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THESIS

IMPACT OF THE ACQUISITION CORPS MEMBERSHIP REQUIREMENT "24 BUSINESS-CREDIT HOURS" ON THE NAVY ACQUISITION WORKFORCE

by

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This research paper determines whether there is a negative impact on the Acquisition Workforce regarding the 24 business-credit hour requirement for membership into the Acquisition Corps (AC). This paper discusses the Defense Acquisition Workforce history in regard to key legislation and why the 24 business-credit hour requirement was enacted. The research analyzes Acquisition Workforce survey data from DAWIA level II and III program managers (PM) assigned to NAVAIR and NAVSEA and previous fiscal year AC board results to determine whether there is an impact to the workforce because of this requirement. Survey and AC board data shows that among the four primary AC membership requirements, the 24 business-credit hour requirement contributes to the highest number of AC non-selection. Survey data collected from PMs at NAVAIR and NAVSEA showed no effect on officer promotion due to any requirement for AC membership. Further analysis of DAWIA certification regarding formal business education for each acquisition career field and the 24 business-credit hour requirement for AC membership did present a disconnect. The majority of acquisition career fields do not require business education as a DAWIA certification core standard, but they require 24 business credits for AC membership. This is causing an impact, specifically on the engineering duty officer (EDO) community for AC selection. The results and conclusion of this research provide a concise and achievable remedy to minimize the impact of this requirement by tailoring the formal business credit requirement to each career field and/or identifying the business education requirement earlier in the officer's DAWIA certification process.

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LIST OF ACRONYMS AND ABBREVIATIONS

AC	Acquisition Corps
ACAT	Acquisition Category
ACE	Acquisition Career Enhancement
AEDO	Aviation Engineering Duty Officer
AET&CD	Acquisition, Education, Training, and Career Management
AMDO	Aviation Maintenance Duty Officer
APC	Acquisition Professional Community
ASN(RDA)	Assistant Secretary of the Navy for Research, Development, and Acquisition
AUD	Auditing
AWF	Acquisition Workforce
BFM	Business Financial Manager
BUS-CE	Business – Cost Estimating
BUS-FM	Business – Financial Manager
CAE	Component Acquisition Executive
CAP	Critical Acquisition Position
CEC	Civil Engineer Corps
CIO	Chief Information Officer
CLEP	College Level Examination Program
CON	Contracting
COO	Chief Operating Officer
DACM	Directors of Acquisition Career Management
DANTES	Defense Activity for Non-Traditional Education Support
DAU	Defense Acquisition University
DAWIA	Defense Acquisition Workforce Improvement Act
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DISA	Defense Information Systems Agency
DLA	Defense Logistics Agency
DMR	Defense Management Report

DOD	Department of Defense
DPIA	Defense Procurement Improvement Act
DPM	Deputy Program Manager
DRPM	Direct Reporting Program Manager
DSMC	Defense System Management College
DTRA	Defense Threat Response Agency
EDO	Engineering Duty Officer
ENG	Engineering
FE	Facilities Engineer
FY	Fiscal Year
HQ	Headquarters
HR	Human Resources
IOC	Initial Operational Capability
IND	Industrial and/or Contract Property Manager
IT	Information Technology
KLP	Key Leadership Position
LCL	Life Cycle Logistics
LDO	Limited Duty Officer
MDAP	Major Defense Acquisition Program
NAVAIR	U.S. Navy Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
NFO	Naval Flight Officer
NGA	National Geospatial-Intelligence Agency
NPS	Naval Postgraduate School
OJT	On-the-Job Training
OSD	Office of the Secretary of Defense
PCD	Position Category Description
PEO	Program Executive Officer
PLS	Product Line Specialist
PM	Program Manager
PQM	Production, Quality, and Manufacturing
PSM	Product Support Manager

PUR	Purchasing
QA	Quality Assurance
ROTC	Reserve Officers' Training Corps
S&T	Science and Technology
S&TM	Science and Technology Manager
SDO	Special Duty Officer
SME	Subject Matter Expert
STEM	Science, Technology, Engineering, and Mathematics
SWO	Surface Warfare Officer
T&E	Test and Evaluation
URL	Unrestricted Line
USD	Under Secretary of Defense
USD(A)	Under Secretary of Defense for Acquisitions
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics

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I.   INTRODUCTION

A.   BACKGROUND

The importance of developing a professional Acquisition Workforce within the Department of Defense (DOD) and the U.S. Navy is vital to ensuring that the most efficient and effective practices are used and that the right people are assigned to the right positions to ensure success. The DOD has established criteria and standards for the acquisition communities that are structured across 14 career fields (auditing, business estimating, business financial management, contracting, engineering, facilities engineering, industrial property management, information technology, life cycle logistics, program management, production, quality and manufacturing, purchasing, science and technology, and test and evaluation). Each of these acquisition career fields is assigned three Defense Acquisition Workforce Improvement Act (DAWIA) certification levels (DAWIA Level I, II, and III) that reflect the experience, education, and training required to achieve each particular level of certification. Each DAWIA certification level, within each of the various career fields, is comprised of two separate standards. There are Core Standards, which are mandatory requirements to be awarded that particular certification level, and Core Plus, which are recommended. Once an acquisition officer achieves these requirements, his or her respective service Acquisition Workforce manager awards them the appropriate DAWIA certification level.

In addition to the DAWIA certifications, every acquisition officer must become a member of the Acquisition Corps (AC) prior to being promoted to the grade of O-5. The AC membership requirements consist of formal education, DAWIA certification level, rank, and experience level, as detailed in Table 1. The purpose of the AC membership is to ensure that there is a pool of highly qualified Acquisition Workforce (AWF) personnel available to fill critical acquisition positions (CAPs) and key leadership positions (KLPs, Assistant Secretary of the Navy for Research, Development, and Acquisition [ASN(RDA)], 2011). KLPs and CAPs are the most senior acquisition positions within the Navy and Marine Corps and make up a fraction of the entire AWF community, as shown in the AWF pyramid in Figure 1.
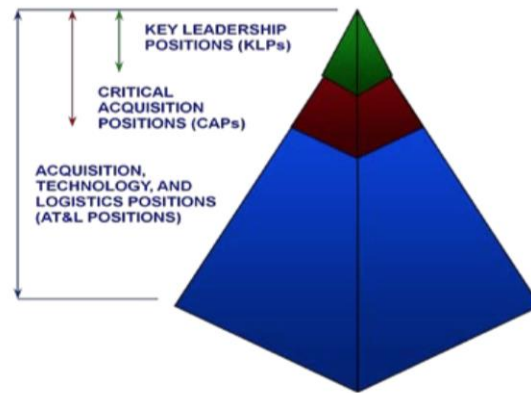
Figure 1.   Acquisition Workforce Pyramid. Source: ASN(RDA) (2011).

B.   PROBLEM

A concern of the Navy Acquisition Workforce Manager is that AWF personnel serving in acquisition career fields that are technical in nature with no business-related formal education requirements throughout their respective DAWIA certification processes are at a disadvantage. As required in the National Defense Authorization Act for fiscal year 1991, a primary requirement for AC membership is that acquisition officers must obtain 24 business-related semester hours in accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management or equivalent. If officers do not receive these courses as part of their formal education programs or have them built into their designated career paths, they are required to remedy this requirement on their own. A concern is that this is placing a non-value added requirement on these AWF officers late in their career, putting them at risk for promotion non-selection and reducing the Navy's pool of fully qualified acquisition officers to fill CAPs and KLPs.

C.   PURPOSE OF THIS RESEARCH

The purpose of this research is to determine why the 24 business-related semester hours requirement for membership in the AC was mandated with the National Defense Authorization Act for fiscal year 1991, and, furthermore, to determine why these specific 11 business education disciplines were identified. This research will utilize prior fiscal

year AC board selection data to determine if there is a negative impact to the Navy AWF related to the 24 business-credit hour requirement compared to other selection criteria. In addition to board data, a survey will be used to further measure the impact of this requirement, while collecting subject opinions on the AC and the requirements for selection, including validity input on each individual business discipline. If there is an observed effect as a result of this requirement, conclusions and recommendations will be provided in order to mitigate the observed impact.

Table 1.   Acquisition Corps Membership Requirements
Source: ASN(RDA) (2011).

EDUCATION Degree and credit hours must be recorded on a college transcript from an institution of higher education that is accredited by a regional agency, which is approved by the Secretary of Education to grant accreditation. Quarter- or trimester-hours must be converted to semester hours	☐ Baccalaureate degree from an accredited educational institution, and **One** of the following: ☐ 24 semester credit hours from among the following disciplines: *accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management.* ☐ 24 semester credit hours in the person's career field and 12 semester credit hours in the disciplines listed above in italics. Credit hours within the person's career field may also satisfy the requirement for part or all of the 12 credit hours in the disciplines listed above. The same hours may be used to meet both requirements. ☐ 24 semester credit hours in the person's career field and training equivalent to 12 semester credit hours in the disciplines listed above in italics.
CERTIFICATION LEVEL	**One** of the following: ☐ DON civilian employee or military member certified at Level II or above in an Acquisition Career Field. ☐ Individual from outside DOD selected for a Critical Acquisition Position – qualified for certification at level II or above.
POSITION AND RANK	**One** of the following: ☐ DON Civilian: Must occupy a DON Acquisition Position at the GS-13 or higher grade (or equivalent) or tentatively selected for a KLP or CAP. ☐ DON Military: Must be at the O-4 grade (vice 0–4 select) or higher.
EXPERIENCE	☐ 4 years of service in an Acquisition Position either in the DOD or in a comparable position in industry or government. ➢ For Unrestricted Line Officers (URLs) only: Up to 18 months of acquisition experience may be credited for the same amount of time in CDR (O-5) or CAPT (O-6) command tour when responsibilities demonstrate program management competencies such as planning, execution, business acumen, resource management and interface with the materiel establishment(s).
Other	☐ CDR command screen for Surface Warfare and Submarine Warfare officers only.

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II. CREATION OF TODAY'S DEFENSE ACQUISITION WORKFORCE

A. HISTORY OF THE DEFENSE ACQUISITION UNIVERSITY

Prior to and during World War II, the United States of America underwent the largest industrial mobilization of its time. Since World War II, weapon systems have grown more and more complex in nature and more expensive. According to Layton (2007), during World War II and into the Cold War, the relationship between the government and industry changed, primarily due to the fact that the government no longer had the capability to produce its own weapon systems because of this increase in complexity. These complex weapons systems and sub-systems were now being produced by multiple contractors, which required the government to take on the role of a program manager in order to manage the contractors (Layton, 2007). These new roles required a knowledgeable and skilled workforce to execute these roles. The War Department was not equipped to operate in this new acquisition environment as this resulted in major impacts on cost, schedule and performance of increasing more complex weapon systems. These issues made national headlines during this time, resulting in the public's loss of confidence in the government as well as industry's refusal to do business with the government (Layton, 2007).

Layton (2007) states that "a properly functioning acquisition system requires an appropriate balance of three elements: (1) the policy, procedures, and processes that govern the system; (2) the organization that executes the policies and procedures; and (3) the *personnel* that make the system work" (p.3). Throughout the Cold War, a large number of laws and regulations were passed in order to improve the acquisition system, primarily in the first element of policy, procedures and processes, but this caused an adverse result as it hampered the acquisition process. (Layton, 2007). The second element of organization saw the establishments of the Under Secretary of Defense for Acquisition, or USD(A), to oversee the acquisition process. In addition, the USD(A) was created to carry out element one and ensure training and career development was accomplished for acquisition personnel (Layton, 2007). During these early beginnings

of the DOD acquisition system, the third element, acquisition personnel, received the least amount of attention (Layton, 2007)

Layton (2007) provides a detailed history of six commissioned studies by Congress post-WWII that were meant to identify and help to improve the acquisition system. Each of these reports is important as they show an evolution toward improving the acquisition personnel element. Layton (2007) goes on to discuss the six commissions and what each did or did not address toward improving the Acquisition Workforce. The first report, by the Hoover Commission in 1949, "did not address acquisition or procurement personnel" (Layton, 2007, p. 4). In 1955, the second report by the Hoover Commission, "urged that career paths be established in procurement" (Layton 2007, p. 4). In 1970, The Fitzhugh Commission issued a third report that concluded, "although a key determinant of a responsive and effective defense procurement process was the procurement personnel, the Commission found this had not been appropriately reflected in the recruitment, career development, training, and management of the procurement workforce" (Layton, 2007, p. 4). The fourth report was conducted two years later by the Commission on Government Personnel. This report, "called attention to the problems facing procurement officials" (Layton, 2007. p. 4) and more importantly "recognized a university structure was needed to oversee the acquisition career management program" (Layton, 2007, p. 4). The fifth report, the Grace Commission Report, was issued in 1984, "examined the regulatory environment in which the procurement process took place" (Layton, 2007, p. 4). This report did not address the personnel element of the acquisition process. After continuous pressure from Congress and an increasingly skeptical public, a sixth report was commission and conducted by former Deputy Secretary of Defense and co-founder of Hewlett-Packard, David Packard. His "report found that the DOD's Acquisition Workforce was undertrained, underpaid, and inexperienced, stating that their training was incomplete, leading to an adverse impact on their performance" (Layton, 2007, p. 5). "Packard's philosophy for the Acquisition Workforce focused on small, high-quality staffs consisting of well-trained and made highly motivated professionals" Layton, 2007, p. 5). This report, along with Packard's philosophy on the workforce, "became the lynchpin for the workforce reform legislation in 1990" (Layton, 2007, p. 5).

Beginning in the early 1960s, program management gained recognition as a critical career field, and education and training plans started to take shape. In April of 1963, Secretary of Defense Robert S. McNamara recognized the importance of a well-trained workforce in order to achieve successful program management. Deputy Secretary of Defense Roswell L. Gilpatric directed the establishment of the Defense Weapons System Management Center (DWSMC), located in Dayton, OH, would eventually provide a 10-week project management course when it officially opened on October 26, 1964. On June 30, 1971, after 22 project management courses had been given at DWSMC, Deputy Secretary of Defense David Packard disestablished the DWSMC and established the Defense Systems Management School (DSMS) at Fort Belvoir, VA. Packard wanted a school that produced program managers that were immediately capable of directing programs after graduation. This resulted in the course length being extended from 10 weeks (for the original course taught at the DWSMC) to five months (for the new course at the DSMS). In addition, program managers of major weapon systems were required to attend the five-month, DSMS course in accordance with the Defense Procurement Improvement Act (DPIA). Deputy Secretary of Defense William P. Clements, Jr., also recognized the importance of the DSMS and designed it as a college, which was then known as the Defense Systems Management College (DSMC) on July 16, 1976 (Layton, 2007).

After the establishment of the DSMC, Deputy Secretary of Defense William H. Taft IV established the acquisition career enhancement (ACE) program located at the DSMC to determine the health of the Acquisition Workforce (Layton, 2007). In 1986, the first ACE report was accomplished and it showed the acquisition training was mandated to the Acquisition Workforce, but there was no means of delivering the training (Layton, 2007). This report would eventually be used to justify the establishment of the Defense Acquisition University (Layton, 2007).

Layton (2007) states that this prompted Congress to adopt the Defense Acquisition Improvement Act of 1986, that directed the Secretary of Defense to provide a plan for the training of the Acquisition Workforce. As a result, DOD expanded education and training responsibilities through DSMC to include all acquisition career fields. Prior

to this, DSMC only provided these services to the program management career field. Layton (2007) states that in addition to the expanding career field management, "the ACE Program Action Group at the college was now designated as the executive agent to manage the training for acquisition personnel outside the program management functional area" (Layton, 2007, p. 9). In addition to expanding their mission, the plan also included streamlining and consolidating existing directives, instructions, and manuals on acquisition education and training. This plan was approved by Congress and led to two DOD directives issued in August 1988.

Layton (2007) goes on to describe that the first directive issued was DOD Directive (DODD) 5160.55, which expanded the role of the college to manage the career training for the entire Acquisition Workforce. The second was DODD 5000.52, which consolidated all directives, instructions, and manuals on acquisition training and education into a single manual. As Layton (2007) points out, this manual identified 12 career fields within the Acquisition Workforce and set standards for entry, intermediate, and senior levels in each career field. Even after these changes were implemented, the quality of the workforce continued to be poor because there was no means to execute these changes, to ensure acquisition personnel met the certification standards required for the complex acquisition process.

To improve the Acquisition Workforce, two independent studies were published that would lead to legislation that would significantly change the workforce for years to come. The first was the Defense Management Report (DMR), issued in 1989. The second report, called *Quality and Professionalism of the Acquisition Workforce*, was issued in May 1990 by the House Armed Services Committee. The DMR found that the individual service career development plan was well-structured for acquisition employees, but that each service had differing required training and experience (Cheney, 1989). The *Quality and Professionalism of the Acquisition Workforce* report found that the DOD was deficient in developing a high-quality, professional workforce (U.S. Congress House Armed Services Committee, 1990). The report presented statistics supporting this conclusion that calculated "only 29 percent of Navy program managers and 48 percent from Air Force were in compliance with the 1984 DPIA legislation that required

attendance at the DSMC program management course" Layton, 2007, p. 11). The report all stated that in addition, even though there was a mandatory four-year minimum assignment for program managers, tenure rates ranged from an average of 21 months to 24.5 months (U.S. Congress House Armed Services Committee, 1990). These reports concluded, that DSMC, "was unsuccessful in meeting the needs of DOD acquisition personnel because the college lacked the authority, resources, and support of the Defense Components" (Layton, 2007, p. 12). Layton (2007) concludes that as a result of these two reports, "Representative Nicholas Mavroules, chairman of the Investigations Subcommittee of the House Armed Services Committee, introduced the Defense Acquisition Workforce Improvement Act (DAWIA)" (Layton, 2007, p. 12). The house passed the bill by an overwhelming vote of 413 to 1, and the bill was signed into law on November 5, 1990, as the Defense Authorization Act for fiscal year 1991. The most significant part of this act was the establishment of the Defense Acquisition University (DAU).

