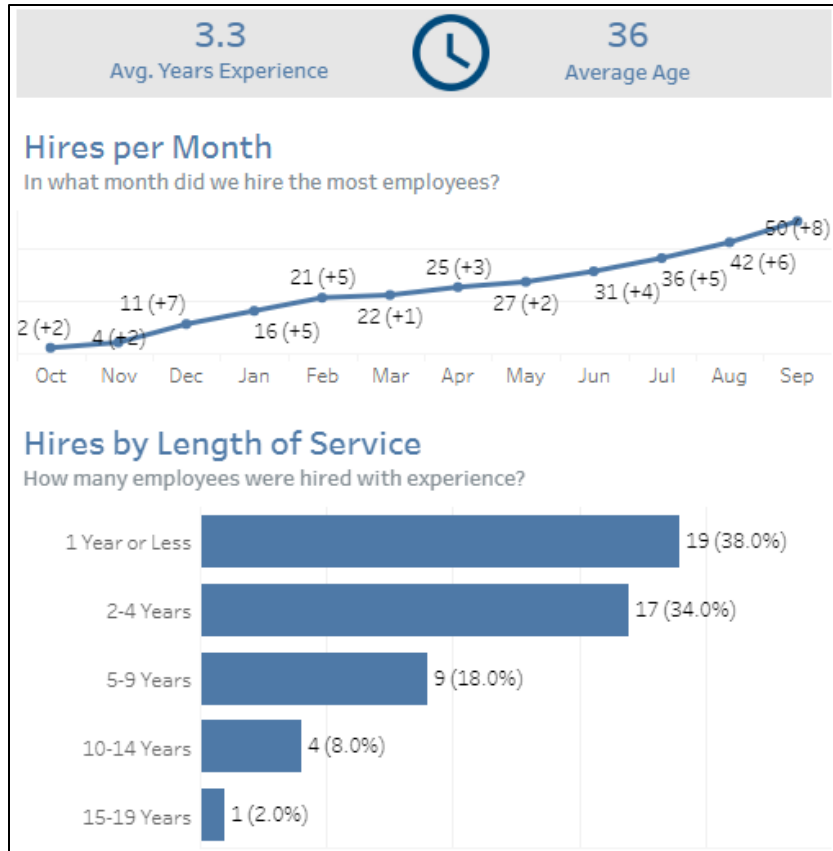
Figure 10.   NSWCPD DIV 31 Hires by Length of Service. Source: New Hire Dashboard (n.d.).

Figure 11 illustrates the hires by education location and their educational degrees. Different levels of education will be required for each of the job positions depending on the series level of the position that an applicant is applying for. Almost every position within NSWCPD requires a high school diploma or a General Education Development (GED) diploma. FY20 had the highest number of new hires with just a high school diploma, at five. Most of these hires came on board during the COVID-19 outbreak and had to be taught the requirements of an LMS. 18 of the new hires had a bachelor's degree in different majors. Within Code 311, employees graduated with degree backgrounds in criminal justice, hospitality management, business, education, and history. Having a diverse group of individuals helps the code work together, learn different skills, and develop better management techniques.
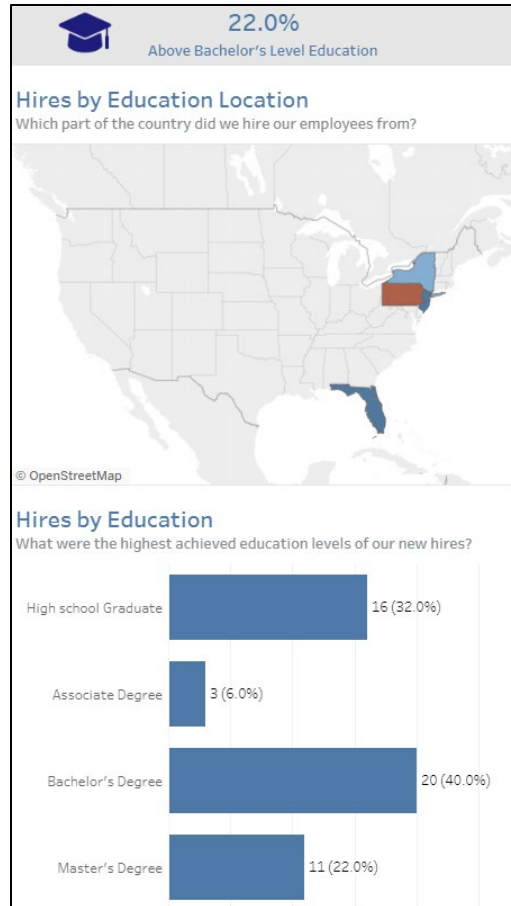
Figure 11.   NSWCPD DIV 31 Hires by Education. Source: New Hire Dashboard (n.d.).