B.   IMPLEMENTATION OF THE DEFENSE ACQUISITION WORKFORCE IMPROVEMENT ACT

Once DAWIA was passed and required implementation, the Secretary of Defense delegated overall authority and responsibility for the implementation of DAWIA to the USD(A) (Layton, 2007). Layton describes the Acquisition Workforce organization structure prior to DAWIA being passed and states that military departments and DOD agencies already had acquisition executives, "referred to as Component Acquisition Executives (CAEs)" Layton, 2007, p. 17). The CAEs, "had management responsibility for the Acquisition Workforce" (Layton, 2007, p. 17). "To assist the CAEs, DAWIA created Directors of Acquisition Career Management (DACMs) for each Military Department" (Layton, 2007, p. 17). Figure 2 further illustrates this DAWIA organization structure. DACMs were required to ensure their AWF personnel within their service branch were training and the pool of qualified personnel was adequate to fill various acquisition positions. Layton (2007) discusses that in order for the DOD to set policy and coordinate overall management of the various acquisition career field development, the Director of Acquisition Education, Training, and Career Development (AET&CD) was

established (Layton, 2007). The Director AET&CD, established the education, training and experience standards for each career field and DAWIA level of certification. These were then published in the DOD 5000.52-M in 1991 (Layton, 2007).
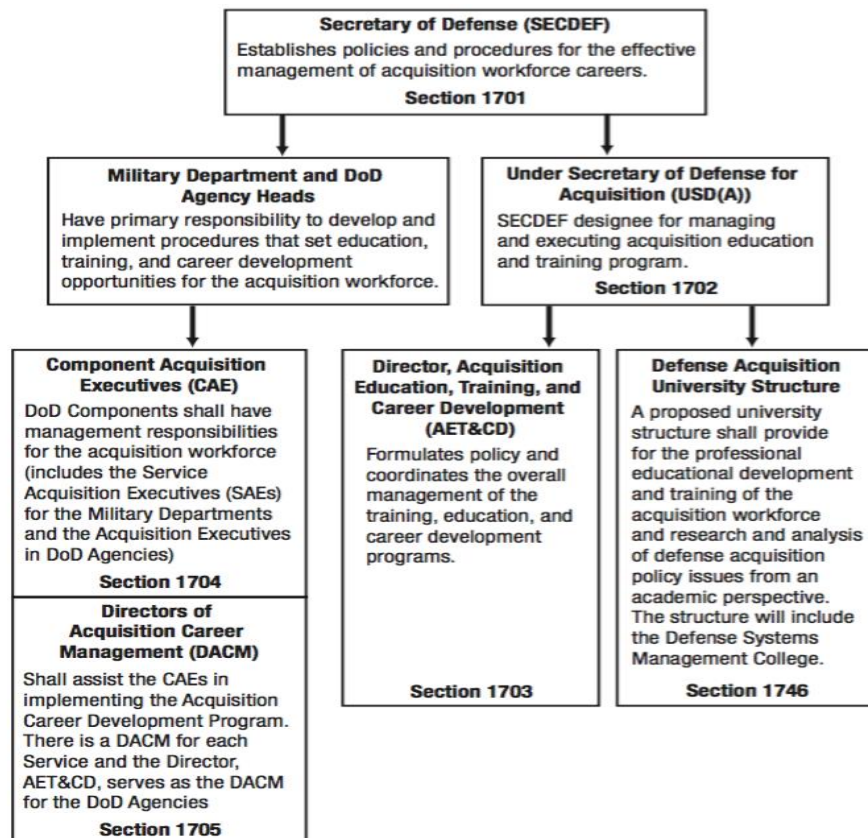
Figure 2.   DAWIA Collaborative Organizational Framework.
Source: Layton (2007).

C.   DAWIA CERTIFICATION STANDARDS

For each acquisition career field, there are experience, education, and training standards assigned to three career field levels, better known as DAWIA certifications. The basic or entry level, Level I, is intended for personnel in the ranks of O-1 through O-3; the intermediate or journeyman level, Level II, is intended for personnel in the ranks of O-3 through O-4; and the advanced level, Level III, is intended for officers ranked O-4 and above.

D. ACQUISITION CORPS

1. BACKGROUND

The Acquisition Professional Community (APC), established in 1990 and now known as the Acquisition Corps (AC), was created to recognize a highly qualified pool of AWF personnel to fill Critical Acquisition Positions (CAPs) and Key Leadership Positions (KLPs; ASN[RDA], n.d.-a). The AC is a way to recognize both civilian and military leaders, in the GS-13 ranks for civilians and O-4 and above ranks for military, as the "elite" within the acquisition community. The AC represents the highest level of achievement for acquisition professionals. As of September 30, 2011, 23% of DON AWF personnel, or 12,309 personnel, were members of the Acquisition Corps (ASN[RDA], n.d.-a). The requirements for acceptance into the AC are the same for all services and are detailed in Table 1. Acceptance into the AC for all active duty officers through the rank of O-6, must be selected through an AC Selection Board.

2. ELIGIBILITY CRITERIA

The National Defense Authorization Act of FY 1991 states the following selection criteria, exceptions, and waivers for AC membership. Officers must meet all four (rank, education, experience, and DAWIA certification) of the primary requirements for acceptance into the AC.

a. Rank Requirement

Military personnel must be at promoted to O-4 or higher.

b. Education Requirement

An officer must have at least baccalaureate degree from an accredited institution and have "*at least 24 business-credit hours from an accredited institution or equivalent in the following disciplines: accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management*" (National Defense Authorization Act, 1991, 104 Stat 1645).

If an officer has at least 24 credit hours in their respective acquisition career field and 12 business credit hours in the disciplines listed above, the 24 business-credit hour requirement will be satisfied. This rule is referred to as the "24/12" and it currently applies to the engineering, test and evaluation, science & technology manager, and production, quality, and manufacturing career fields.

c.   Experience Requirement

Officers must have at least 4 years of acquisition experience within their acquisition career field.

d.   Other Requirements/DAWIA Certification Level

The officer must be at least DAWIA level II or higher in their respective acquisition career field.

3.   EXCEPTIONS

When the DAWIA was passed, a grandfathering period was established in regard to the education requirements that stated, "to any employee who, on October 1, 1991, has at least 10 years of experience in acquisition positions or in comparable positions in other government agencies or the private sector" (National Defense Authorization Act, 1991, 104 Stat 1645), the education requirement would be waived. In addition, if a an employee was serving in an acquisition position on that date, but did not have 10 years of experience, they could pass an exam to demonstrate knowledge comparable to an individual that completed the 24 business-credit hour requirement.

4.   WAIVER

The acquisition career program board holds the authority to waive any of the AC membership requirements.

E.   RESEARCH QUESTION: WHY WAS THE 24 BUSINESS-CREDIT HOUR REQUIREMENT ENACTED?

The Defense Authorization Act (1991), which established the requirement that all Acquisition Corps members must have at least 24 business-credit hours from an

accredited institution, was designed to ensure that senior acquisition positions within the DOD were being filled by personnel that had a thorough understanding of general business practices. At the time when DAWIA was being passed in 1990, the most established acquisition career field was program management. PMs were involved in Major Defense Acquisition Programs (MDAPs) that required officers in this career field to have a comprehensive business education in order to perform effectively in these CAP and KLP billets. PMs are similar to a chief operating officer (COO) in the private sector, a PM is responsible for essentially running a business. When these requirements were drafted and made into a law, the requirement was meant to ensure that senior leaders in charge of major programs had formalized business education, something that is required of all COOs in the private sector. There is no doubt or dispute that PMs should have formalized business education, which is why this requirement was enacted, but the question remains whether this level of business education should be required for all acquisition career fields.

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III.   NAVY DEFENSE ACQUISITION CORPS COMPOSITION AND DAWIA CERTIFICATION ANALYSIS

A.   ACQUISITION CORP SPECIALTY FIELDS

The DOD evaluates acquisition positions based on the duties to be performed and assigns them to a particular acquisition career field. Each acquisition career field has a position category description (PCD) that describes in detail the responsibilities of that career field, what billets personnel serve in and where they serve. The PCDs are described in DOD 5000.52-M. The distribution of these acquisition career fields is shown in Figure 3.
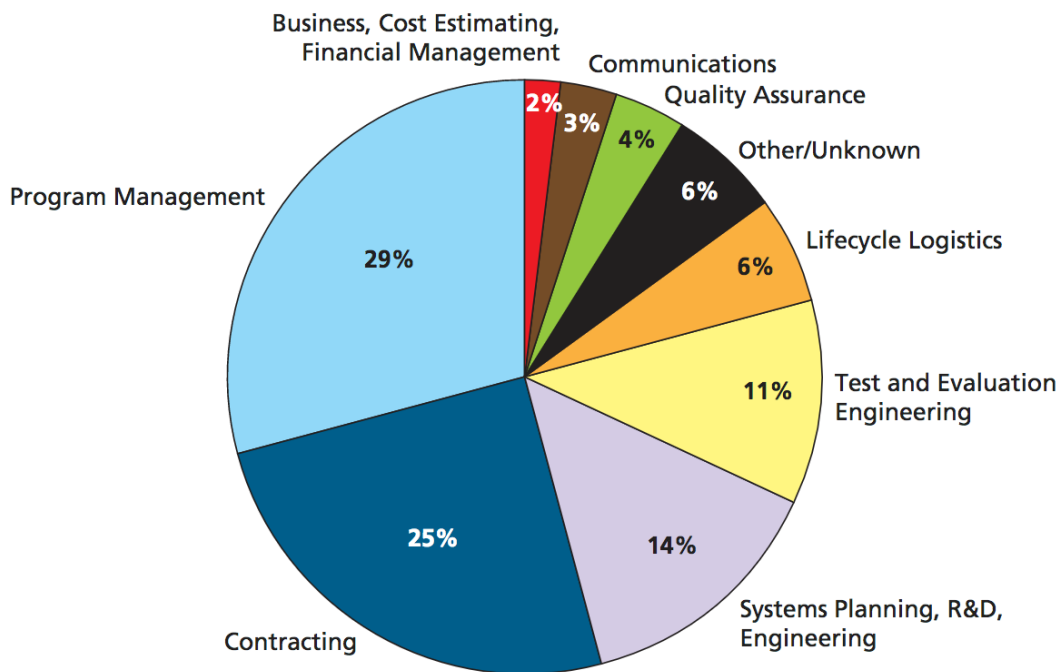
Figure 3.   Career Field Distribution of the Military Acquisition Workforce, Fiscal Year 2006. Source: RAND (2008)

1.   Business Cost Estimating/Business Financial Management

According to the Acquisition Career Development Program manual, the business cost estimating (BUS-CE) and business financial management (BUS-FM) career fields specialize in "financial planning, formulating financial programs, administering budgets, accounting for obligations and expenditures of funds, cost performance management of

contractors, and cost estimating" (USD[AT&L], 1995, Appendix E-1). The business field is separated into two fields: cost estimating and financial management. Acquisition personnel in these career fields serve in acquisition organizations PEO and PM offices.

2.   Program Management

The program management (PM) career field manages defense acquisition programs. Personnel in this field serve as PMs, deputy PMs, and program executive officers (PEOs). PMs are normally assigned to major program officers such as NAVAIR, NAVSEA, and SPAWAR.

3.   Contracting

According to the Acquisition Career Development Program manual, the contracting (CON) career field "develops, manages, supervises, or performs policies and procedures involving the procurement of supplies and services; construction, research, and development; acquisition planning; cost and price analysis; selection and solicitation of sources; preparation, negotiation, and award of contracts through sealed bidding or negotiation procedures; and all phases of contract administration, termination, or closeout of contracts" (USD[AT&L], 1995, Appendix C-1). Personnel in this career field serve as contracting officers, contract specialists, administrative contracting officers and cost and pricing analyst.

4.   Auditing

The auditing career field performs contract auditing, accounting and financial services. Personnel in this career field serve as field and procurement liaison auditors at major procurement commands.

5.   Test and Evaluation

The test and evaluation (T&E) career field plans, monitors and conducts the test and evaluation of prototypes, new, or modified weapon systems. Personnel in this field serve as test and evaluators at test centers and ranges.

6. Communications/Information Technology

The communications/information technology (IT) career field is responsible for the management and/or direct support for acquisitions that develop, manage, field and sustain IT hardware and software, including national security systems and IT service contracts. Personnel in this field serve at acquisition organizations at system commands, material commands, and acquisition program offices.

7. Facilities Engineering

From the DAU facilities engineering community webpage, the facilities engineering (FE) career field involves "the design, construction and life cycle maintenance of military installations, facilities, civil work projects, airfields, roadways and ocean facilities" (Facilities Engineering, n.d., para. 1). Personnel in this field serve in engineering, architecture, planning, real estate, environmental engineering, facilities management, maintenance, inspection and public works within system commands and material commands.

8. Industrial and/or Contract Property Management

According to the Acquisition Career Development Program manual, the industrial and/or contract property management (IND) career field "manages, supervises, performs, or develops policies and procedures for professional work involving the acquisition, control, management, use, and disposal of government-owned property used by contractors or in storage to support future contractual requirements" (USD[AT&L], 1995, Appendix C-1-1). These positions are within Defense Contract Management Agency (DCMA) and other acquisition organizations within the service components.

9. Life Cycle Logistics

The life cycle logistics (LCL) is assigned to major defense acquisition programs (MDAP) (ACAT I), post-OIC MDAP programs, non-MDAP (ACAT II) and post-IOC ACAT II programs. The LCL career field is responsible for designing and implementing weapon system support package that meets cost and system availability rates. Personnel

within the LCL career field are assigned to acquisition organizations within the DOD (e.g. systems, logistics and/or materiel commands, DRPMs, and PEOs).

10. Production, Quality, and Manufacturing

The production, quality, and manufacturing (PQM) career field is split into two primary fields, production and manufacturing and quality assurance.

According to the Acquisition Career Development Program manual, the production and manufacturing field, "involves program management or monitoring the manufacturing and production efforts at private sector contractor or government industrial facilities" (USD[AT&L], 1995, Appendix F-1). The quality assurance field performs production/manufacturing surveillance/oversight of defense Contractors, their associated production/service sub-contractors, and organic/inorganic industrial base activities.

11. Purchasing

According to the Acquisition Career Development Program manual, personnel in the purchasing (PUR) career field "purchase, rent, or lease supplies, services, and equipment through either formal open-market methods or formal competitive bid procedures, with the primary objective of the work being rapid delivery of goods and services in direct support of operational requirements" (USD[AT&L], 1995, Appendix C-2-1). Personnel within this field serve as purchasing agents and supervisory purchasing agents that work at any DOD activity/organization that performs purchasing functions.

12. Science & Technology Manager

According to the Acquisition Career Development Program manual, personnel serving in the science & technology manager (S&TM) career field, "plan, organize, monitor, manage, oversee, and/or perform research and engineering activities relating to the design, development, fabrication, installation, modification, or analysis or systems or system components (USD[AT&L], 1995, Appendix G-1). These personnel work at research development and engineering centers for the Army, warfare centers for the

Navy, and Defense Threat Reduction Agency (DTRA) and National Geospatial-Intelligence Agency (NGA) for the Air Force and Fourth Estate organizations.

13.   Engineering

The engineering career field plans, manages, monitors/oversees, or performs analysis, conducts research, designs, develops, fabricates, installs, modifies or sustains systems across the entire life cycle. Personnel in this field serve as project officers, project engineers, scientists, supervising project engineers, computer engineer/scientist, operations research analyst, software engineer, naval architect, specialty engineer, reliability engineer, design engineer, cost engineer, etc.   These personnel normally service in billets at system commands, materiel commands and other organizations supporting these command types.

B.   ACQUISITION WORKFORCE PERSONNEL COMPOSITION

1.   Total Navy Acquisition Positions by rank

The Acquisition Workforce personnel composition information used to build the graphs and tables in this section were constructed using raw acquisition manning listings. There are approximately 3,776 Acquisition Corps Officers within the U.S. Navy between the ranks of O-1 through O-9, as shown in the billet breakdown in Figure 4. Most acquisition billets are in the O-3, O-4, and O-5 pay grade, and decrease by 46% from O-5 to O-6 level. This decrease is due to these billets transitioning from non-critical acquisition billets to Critical Acquisition Positions (CAP) and Key Leadership Positions (KLP).
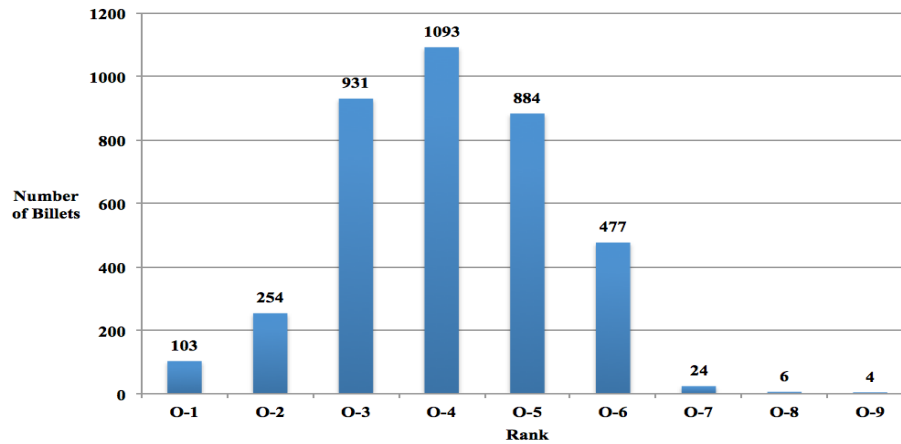
Figure 4.   Total Navy Acquisition Billets by Rank. Adapted from Navy
Workforce Manager, Personal Communication (2016).

Critical Acquisition Positions (CAP) and Key Leadership Positions (KLP) make up the majority of acquisition positions in the ranks of O6 through O9. These positions are considered highly important to the success of major defense acquisition programs, and officers are required to be members of the Acquisition Corps in order to fill these select billets. Figure 5 provides a graphic representation of the amount of non-critical, CAP and KLP billets by designator. The Civil Engineer Corps (CEC) community has the highest number of non-critical acquisition billets totaling 799, which are in the contracting career field. Aviation Engineering Duty Officers (AEDO) and Engineering Duty Officers (EDO) have the highest number of CAP billets with 132 each, while EDOs also have the highest number of KLP billets at 21 billets.
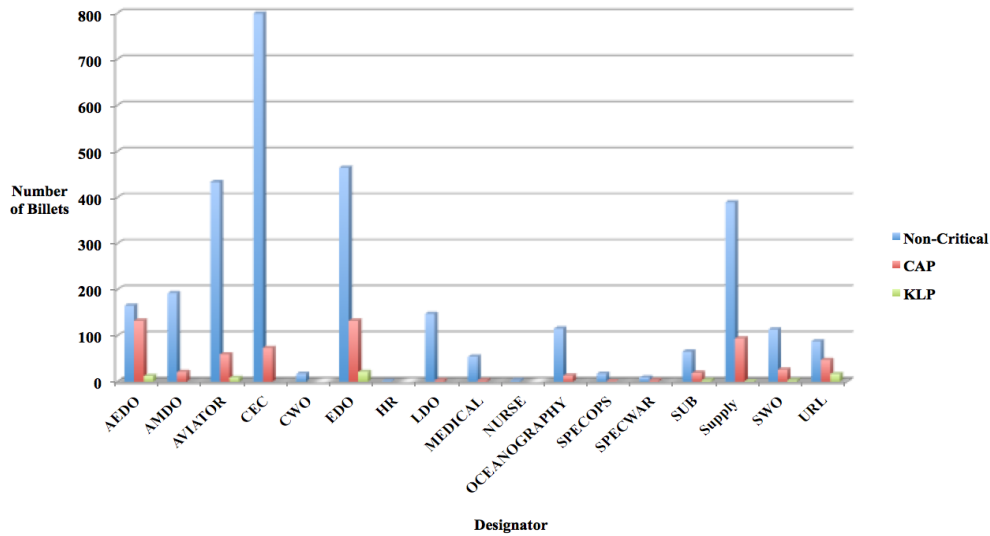
Figure 5.　Non-Critical Acquisition, CAP, and KLP Billets by Designator.
Adapted from Navy Workforce Manager, Personal Communication
(2016).

The majority of junior officer (O-1 through O-3) billets are CEC officers within the contracting career field, as shown in Table 2. In addition, the CEC Community has the highest number of acquisition billets at 872 billets, which are all in the contracting career field. The supply corps has 94 billets at the O-2 pay grade in the life LCL, contracting, business financial management (BFM) and a couple of billets in program management and production, quality and manufacturing (PQM) that are part of an internship for junior officers after their first operational tour.

Table 2.   Navy Acquisition Designator Billet Breakdown by Rank. Adapted from Navy Workforce Manager, Personal Communication (2016).

DESIGNATOR	O1	O2	O3	O4	O5	O6	O7	O8	O9	Grand Total
				RANK						
AEDO			20	104	116	75	2			317
AMDO	8	15	61	67	66	11				228
AVIATOR	1		225	112	118	40	3		1	500
CEC	89	126	249	231	120	53	3	1		872
EDO		1	122	204	173	112	8	2	1	623
HR					2					2
LDO	4	10	32	58	43	4				151
MEDICAL	1	2	20	16	14	4				57
NURSE				1	2					3
OCEANOGRAPHY		4	51	34	26	14				129
SPECOPS			7	6	4	1				18
SPECWAR		1	4	3	2	2				12
SUB			21	30	17	19				87
Supply		94	70	154	97	67	3			485
SWO			27	44	43	28				142
URL		1	22	29	41	47	5	3	2	150
	103	254	931	1093	884	477	24	6	4	3776

AEDO and AMDO communities have the majority of their billets within the PM and PQM career fields. Additional career fields that AEDOs and AMDOs serve in are shown in Figure 6.
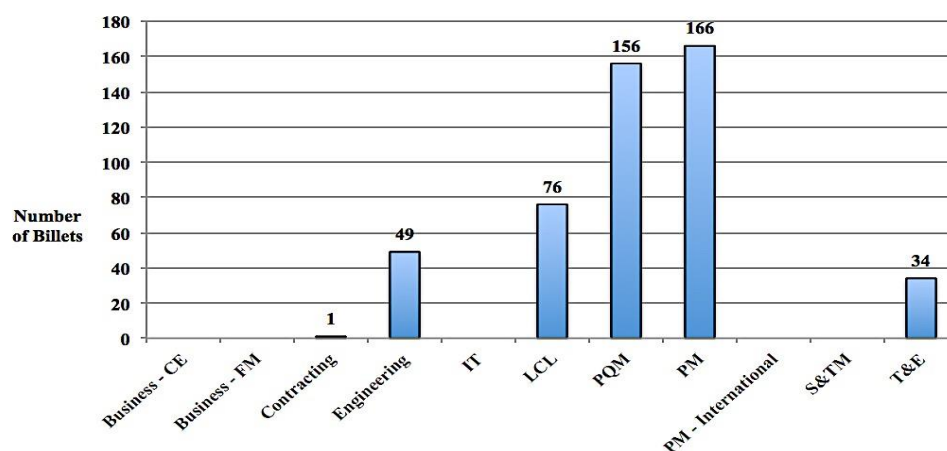
Figure 6.   Navy Acquisition Corps Billets by Career Field: Aviation Engineering Duty Officer (AEDO) and Aviation Maintenance Duty Officer (AMDO). Adapted from Navy Workforce Manager, Personal Communication (2016).

Figure 7 shows that AMDOs have only 21 CAP billets in the rank of O5 and O6. The AMDO community has a total of 199 non-critical acquisition billets, which equates to 11% of their non-critical billets eventually shifting to CAP billets in the O5 and O6 rank.
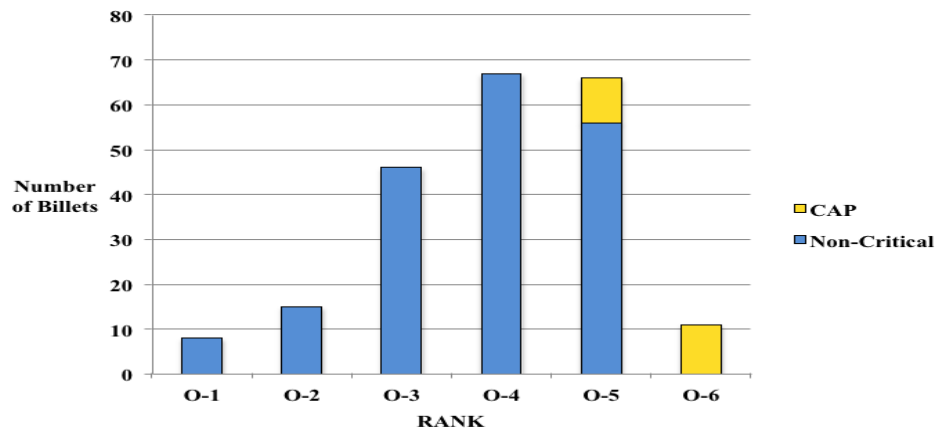
Figure 7.   Aviation Maintenance Duty Officer (AMDO) Non-Critical, Critical Acquisition Position (CAP), and Key Leadership Position (KLP) Billets by Rank. Adapted from Navy Workforce Manager, Personal Communication (2016).

As discussed previously, the AEDO community has one of the highest number of CAP and KLP billets at 132 and 12, respectively, second in quantity only to the EDO community. The AEDO community has a total of 173 non-critical acquisition billets, with a total of 144 of those billets converting to CAP or KLP billets starting at the O5 pay grade. This is an 83% conversion rate from non-critical billets to CAP or KLPs, which is significant. Factoring in average attrition rates for naval officers, the AEDO community should plan for every acquisition officer to become a member of the Acquisition Corps in order to fill their CAP and KLP billets. In addition, there are no acquisition billets for the AEDO community in the O-1 and O-2 pay grade, with only 14 billets at the O-3 pay grade and 102 at the O-4 pay grade as shown in Figure 8.
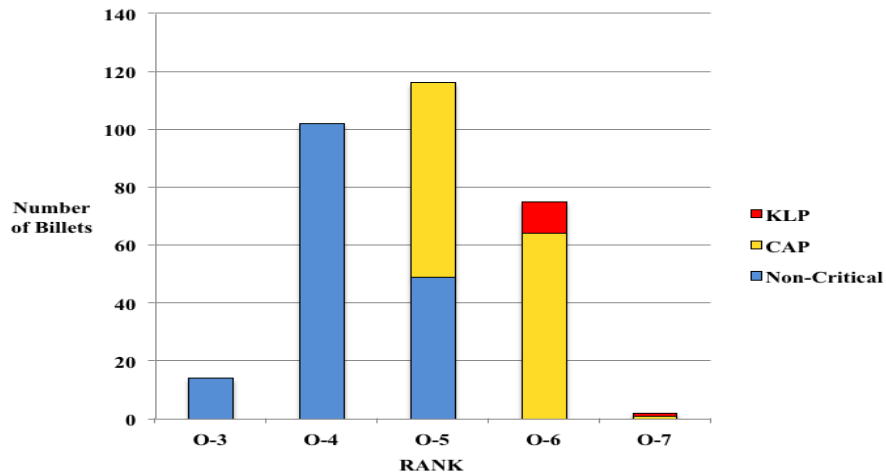
Figure 8.   Aviation Engineering Duty Officer (AEDO) Non-Critical, Critical
Acquisition Position (CAP), and Key Leadership Position (KLP)
Billets by Rank. Adapted from Navy Workforce Manager, Personal
Communication (2016).

The aviation community consists of aviators and naval flight officers (NFO) that serve the majority of their billets (252) in the T&E career field and a large portion in the PM career field, as shown in Figure 9.
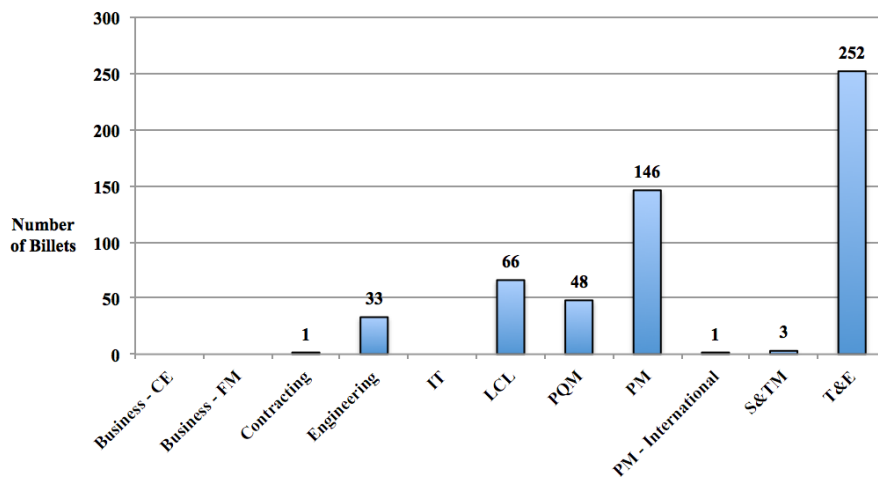
Figure 9.   Aviator (Pilot and NFO) Navy Acquisition Corps Billets by Career
Field. Adapted from Navy Workforce Manager, Personal
Communication (2016).

Graphically displayed in Figure 10, the majority of the aviation community's acquisition billets are in the O-3 pay grade and reduce by 48% from O-3 to O-4. The aviation community has 433 non-critical acquisition billets and 67 CAP and KLP billets. The aviation community must convert 15% of their non-critical acquisition billets to CAP and KLP billets, which is not a significant amount.
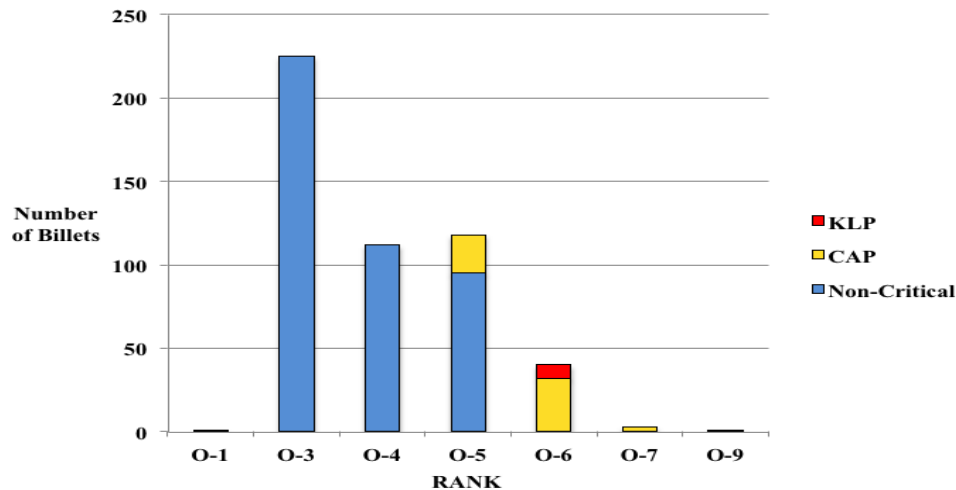
Figure 10.   Aviator (Pilot & NFO) Non-Critical, CAP, and KLP Billets by Rank. Adapted from Navy Workforce Manager, Personal Communication (2016).

The CEC community has the majority of their billets in the contracting career field at 887, with only 18 in program management and two in test and evaluation as shown in Figure 11. Figure 12 a bell shaped data curve with non-critical acquisition billets ramping up at the O-1 pay grade, reaching a peak at O-3 and beginning to decrease at O-4, O-5, and O-6. The CEC community only has 73 CAP billets, which is a conversion rate from non-critical acquisition billets to CAP billets of only 9%, which is relatively small compared to other communities.

Figure 11.   CEC Navy Acquisition Corps Billets by Career Field. Adapted from
Navy Workforce Manager, Personal Communication (2016).

Figure 12.   CEC Non-Critical, CAP, and KLP Billets by Rank. Adapted from
Navy Workforce Manager, Personal Communication (2016).

The EDO community has the majority of their acquisition billets in the PQM and
PM career field with 309 and 210 respectively, as shown in Figure 13.

Figure 13.   Engineering Duty Officer (EDO) Navy Acquisition Corps Billets by Career Field. Adapted from Navy Workforce Manager, Personal Communication (2016).

The EDO community has 464 non-critical acquisition billets, with 153 CAP and KLP billets in the O-5 through O-9 pay grades. This is a 33% conversion rate from non-critical acquisition billets to CAP and KLP billets. The EDO community billet data has a bell shaped curve shown in Figure 14, with billets 117 billets in the O-2 and O-3 pay grade and increasing to 204 at the O-4 level.
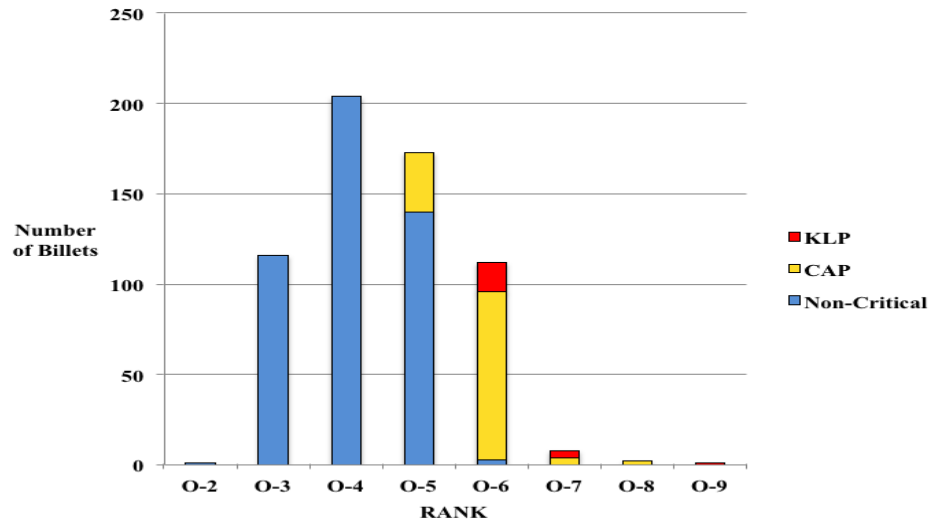
Figure 14.   Engineering Duty Officer (EDO) Non-Critical, Critical Acquisition
Position (CAP), and Key Leadership Position (KLP) Billets by Rank.
Adapted from Navy Workforce Manager, Personal Communication
(2016).

There are approximately 150 acquisition billets that can be filled by any unrestricted line (URL) designator. These billets have an unspecified community designator that is capable of filling these billets. The majority of these acquisition billets are in the PM career field, as shown in Figure 15.

Figure 15. Non-Specific Designator (Other) Navy Acquisition Corps Billets by Career Field. Adapted from Navy Workforce Manager, Personal Communication (2016).

As shown in Figure 16, these billets increase significantly from O-3 through O-6 and decrease drastically at the O-7 pay grade. The O-6 pay grade is entirely made up of CAP and KLP billets. There is a 72% conversion rate from non-critical acquisition billets converting to CAP and KLP billets. This unspecified URL community also has the second highest number of KLP billets at 16.
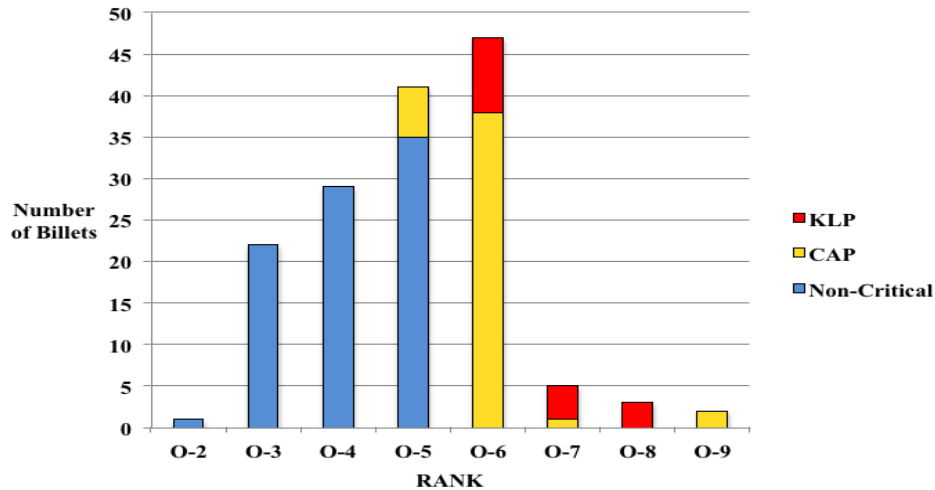
Figure 16.   Non-Specific Designator (Other) Non-Critical, Critical Acquisition
Position (CAP), and Key Leadership Position (KLP) Billets by Rank.
Adapted from Navy Workforce Manager, Personal Communication
(2016).