Analyzing the dashboards, they show that over the last four years, 19 out of the 50 new hires were entry-level. All 19 entry-level hires have a year or less of experience in logistics or engineering. One year or less experience categories these employees as either recent university graduates or changing career paths. These hires were brought on through various hiring methods: USAJOBs announcements, internship programs, and Drexel University co-ops. Out of these 19 new hires, four of them have non-STEM backgrounds. These four individuals were hired through the Naval Acquisition Development Program (NADP). The four non-STEM hires are currently experiencing challenges in learning and fulfilling their job expectations. The new hire dashboard does not identify how many STEM versus non-STEM background candidates apply. If the dashboard captured this data, it would show the diversity in education backgrounds

throughout the command. The data only accounts for those who have signed an agreement with NSWCPD.

This chapter examined the application and interview process within NSWCPD, NSWCPD Division 31 diversity, the resources available for non-STEM candidate positions, and additional programs that can help secure a position within code 311. The aim was to identify some potential barriers and challenges non-STEM applicants may face when applying for a position within NSWCPD. The next chapter summarizes the analysis and provides recommendations for NSWCPD.

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V. CONCLUSION

A. SUMMARY

This capstone applied project aimed to highlight potential challenges and opportunities associated with hiring non-STEM personnel within government agencies, focusing on the NSWCPD. The objective of this capstone was to identify potential barriers that non-STEM background candidates face during the application, hiring, and onboarding processes for job positions within NSWCPD, Department 30, Division, 31, Code 311. To support its mission, NSWCPD hires primarily STEM background employees. However, non-STEM background employees are also hired to the logistics team, bringing a diverse set of perspectives and ideas to the team.

Using a process analysis approach based on literature review, applications and hiring processed related to USAJOBS and NSWCPD, this capstone proposes that some of the challenges in hiring non-STEM background employees to NSWCPD may include understanding technical language and government job nomenclatures, outdated training programs that do not include hybrid training and limited knowledge about the government hiring process and no knowledge of other hiring programs like internships.

Entry-level employees with non-STEM experience must overcome various obstacles when applying for a position within NSWCPD. The primary study question of this capstone applied project was: What steps in the government hiring process create challenges for entry-level non-STEM candidates to be hired within, and what are some of the potential mitigation options? One of the first potential challenges is that entry-level employees are not fully aware of the tools and strategies for navigating USAJOBS, especially for those employees who have never applied for a position through USAJOBS. One area in the process that I proposed to be considered and evaluated is having an app that can walk an applicant step by step through the government hiring process, along with helping them understand the various job nomenclatures (Astafan et al., 2023).

The secondary study question is: What other avenues can help entry-level, non-STEM candidates apply to NSWCPD, and what are the pros and cons for using them? The Naval Acquisition Development Program (NADP) is one potential that entry-level

non-STEM candidates can leverage to obtain a job position within NSWCPD. NADP does not require a STEM background or degree. This internship program is beneficial for non-STEM candidates because the only qualification regarding education is the applicant must obtain a bachelor's degree and hold a 3.0 grade point average (NAVSEA 2022). Applying to this internship program will help candidates obtain experience within the integrated logistics, engineering, readiness, and training divisions.

NSWCPD's comprehensive approach to talent acquisition encompasses strategic resume construction, robust diversity initiatives, continuous training, and exploration of alternative hiring methods. By addressing common potential pitfalls and embracing diverse recruitment strategies, the center strengthens its workforce with individuals capable of driving innovation and excellence in defense programs. With the awareness of potential issues in hiring and onboarding, Division 31 can identify low-cost actionable solutions that include updating new hire training documents, composing clearer job announcements, and increasing awareness of internship hiring opportunities. These steps can educate non-STEM candidates on how to successfully get hired within NSWCPD. This capstone effort underscores the critical role of tailored recruitment practices in fostering a dynamic and skilled workforce essential for effectively meeting defense challenges.

B.   RECOMMENDATIONS

The first recommendation is to engage with the Code 311 Branch Head about how Division 31 could increase awareness about the internship programs to attract a diverse workforce, including non-STEM background individuals. Over the last six years, hiring entry-level employees through the NADP program has been the primary hiring method. This internship program may benefit the hiring and onboarding of the non-STEM background employees because they get to rotate through all the logistic product codes and learn how all the codes work together to support a shipbuilding program. Division 31 branch could consider increasing education about the NADP program to their staff to enable them to share insights with others who they think would be great additions to the team.

The second recommendation regards potential action to improve the current training within Division 31 for the new employees. Reviewing and revising the current training plan might help new employees understand how to conduct their jobs more effectively. The current training plan is outdated mainly due to the implementation of hybrid working environments. After completing the command's new hire boot camp, these employees will have to learn their jobs primarily virtually due to coworkers not physically being in the office five days a week. New hires may miss out on the knowledge and conversations with experienced personnel due to the hybrid work environment. Attending virtual meetings and training is convenient, but this comes with the trades of slimmer opportunity to engage and build effective work collaboration via in-person training. These two recommendations may impact the effectiveness of hiring and onboarding of the employees for the NSWCPD Division 31.

The final recommendation is to conduct in-depth evaluations of the identifies potential barriers and suggested solutions to improving hiring and onboarding non-STEM candidates in/with Division 31. Potential barriers could include the job announcement description, the qualification intensity level, or the interview process. There also might be a variety of other factors that could impact the ability of non-STEM candidates to accept positions. Further research would help NSWCPD and Division 31 better understand these barriers and the most effective ways to address them so they can improve hiring and onboarding process.

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