The submarine community has a total of 87 acquisition billets mostly in the PM and T&E career fields, as shown in Figure 17. The submarine community has a very small number of acquisition billets at 87 when compared to other major communities. In Figure 18, it shows that the number of billets per pay grade stay consistent, with a slight increase at the O-4 pay grade, with the majority of CAP and KLP billets in the O-6 pay grade. The community has a total of 65 non-critical acquisition billets and 22 CAP and KLP billets, which equates to a 34% conversion rate from non-critical acquisition billets to CAP and KLP billets. This is a manageable number to manage, coupled with the small number of total billets within the community.
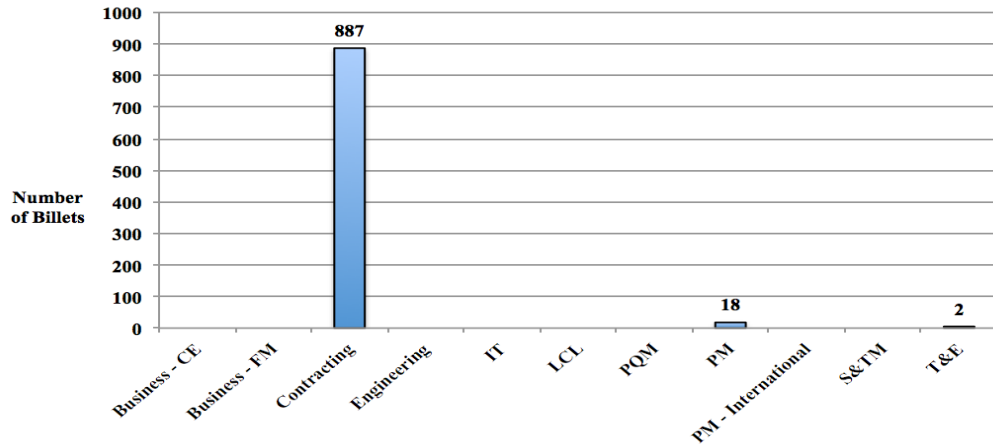
Figure 17.   Submarine Warfare Officer (Sub) Navy Acquisition Corps Billets by
Career Field. Adapted from Navy Workforce Manager, Personal
Communication (2016).

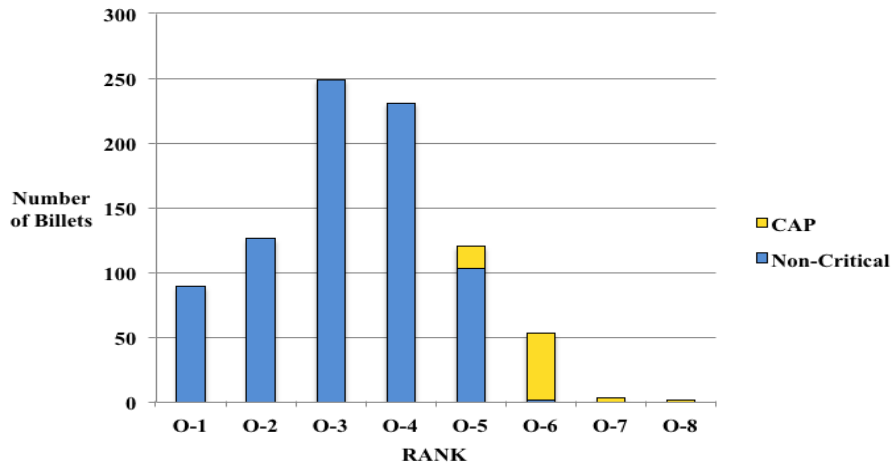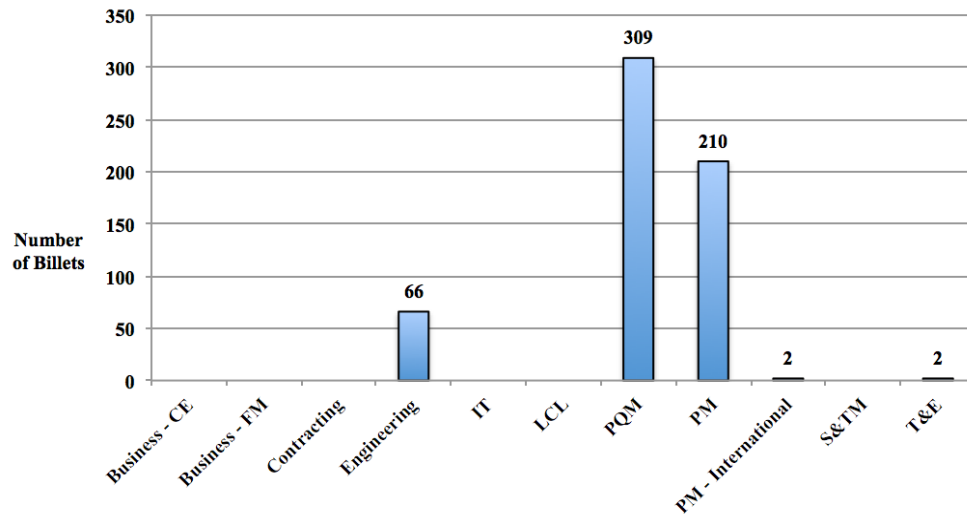Figure 18.   Non-Critical, Critical Acquisition Position (CAP), and Key Leadership
Position (KLP) Billets Submarine Warfare Community by Rank.
Adapted from Navy Workforce Manager, Personal Communication
(2016).

The supply corps consists of 484 acquisition billets, with the majority of the billets in the business financial management, contracting and life cycle logistics career fields, as shown in Figure 19. Similar to the submarine community, the supply corps billet numbers are spread evenly across each pay grade, with an increase at the O-4 pay grade, as displayed in Figure 20. The officers in the supply corps receive on-the-job training at the O-2 and O-3 pay grade through internship programs that are normally 24-month tours immediately after their first sea tour. In addition, the supply community is focused on business-related aspects within the Navy, so the majority of these officers either have an undergraduate or postgraduate degree in business. There are 389 non-critical acquisition billets and 95 CAP and KLP billets, for a 24% conversion rate from non-critical acquisition billets to CAP or KLPs. This is a low number, coupled with the fact that most officers receive the requirements for AC membership, this billet structure is not a concern.
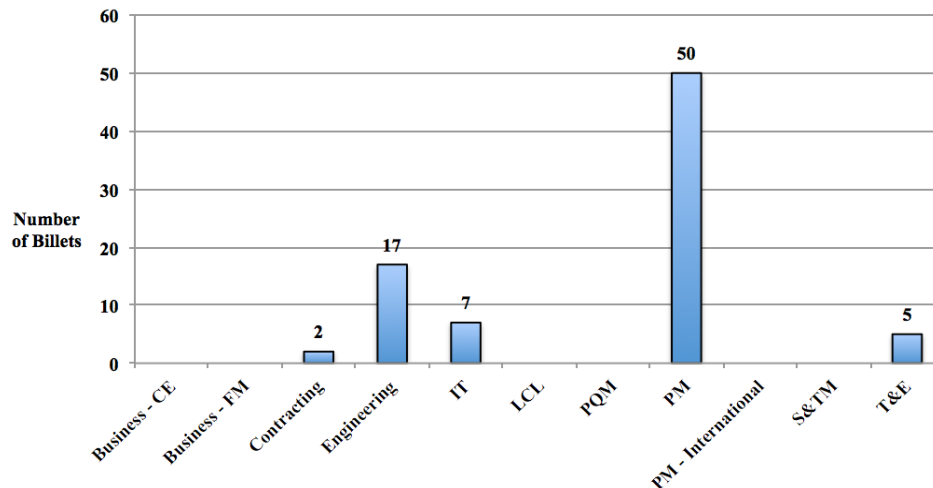

Figure 19.   Supply Corps (Supply) Navy Acquisition Corps Billets by Career Field. Adapted from Navy Workforce Manager, Personal Communication (2016).

Figure 20.   Supply Corps Non-Critical, CAP, and KLP Billets by Rank. Adapted
from Navy Workforce Manager, Personal Communication (2016).

The surface warfare community has 142 acquisition billets, with the majority of
the billets in the PM, T&E, and engineering career fields, as shown in Figure 21. The
billets types by rank in Figure 22 show a bell shaped curve in billet quantities from O-3
through O-6 pay grades. The surface warfare community has no Flag Officer billets. The
community has a total of 113 non-critical acquisition billets and 29 CAP and KLP billets,
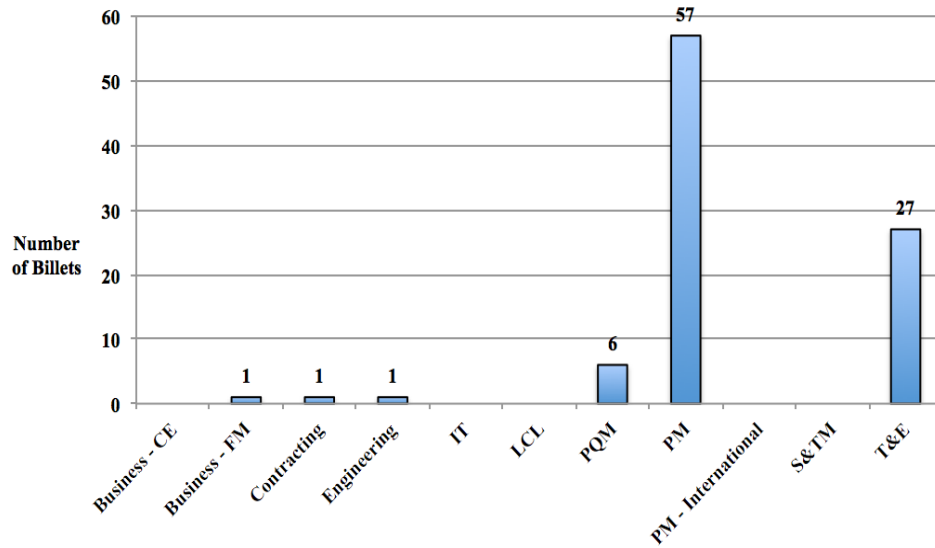for a 26% conversion rate.

Figure 21.   Surface Warfare Officer (SWO) Navy Acquisition Corps Billets by Career Field. Adapted from Navy Workforce Manager, Personal Communication (2016).
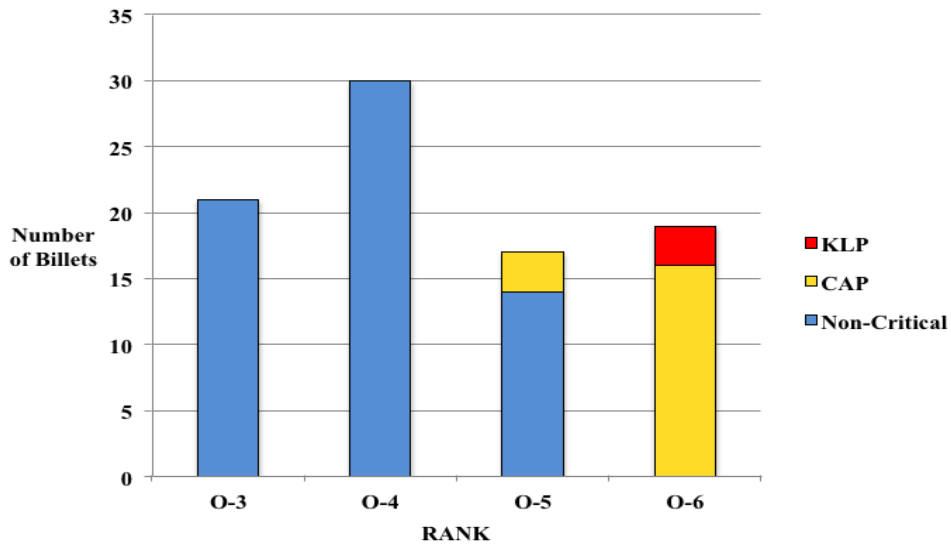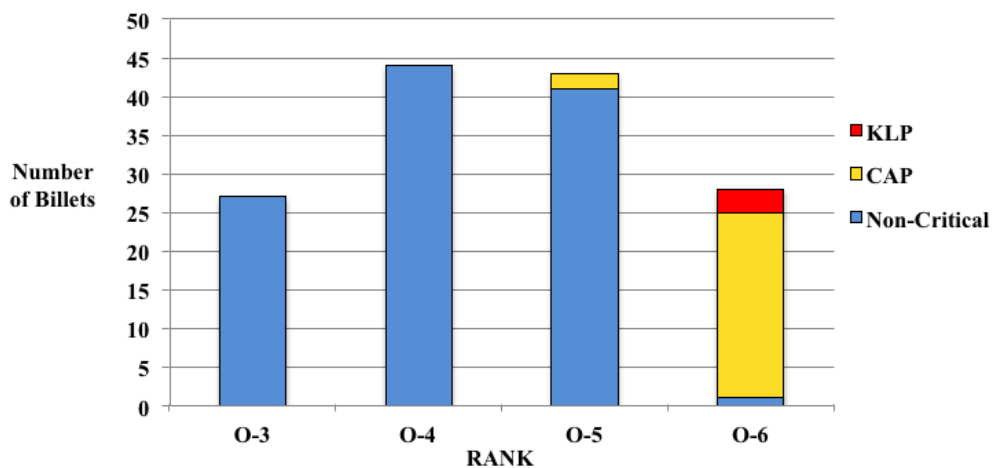

Figure 22.   Surface Warfare Community Non-Critical, Critical Acquisition Position (CAP), and Key Leadership Position (KLP) Billets by Rank. Adapted from Navy Workforce Manager, Personal Communication (2016).

The medical and nurse corps only has a total of 60 acquisition billets combined. The billets are in the S&TM, LCL, PM, T&E, engineering, and PQM career fields, as shown in Figure 23. As shown in Figure 24, the number of non-critical acquisition billets across the O-3 through O-5 pay grades is steady and decreases significantly at the O-6 pay grade. The medical and nurse corps only has 3 CAP billets, which equates to a 2% conversion rate from non-critical acquisition billets to CAP billets.
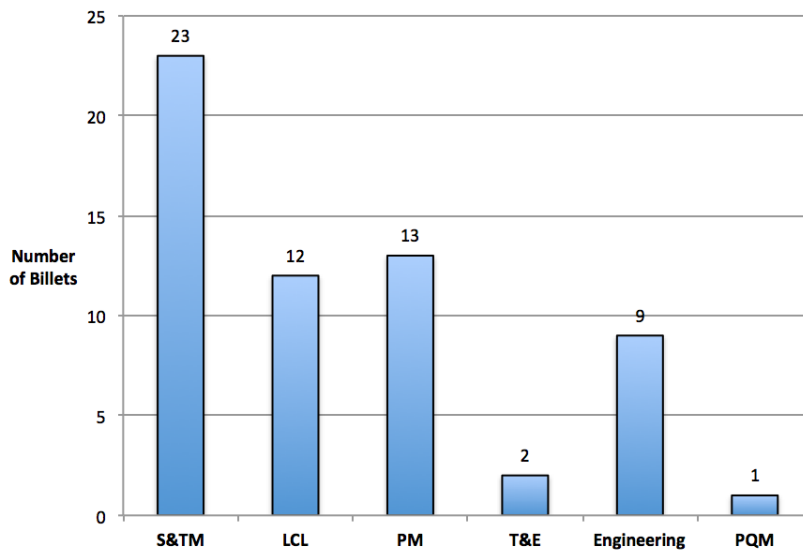
Figure 23.   Medical and Nurse Corps Navy Acquisition Corps Billets by Career Field. Adapted from Navy Workforce Manager, Personal Communication (2016).
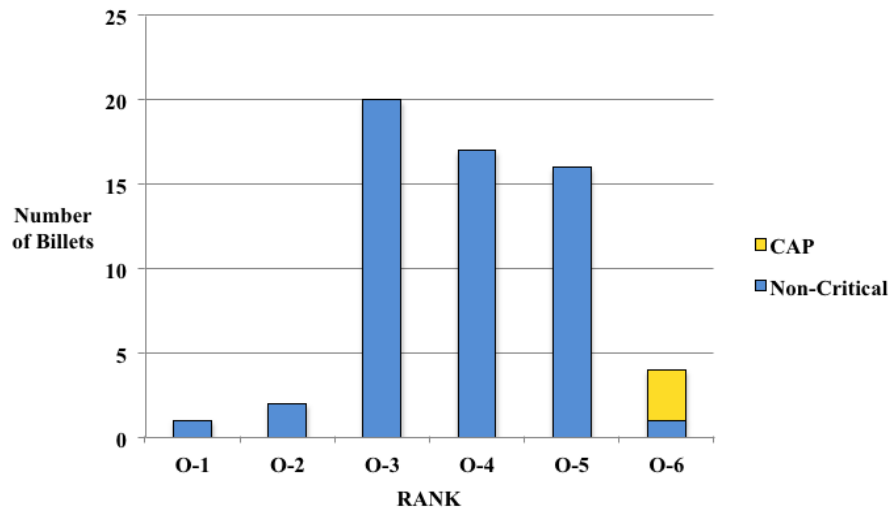
Figure 24. Medical & Nurse Corps Non-Critical, Critical Acquisition Position (CAP), and Key Leadership Position (KLP) Billets by Rank. Adapted from Navy Workforce Manager, Personal Communication (2016).

The special warfare community is a combination of special warfare and explosive ordnance disposal (EOD) designators for the purpose of this data. This community has a total of 30 acquisition billets in the PM and T&E career fields, as shown in Figure 25. The majority of the billets are in the O-3 pay grade and gradually decline to the O-6 pay grade, as shown in Figure 26. There are a total of 26 non-critical acquisition billets and four CAP billets, for a conversion rate of 15%.
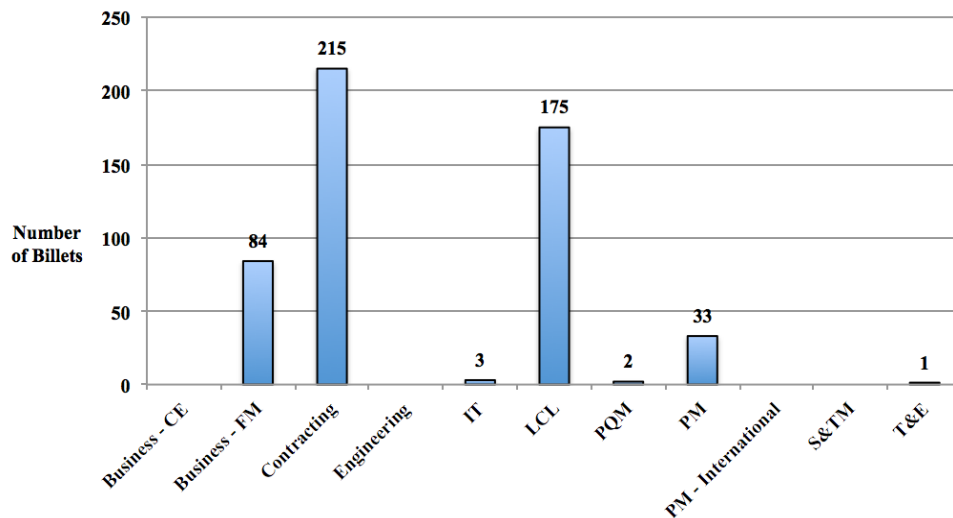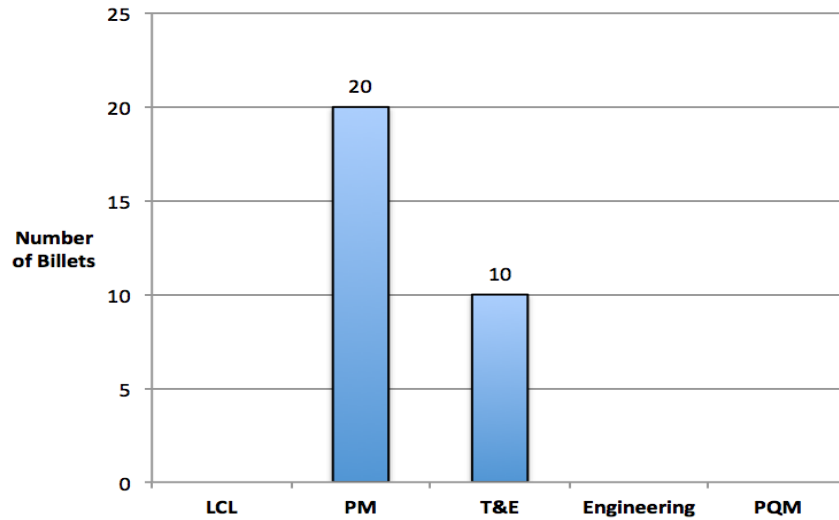
Figure 25.   Special Warfare Navy Acquisition Corps Billets by Career Field.
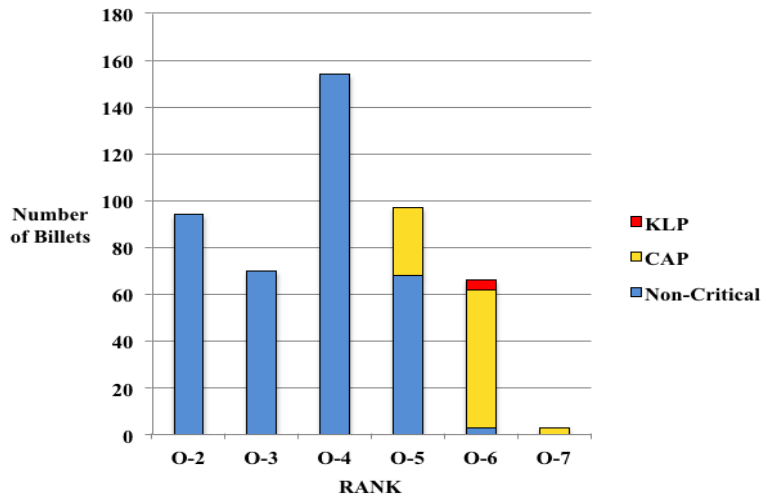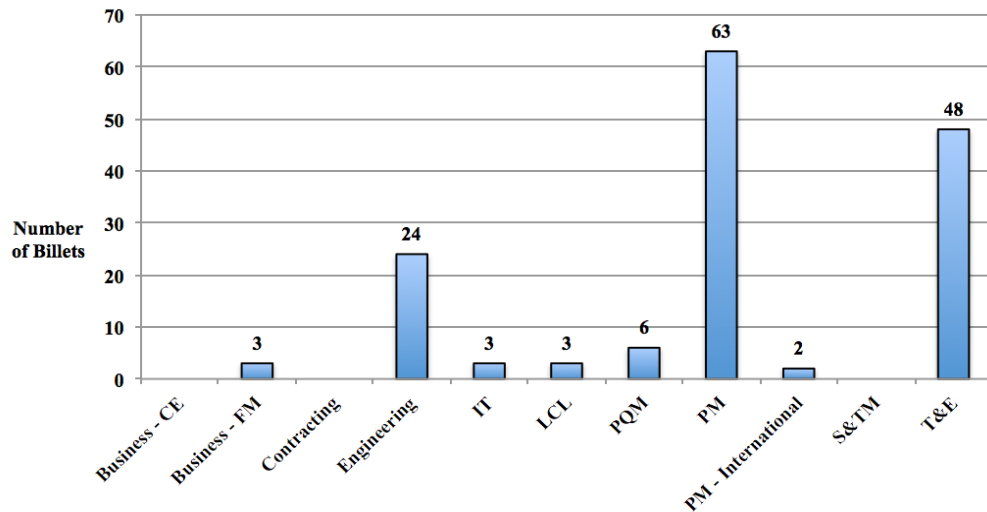Adapted from Navy Workforce Manager, Personal Communication
(2016).
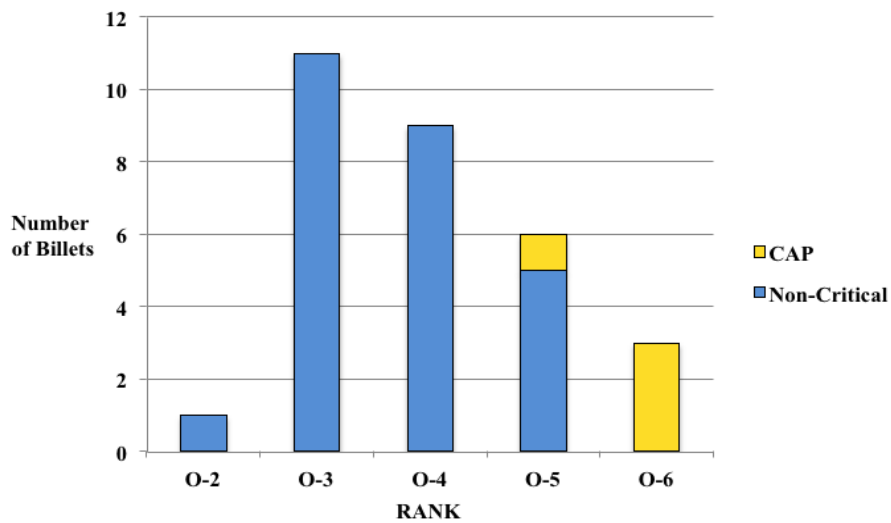
Figure 26.   Special Warfare Non-Critical, CAP, and KLP Billets by Rank.
Adapted from Navy Workforce Manager, Personal Communication
(2016).

C. TYPICAL CAREER PATH OF AN ACQUISITION OFFICER

Figure 27 shows the typical career path for each primary community designator in the Navy. The SUB URL (submarine warfare) career path does not require any acquisition experience tours until year 21. An officer with 21 years of service would already be a senior commander (O-5) or newly promoted to captain (O-6). The submarine warfare community has 51 non-critical acquisition billets at the O-3 and O-4 pay grade, which is not represented on this career path. The SWO community does not have an acquisition tour designated on the career path until year 13. At 13 years of service, an officer would be a senior lieutenant commander. There are 27 non-critical acquisition billets within the SWO community, which are also not reflected on Figure 27. This career path chart highlights the fact that several communities do not have an adequate number of acquisition experience tours prior to 10–15 years of commissioned service. This does very little in identifying a deficiency in achieving the 24 business-credit hours, but it does show that only three of the eight communities in Figure 27 have formal education (NPS or postgraduate school) identified in their career path.
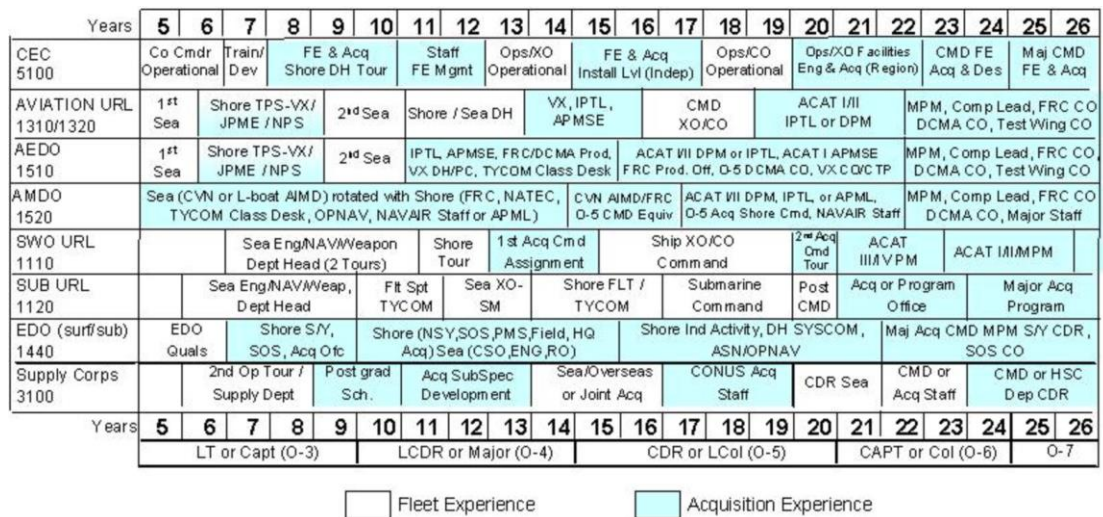
Figure 27.   Navy Officer Acquisition Career Path. Source: ASN(RDA) (n.d.-b).

D.   DAWIA LEVEL CERTIFICATION ANALYSIS

Each acquisition career field has designated formal education, experience, and DAU training for each DAWIA level (I, II, and III). Each DAWIA level is further separated between Core Certification Standards that consist of requirements that must be met for certification and Core Plus, which are additional standards that are required beyond the minimum core standards to fill specific assignments with that acquisition career field (DAU, 2016-b). Figure 28 further shows the relationship between core certification standards and Core Plus.
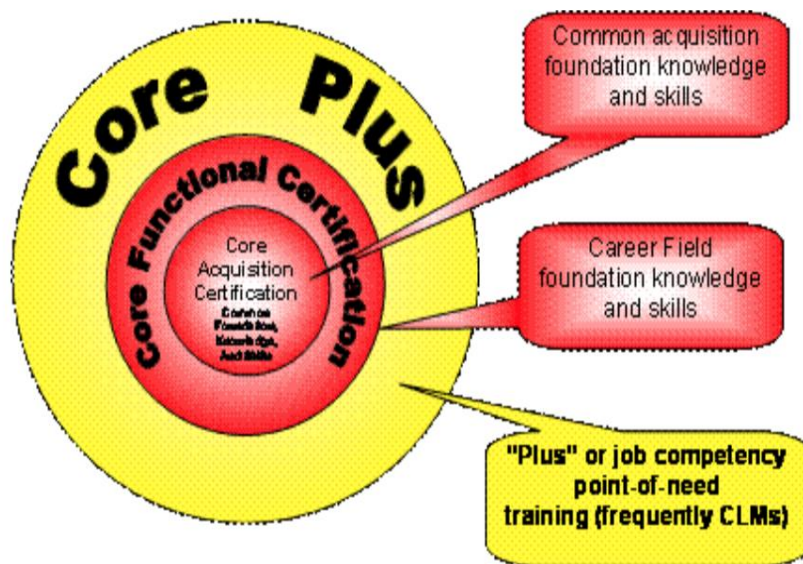
Figure 28.   DAWIA Core Plus Overview. Source: DAU (2016a).

As discussed previously, each acquisition career field is assigned three DAWIA levels of certification that consist of formal education requirements, experience length, and DAU training. Once an acquisition officer meets all of the core certification standards for that level, they are certified. In addition, each DAWIA level is assigned extra core plus standards that are above and beyond the core certification only required for certain positions within that career field. The formal education, acquisition experience length, and the 24 business-credit hour requirement was extracted from each individual career field (core requirement and core plus) and transposed into Table 3. The

requirement to have business credits is not normally a DAWIA certification requirement for the majority of career fields, but since it is a requirement for the Acquisition Corps and the purpose of this research, it was included. If the requirement listed in the row was identified in the guide for that DAWIA level as a requirement for certification, either as a core certification or a core plus, it is indicated with a check mark. If the requirement in the guide only partially satisfied the requirement or it provided an option that did not require the officer to fully complete the requirement, then it is indicated with the letter (P). Lastly, if there is neither a check mark nor a letter (P), then the requirement is not required as per the guide for that career field. The purpose of this data table is to aid in identifying certain career fields that either never require an officer to obtain business credits or require them late in the DAWIA certification process or as an optional requirement as part of a core plus certification.

As you can see from Table 3, the only career field that requires 24 business-credit hours within the core certification standard is contracting (CON). The business financial management (BUS-FM), facilities engineer (FE), program manager (PM) and purchasing (PUR) career fields require the 24 business-credit hour requirement as part of the core plus standards. This indicates that 64% of the acquisition career fields do not require the individual to have 24 business-credit hours as part of their DAWIA certification as either a core certification or a core plus standard, and 93% do not require it as part of a core certification standard.

Table 3. DAWIA Core Certification Standards and Core Plus Formal Education, Experience, and Business-related Credits Requirements. Adapted from DAU (2016b).

	AUD			BUS-CE			BUS-FM			CON			ENG			FE			IND		
Core Certification Standards (required for DAWIA certification)																					
DAWIA LVL	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
Associate's Degree																					
*Bachelor's Degree in **any** field of study*				✔	✔	✔				✔	✔	✔									
Bachelor's Degree in DAWIA career field	P								✔				✔	✔	✔						
Master's Degree		✔	✔																		
Business-related credits (24 or 24/12)	P	P	P	P	P	P				✔	✔	✔									
Years of experience required	1	2	3	2	4	7	2	4	6	1	2	4	1	2	4	1	2	4	1	2	4
Core Plus Development Guide (desired training, education and experience)																					
Associate's Degree							✔														
*Bachelor's Degree in **any** field of study*																			✔	✔	✔
Bachelor's Degree in DAWIA career field				✔	✔			✔								✔	✔	✔			
Master's Degree		✔				✔			✔		P	✔		✔	✔			✔			
Business-related credits (24 or 24/12)							P	✔	✔							P	P	✔	P	P	P

	IT			LCL			PM			PQM			PUR			S&TM			T&E		
Core Certification Standards (required for DAWIA certification)																					
DAWIA LVL	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*		*1*	*2*	*3*	*1*	*2*	*3*
Associate's Degree																			✔		
*Bachelor's Degree in **any** field of study*																				✔	
Bachelor's Degree in DAWIA career field																✔	✔	✔			✔
Master's Degree																					
Business-related credits (24 or 24/12)																					
Years of experience required	1	2	4	1	2	4	1	2	4	1	2	4	1	2		1	2	4	1	2	4
Core Plus Development Guide (desired training, education and experience)																					
Associate's Degree																					
*Bachelor's Degree in **any** field of study*																					
Bachelor's Degree in DAWIA career field	✔			✔	✔		✔			✔	✔										
Master's Degree		✔	✔			✔		✔				✔								✔	
Business-related credits (24 or 24/12)	P	P	P		P	P	P	P	✔	P	P	P	P	✔							

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IV. IMPACT ANALYSIS OF THE 24 BUSINESS-CREDIT HOUR REQUIREMENT ON THE ACQUISITION WORKFORCE

A. NAVY ACQUISITION WORKFORCE PERSONNEL SURVEY ANALYSIS

The purpose of the survey was to determine the subject's military and acquisition background, formal education level and degree type, experience within the acquisition community, and gather the subject's opinion on the specific AC membership requirements, specifically the 24 business-credit hour requirement. Finally, the survey captured the subject opinions on the validity and benefit of each formal business course discipline as part of the 24 business-credit hour requirement toward their acquisition position.

B. SURVEY SAMPLE SIZE DETERMINATION AND MEASURE OF VALIDITY

The adequate sample size (n) for this survey was based on the number of acquisition officers assigned to Naval Air Systems Command (NAVAIR) and Naval Sea Systems Commands (NAVSEA) that were at least DAWIA level II in the PM career field. There are a total of 459 acquisition officers assigned to NAVAIR and 329 assigned to NAVSEA that are at least DAWIA level I or higher in a career field. The majority of the acquisition officers assigned to NAVAIR and NAVSEA hold multiple DAWIA certifications in multiple career fields. Of the total number of acquisition officers assigned to NAVAIR, 29.65% hold a DAWIA certification in the PM career field, while 37% hold the same certification at NAVSEA. Since the PM career field is the most prevalent at these commands, coupled with the importance and establishment of this acquisition field, the decision was made to limit the survey to acquisition officers within the PM field in order to minimize the administrative burden on command personnel. In addition, only officers certified DAWIA level II or III within the PM career field would be surveyed, since these officers would have the most experience and history with the AC and the 24 business-credit hour requirement. A personnel data pull was done through the Fleet Management and Planning System (FLTMPS) to gather potential survey subjects in

the PM career field, DAWIA level II (AQD: AA2) and PM career field, DAWIA level III (AQD: AA3). From the data pull, 119 acquisition officer assigned to NAVAIR and NAVSEA were certified as PM, DAWIA level II and 246 as PM, DAWIA level III, for a total of 365 officers, which was the population size used for determining the survey validity.

Using Tara Yamane's sample size (Yamane, 1967) equation based on a known population size, a minimum respondent sample size of 40 and a maximum of 190 was considered adequate, based on a 95% confidence interval and margin of error between 5–15%. The minimum and maximum survey sample size was based on the acceptable margin of error. In order to minimize the burden, only 190 surveys were sent out to NAVAIR and NAVSEA personnel with an expected survey response rate of 21%, which would yield at least 40 responses to meet the minimum sample size, while maintaining the margin of error below 15%. The survey was released for two weeks and yielded a 27% response rate, resulting in 53 completed survey responses. Based on the number of subjects that responded from NAVAIR and NAVSEA, a 13% margin of error was used and found to be acceptable for the purpose of this research. As shown in Figure 29, a calculated survey sample size of 50.91 was required based on the 13% margin of error.

$$n = \frac{N}{1 + N * (e)^2}$$

N (population) = 365

e (margin of error) = 13% = .13

n (required sample size) = 50.91

Figure 29.   Taro Yamane's Formula for Determining Sample Size from a Known Population. Source: (Yamane, 1967).

1. Survey Subject Background

The survey was completed by 53 acquisition officers, ranked O-4 through O-6, as shown in Figure 30. Since 29% of the Navy Acquisition Workforce consists of officers in the rank of O-4, and since most officers in this rank would either be close to or within the window for Acquisition Corps membership, the goal was to ensure this group was captured to the maximum extent possible.
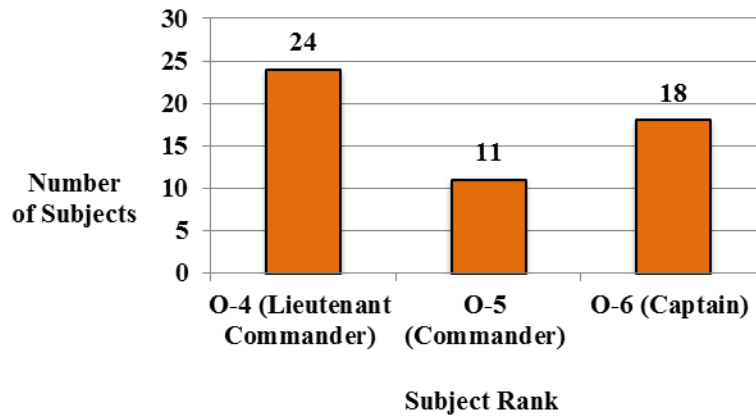

Figure 30.   Survey Subject Rank.

The majority of subjects that completed the survey have more than 20 years of service. Figure 31 provides a visual of the survey subjects' years of service.
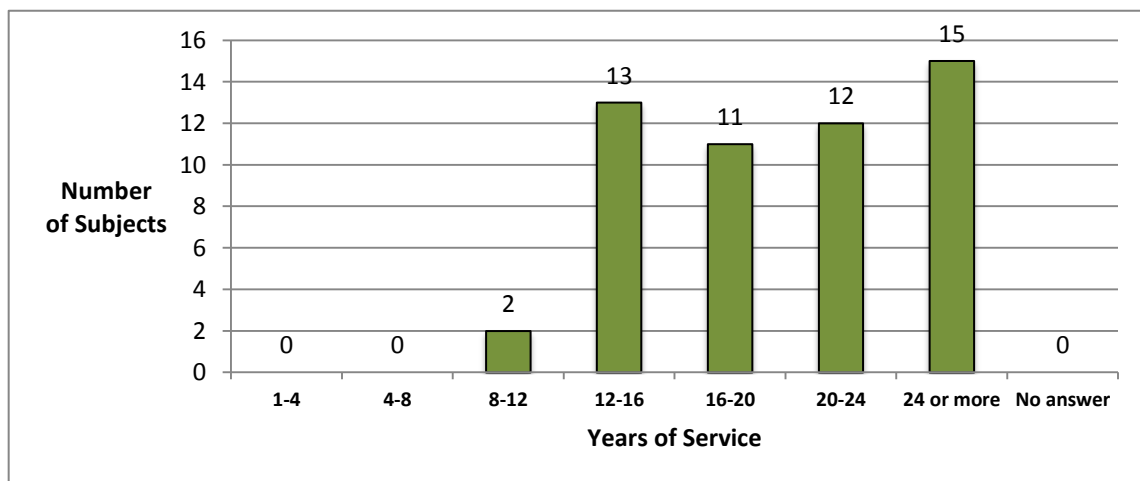

Figure 31.   Survey Subject Years of Service.

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The subjects that participated in the survey represented a wide range of designators, as shown in Figure 32. The one "other" respondent is in the aerospace experimental psychology designator. The survey was sent out to a total of two CEC officers at NAVAIR and NAVSEA, but neither participated. All CEC officers work within the contracting acquisition career field, which requires these officers to have 24 business-credit hours as part of their DAWIA level I certification, so this designator was not a primary concern for the purpose of this research.
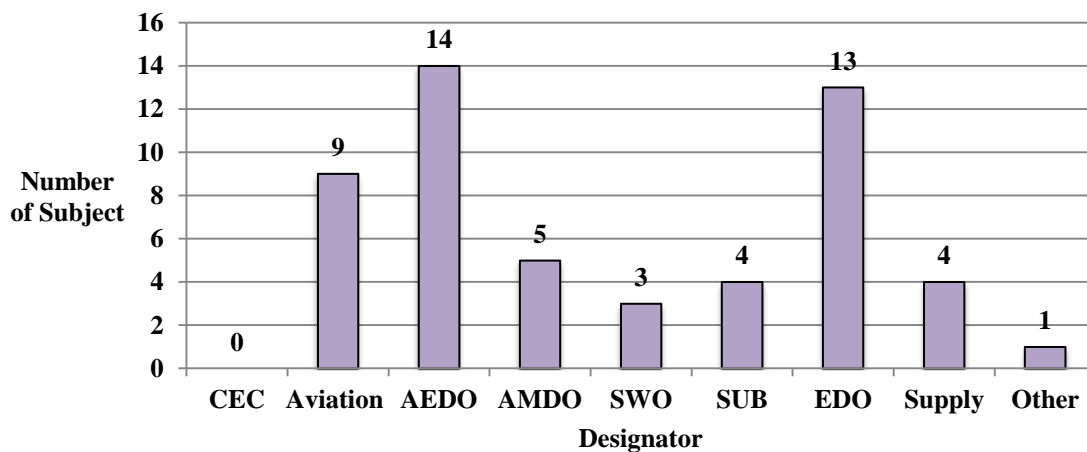

Figure 32.   Survey Subject Community Designator.

The survey subjects that participated completed at least two acquisition tours, which made up 93% of all respondents. In addition, respondents with four years of experience or more made up 85% of all respondents. This was ideal since the goal was to capture the thoughts and opinions of acquisition officers that have experience with the DAWIA certification process and the requirements of the Acquisition Corps. Any acquisition officer with at least four years of experience has most likely achieved DAWIA Level II and is either being looked at for selection into the Acquisition Corps or already a member. Figure 33 and Figure 34 present the number of subjects and their number of acquisition tours and years of experience.
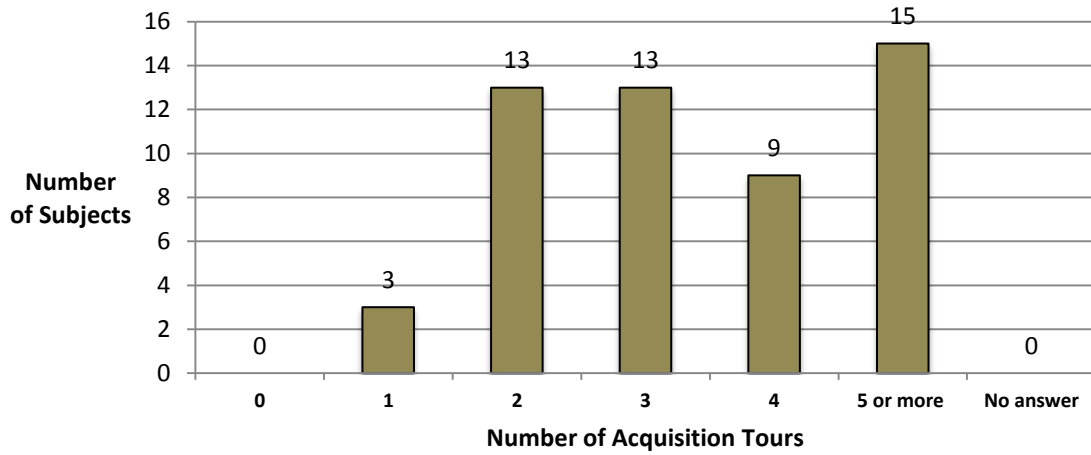
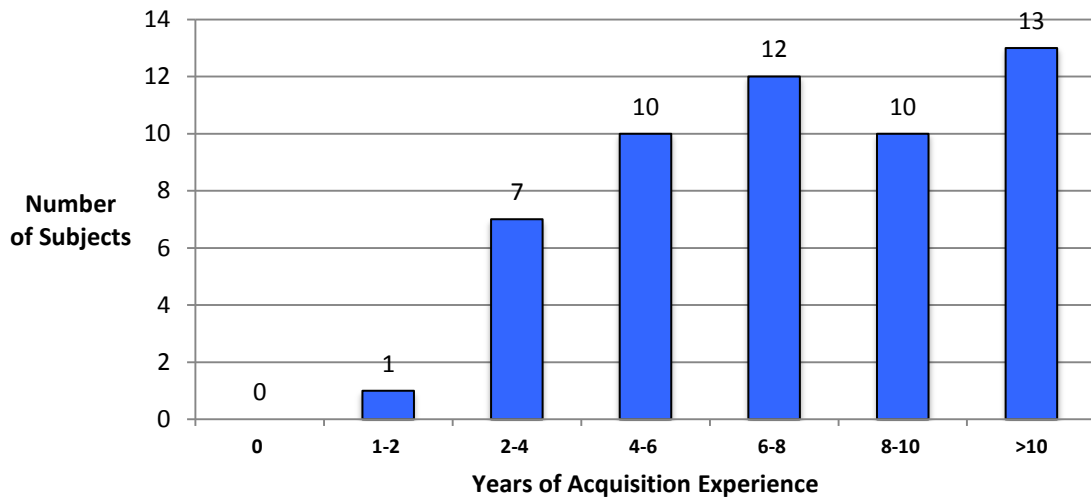Figure 33.   Survey Subject Number of Acquisition Tours

Figure 34.   Survey Subject Acquisition Experience.

Shown in Figure 35, 98% of the subjects surveyed had achieved at least DAWIA Level II in a career field. DAWIA Level II is a requirement for Acquisition Corps membership; so having survey respondents that are certified to this level provides validity to the subjects' opinion.
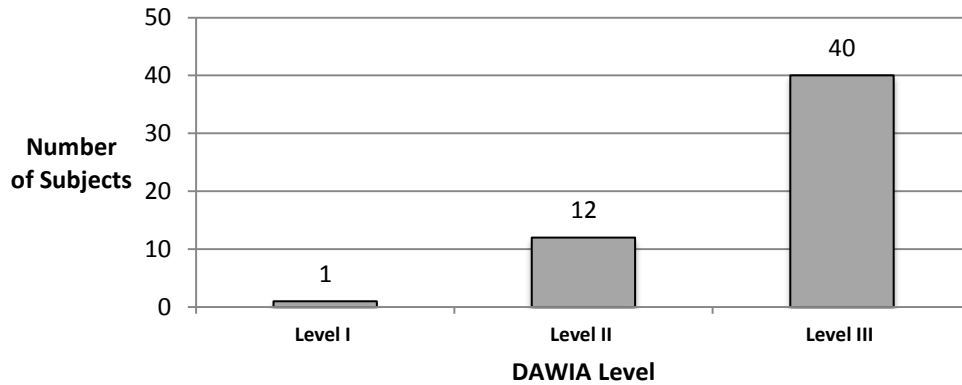
Figure 35.   Survey Subject DAWIA Level.

The majority of the survey respondents were in the PM career field at 68% of respondents as shown on Figure 36. This result was expected since the survey was only sent to subjects that were DAWIA level II or III certified in the PM career field.
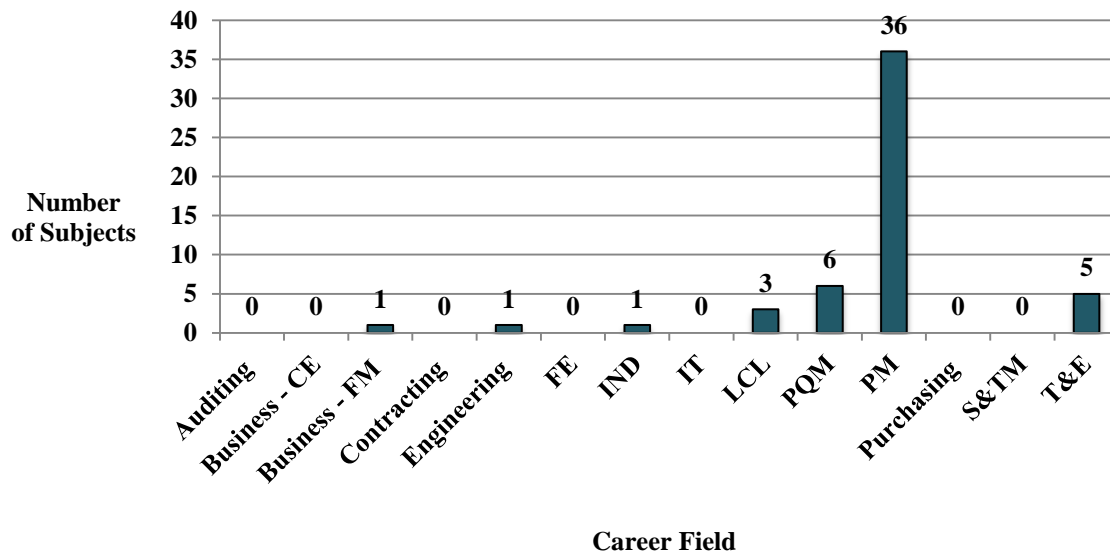

Figure 36.   Survey Subject Acquisition Career Field.

The majority of subjects that responded to the survey had a Master's degree as shown on Figure 37. Of the 53 survey respondents, 96% had at least a master's degree or higher, while every subject had at least a bachelor's degree.
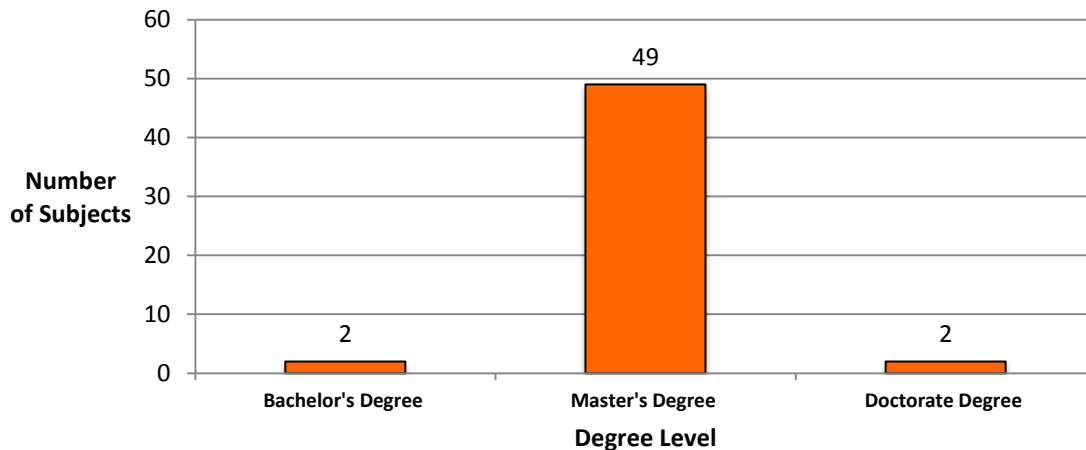
Figure 37.   Survey Subject Formal Education Level.

The survey subjects' bachelor's degree (undergraduate) source was important to this research, since the purpose is to determine how many subjects in the Acquisition Corps are not getting business-level credit hours as part of their undergraduate degree program. The results of the survey shown in Figure 38 show a fairly even distribution of personnel receiving their degree from the Naval Academy, Reserve Officers' Training Corps (ROTC), and private universities. The one respondent that selected "other" received a bachelor's degree from the University of Phoenix, which would be considered a private university. In addition to the importance of undergraduate degree source, it was also important to determine the subjects' undergraduate degree types, as shown in Figure 39. Of the respondents, 85% had earned Bachelor of Science (BS) degrees, while only 4% had earned Bachelor of Business Administration (BBA). The goal was to survey subjects with science, technology, engineering, and mathematics (STEM) degree types in order to measure the impact of the 24 business-credit hour requirement toward subjects with no business courses built into their formal education programs. Subjects that held undergraduate and postgraduate degree types science-related fields of study provided subjects with STEM education backgrounds.
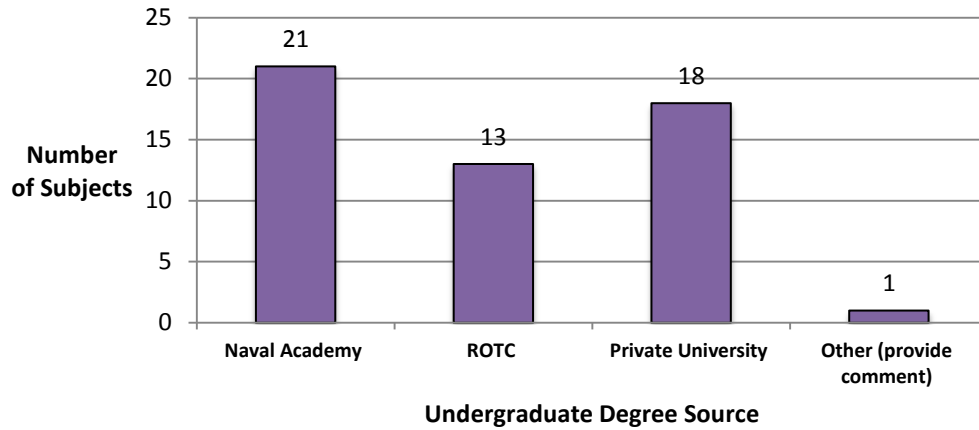
Figure 38.   Survey Subject Bachelor's Degree Source.
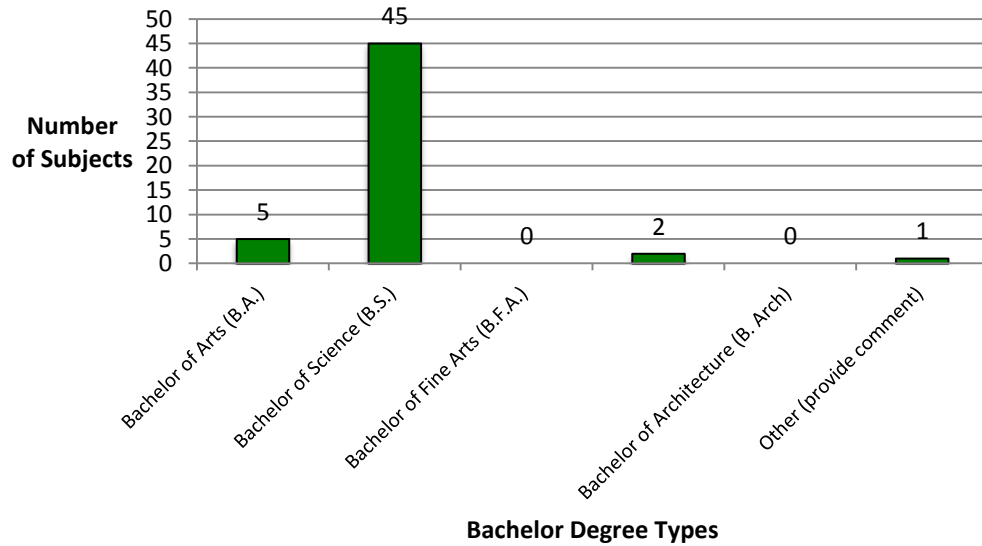
Figure 39.   Survey Subject Bachelor's Degree Type.

The survey subjects' master's degree (postgraduate) source and type of degree, shown in Figure 40 and 41, are just as important as the survey respondent data from the undergraduate degree. Of the 51 respondents that had a master's degree, 45% earned their degree from the Naval Postgraduate School, and 49% earned their degree from a private university. This was nearly an even split, which should provide a good mix of responses. Of those respondents that held a master's degree, 75% earned a Master of Science (MS),

50

and only 20% earned a Master of Business Administration (MBA). This was a significant increase in the number of subjects that had earned a degree in business as part of their undergraduate program compared to their postgraduate program.
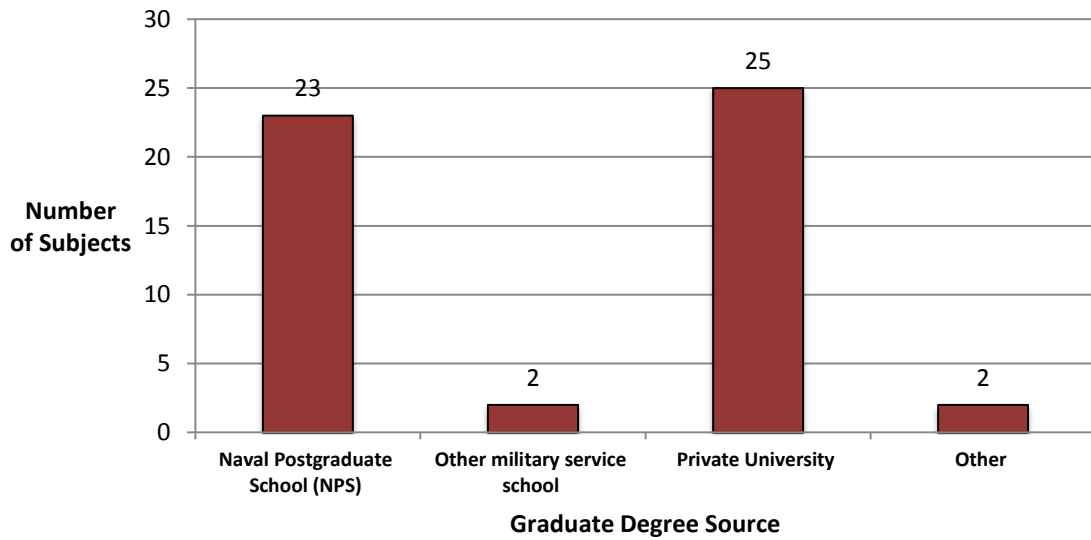

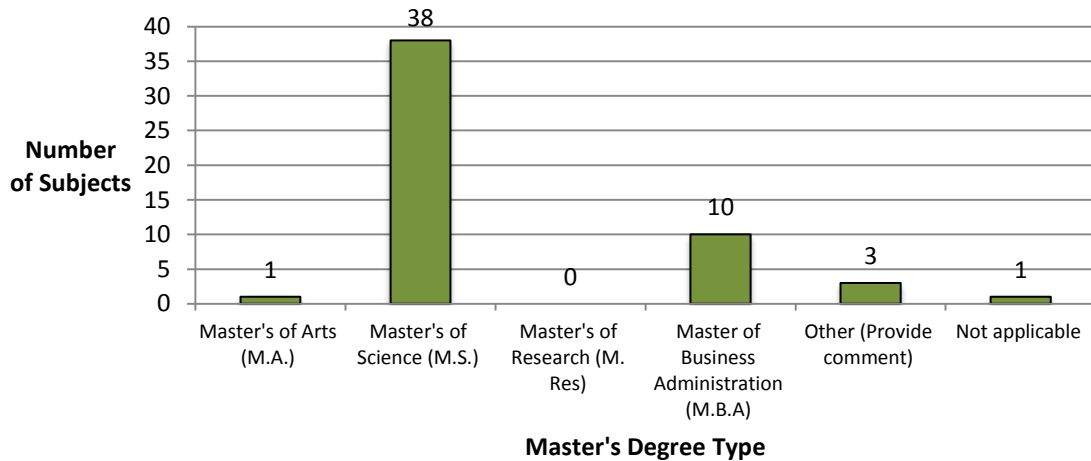Figure 40.   Survey Subject Master's Degree Source.

Figure 41.   Survey Subject Master's Degree Type.

The subjects that were surveyed were asked if they were members of the Acquisition Corps. As shown in Figure 42, 87% of the subjects surveyed were members of the Acquisition Corps, while 13% were not members. The preference was to capture a sample of acquisition officers that had experience with gaining membership into the Acquisition Corps. Whether they were successful in becoming members did not influence the validity of this research.
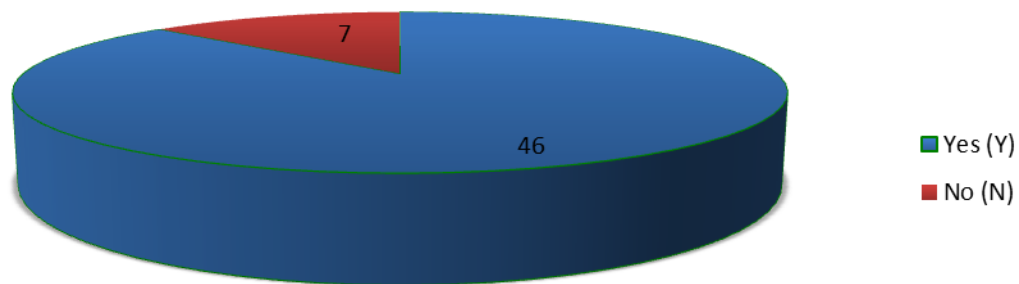
Figure 42.   Survey Subjects That Are Acquisition Corps Members.

Several community designators require that their officers become members of the Acquisition Corps (AC) prior to promotion to commander (O-5). Prior to beginning this research, the concern was that due to the 24 business-credit hours requirement for membership in the AC, officers in several technical-focused designators were having issues achieving this particular requirement, and, as a result, were failing to select for the AC and failing to select for promotion within their community. From Figure 43, there is no indication that officers are having any issue promoting within the community due to the AC and the requirements that go with membership.

Figure 43.   Survey Subjects That Have Failed to Promote Due to the Acquisition Corps.
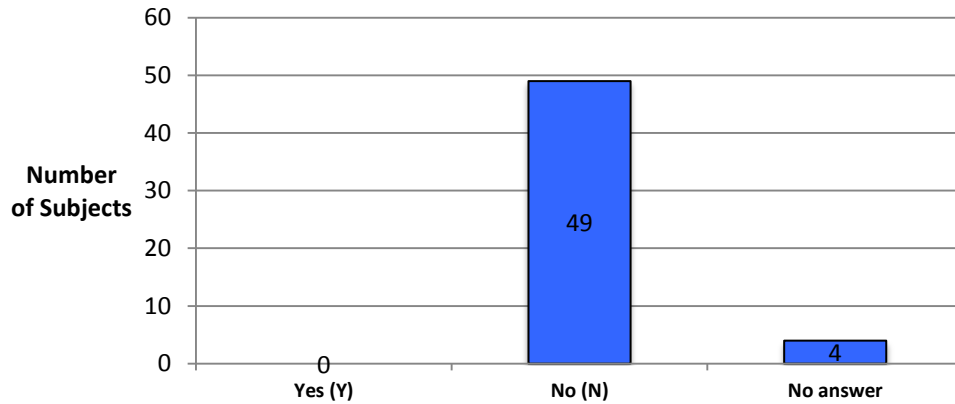
2.   Acquisition Corps Requirements Survey Question Analysis

As shown in Figure 44, survey subjects were asked which requirement of the AC they failed to meet if they were not selected. Of those respondents to the question 61% never failed to select for the AC due to any of the requirements. 43% of respondents that failed to select for the AC, did not meet the 24 business-credit hour requirement. In addition, 38% of non-selects was due to not meeting the four years of acquisition experience requirement. Of the subjects that failed to select for the AC due to the 24 business-credit hours requirements, 55% of those respondents were part of the EDO community. The subjects that failed to select for the AC due to the four years of acquisition experience requirement were primarily from the EDO community (38%) and from the AEDO community (38%).
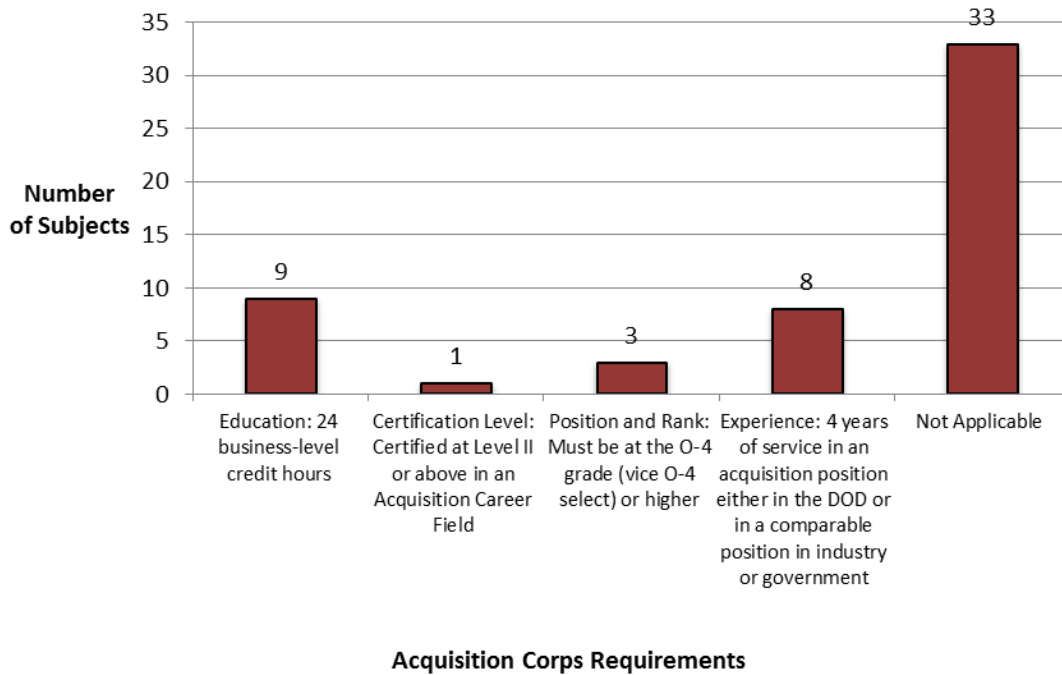
Figure 44.   Acquisition Corps Requirements That Led to a Non-Select of the
Acquisition Corps Board.

The survey subjects were asked their opinions on the validity and value of each of
the four primary AC requirements for membership. Figure 45 shows that the 24 business-
credit hours requirement was the only requirement to be nearly split between those that
favored (somewhat or strongly favored) and those that opposed (somewhat or strongly
opposed). Prior to conducting this survey, the expectation was that the results from this
question regarding the 24 business-credit hours requirement would be heavily skewed in
the opposing answer category. Of the 21 respondents that opposed this requirement, 33%
also failed to select for the AC because of this requirement. This question is significant
because it shows that the requirement is opposed by 40% of the sample population. Of
those that opposed the requirement, 77% had not had the requirement adversely affect
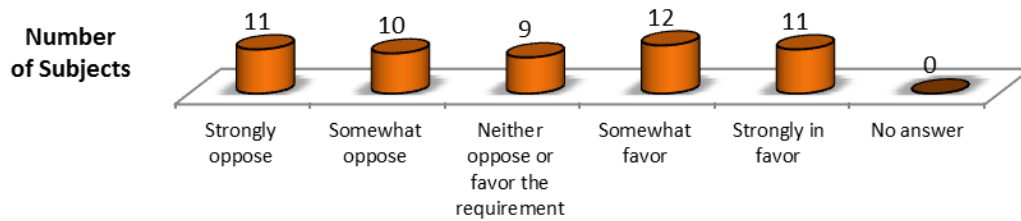their selection to the AC.

Figure 45.   Survey Subjects' Opinion on the Acquisition Corps Requirement for
24 Business-Credit Hours.

Figure 46 shows respondents' answers to the requirement for AC members to be at least DAWIA Level II in at least one acquisition career field. This requirement is favored (strongly or somewhat) by 92% of respondents, while only 4% somewhat opposed the requirement. Of the two respondents that somewhat opposed the requirement, neither failed to select for the AC due to this requirement.
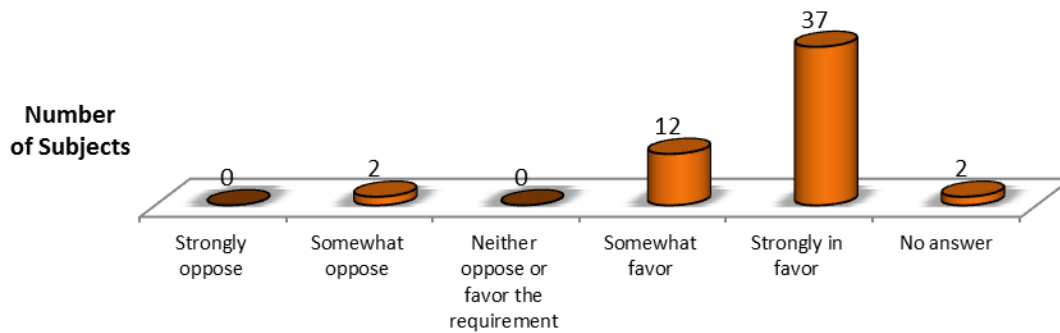
Figure 46.   Survey Subjects' Opinion on the Acquisition Corps Requirement for
Certification at DAWIA Level II or Above.

The respondents' opinion on the AC requirement to be at the O-4 pay grade or higher for membership is shown in Figure 47. Of respondents that answered, 71% favored (strongly or somewhat) this requirement, while 13% opposed (strongly or somewhat), and 13% had no opinion. Of the seven respondents that opposed the requirement, only one failed to select for the AC due to this requirement.

Figure 47. Survey Subjects' Opinion on the Acquisition Corps Requirement for
Pay Grade O-4 or Above.

In Figure 48, the respondents' answers are shown regarding their opinion on the requirement for AC members to have at least four years of acquisition experience. 85% of respondents were in favor (strongly or somewhat) of this requirement, while 6% were opposed to the requirement. 10% of respondents had no opinion. Of the 3 respondents that opposed the requirement, one failed to select for the AC because of this requirement.
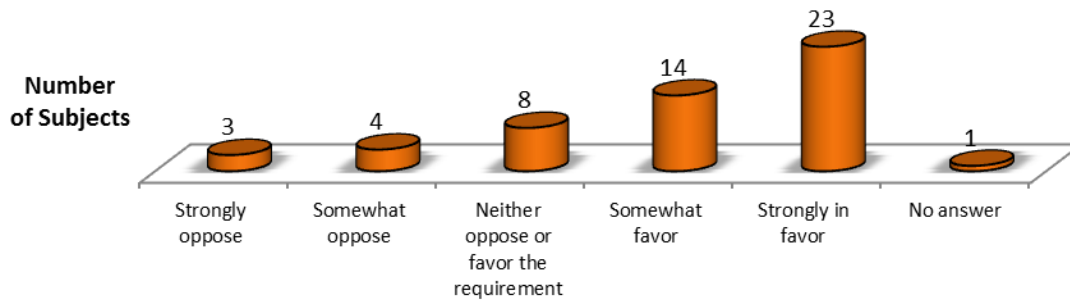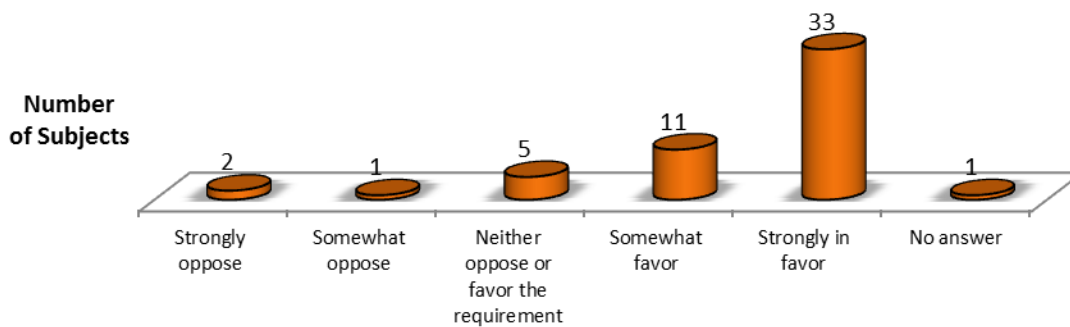

Figure 48. Survey Subjects' Opinion on the Acquisition Corps Requirement for
Four Years of Acquisition Experience.

Survey respondents were asked how many years of commissioned service they had when they became a member of the AC. Figure 49 shows the responses for each year of service category. Based on years of service corresponding to officer ranks in Figure 27, Navy Officer Acquisition Career Path, and using the respondents' answers in Figure 49, 6% of acquisition officers select for the AC at the rank of lieutenant (O-3), 62% at the rank of lieutenant commander (O-4), and 32% at the rank of commander (O-5). Based on the

responses to this question, the average number of years of commissioned service when an acquisition officer selects for the AC is 13.45 years of service. An officer at 13.45 years of service would be a senior O-4 and within a year of the O-5 selection board.

Figure 49.   Number of Years of Commissioned Service When Survey Subject
Became a Member of the Acquisition Corps.

3.   Business-Level Credit Hours Requirement Survey Results Analysis

This section provided survey response analysis specifically on the 24 business-credit hours requirement for membership in the AC. Figure 50 reflects the means by which the respondent earned the 24 business-credit hours requirement. Of the 53 survey respondents, 59% obtained the required 24 business-credit hours from either their undergraduate degree program, postgraduate degree program, or a combination of the two. 24% of the respondents were able to use the "24/12 rule," which allows acquisition officers to satisfy the 24 business-credit hours requirement by having at least 24 credit hours in their acquisition career field and at least 12 credit hours in the designated business disciplines or the training equivalent. Only 3% of respondents utilized college level examination program (CLEP) and/or defense activity for non-traditional education support (DANTES) exams to satisfy the requirement. CLEP and DANTES exams are considered equivalent to accredited education and can be used to satisfy the 24 business-credit hour requirement. The survey did not allow participants to comment for this

question, so it is unknown how the four respondents obtained the requirement by other means. It is also unknown how one respondent received a waiver for the requirement.
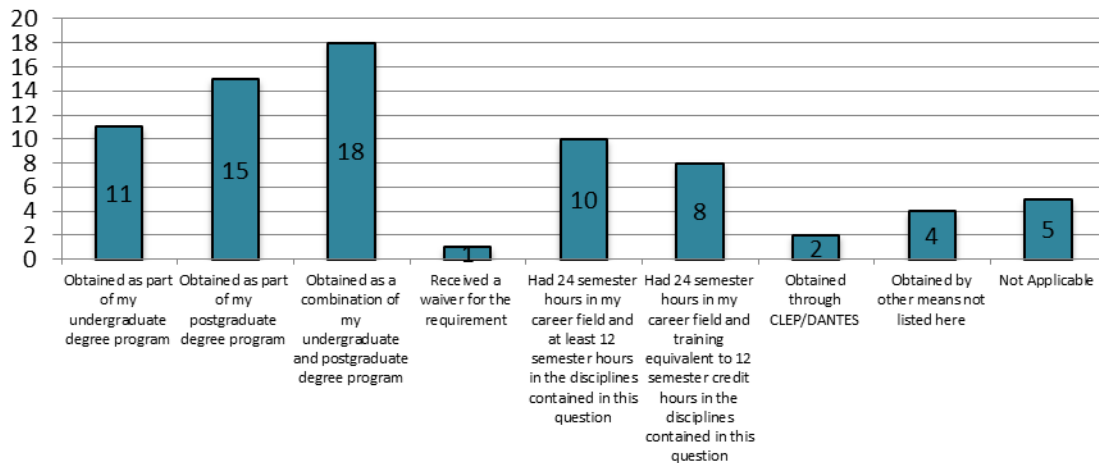
Figure 50.   How Survey Subjects Met the 24 Business-Credit Hours Requirement.

Survey subjects were asked how long it took to remedy their deficient business-level credit hours, if applicable, in order to meet the requirement. The responses for this question are represented in Figure 51. This question was only applicable to 12 respondents. Of those 12, 25% remedied the deficiency in 36 months or more, 25% took 24 months, 25% took 18 months, and the remaining 25% took less than 18 months.
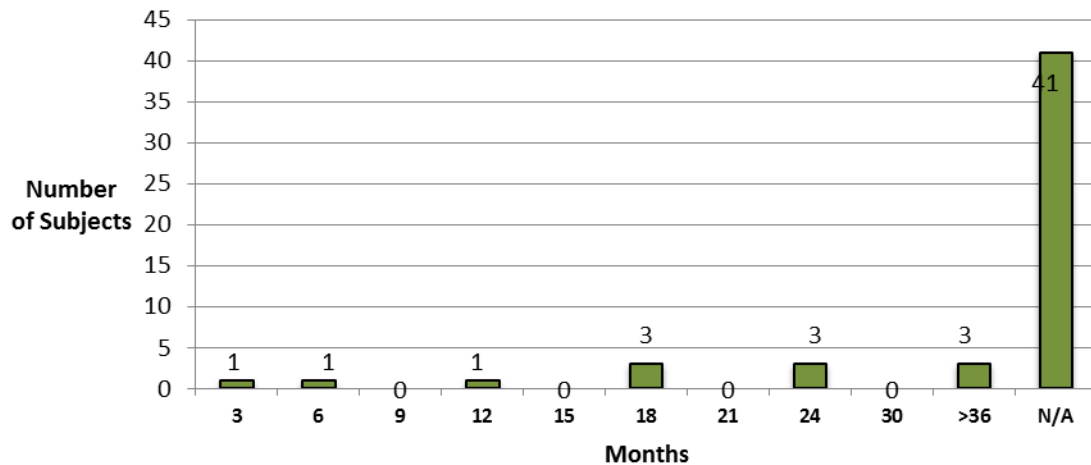
Figure 51.   Length of Time It Took Survey Subjects to Obtain the Necessary 24
Business-Credit Hours if They Did Not Originally Meet the
Requirement.

The survey subjects were asked to provide the number of business credit hours they were deficient from meeting the 24 business-credit hours requirement. This applied to 12 respondents. Only one respondent was deficient the full 24 credit hours as show on Figure 52. 42% of respondents were only deficient by 3–6 credits hours, which could be corrected in one semester; while 50% of respondents were deficient by 9–15 credit hours, which could take two semesters to obtain.

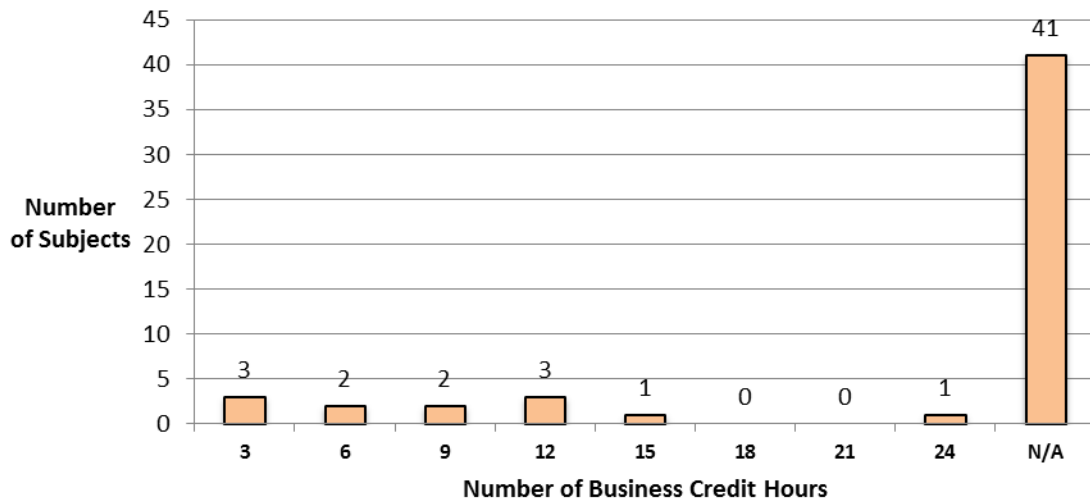Figure 52.   Number of Business Credit Hours the Subject Was Deficient.

Survey subjects that used CLEP/DANTES exams to meet the 24 business-credit hours requirement were asked to provide the number of CLEP/DANTES exams that they took toward meeting this requirement. 92% of respondents never took a CLEP or DANTES exam toward meeting this requirement, while 8% took at least two CLEP or DANTES exams as show in Figure 53. Both respondents that took seven or more CLEP/DANTES exams are in the program management career field and felt that none of the business education disciplines were useful in their acquisition positions, with the exception of contracts and accounting, which will be further discussed later in this research paper.
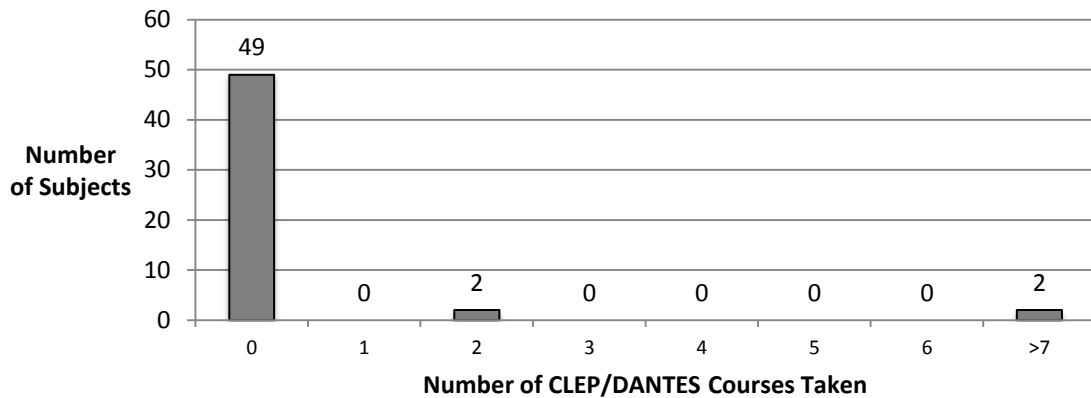
Figure 53.   Number of CLEP/DANTES Exams Taken toward Meeting the 24
Business-Credit Hours Requirement.

Survey subjects were asked to select the business-level education disciplines that they felt were useful in the acquisition positions that they served in with the results shown in Figure 54. Of the 53 respondents, 81% felt that formal education in organization and management was useful. Of these 43 respondents that felt formal education in organization and management was useful, 72% were officers in the PM career field. The second most useful formal business education discipline was contracting, which 66% of respondents felt was useful in their acquisition positions. The least useful business disciplines were marketing at 13%, purchasing at 19%, and law at 21%.
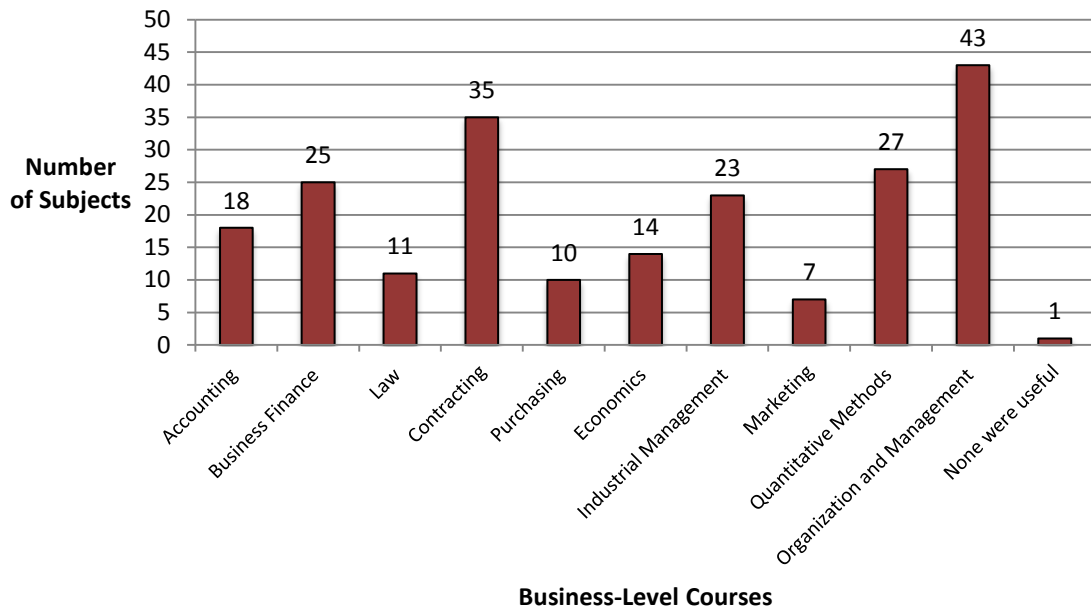
Figure 54.   Business-level Level Courses That Survey Subjects Felt Were Useful
in Their Various Acquisition Positions.

The following figures provide a graphic representation of survey subject responses when asked how helpful formal education in each of the 10 business disciplines (accounting, business finance, law, contracting, purchasing, economics, industrial management, marketing, quantitative methods, organization and management) was in their various acquisition positions. The original purpose of this data collection was to determine if there are some business disciplines that have no usefulness for the average acquisition officer. This data provides a broad picture of which disciplines are more useful than others, but it does not go deep enough to determine which acquisition career fields benefit most or least from certain business disciplines. By tailoring a formal business education plan that is applicable to each career field would provide greater efficiency and increased benefit to officers within those career fields.. Figure 55 through Figure 64 display each formal education business discipline. Of the 10 disciplines, the most helpful to acquisition officers in general were organization and management at 90.57%, quantitative methods at 77.35%, and industrial management at 64.15%. The least helpful business disciplines were economics at 30.19%, marketing at 28.30%, and law at 20.75%.

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Figure 55.   Survey Subjects' Response to How Formal Education in Accounting
Has Helped in Their Various Acquisition Position(s).

Figure 56.   Survey Subjects' Response to How Formal Education in Business
Finance Has Helped in Their Various Acquisition Position(s).

Figure 57.   Survey Subjects' Response to How Formal Education in Law Has
Helped in Their Various Acquisition Position(s).

Figure 58.   Survey Subjects' Response to How Formal Education in Contracting
Has Helped in Their Various Acquisition Position(s).

Figure 59.   Survey Subjects' Response to How Formal Education in Purchasing
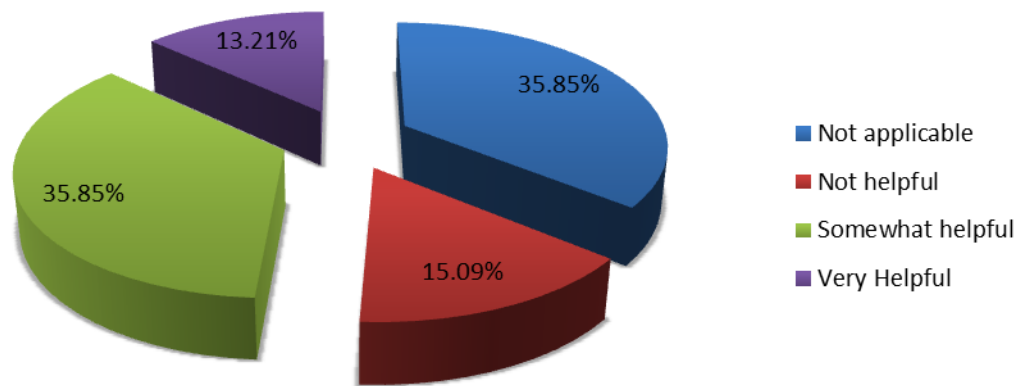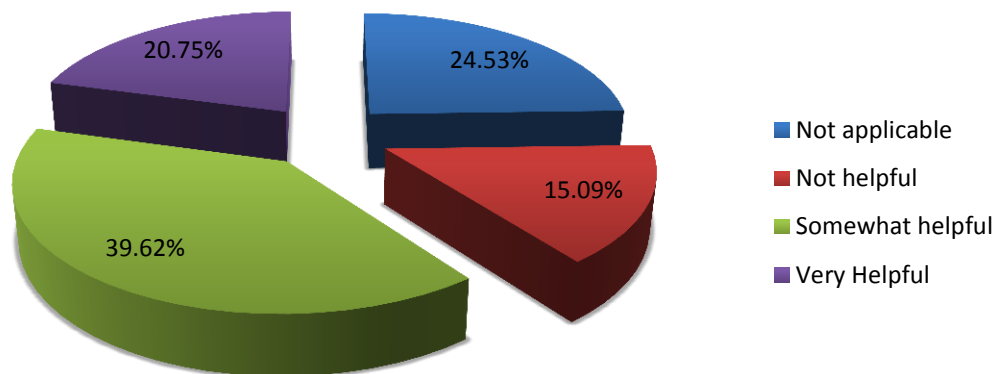Has Helped in Their Various Acquisition Position(s).

Figure 60.   Survey Subjects' Response to How Formal Education in Economics
Has Helped in Their Various Acquisition Position(s).

Figure 61.   Survey Subjects' Response to How Formal Education in Industrial
Management Has Helped in Their Various Acquisition Position(s).

Figure 62.   Survey Subjects' Response to How Formal Education in Marketing
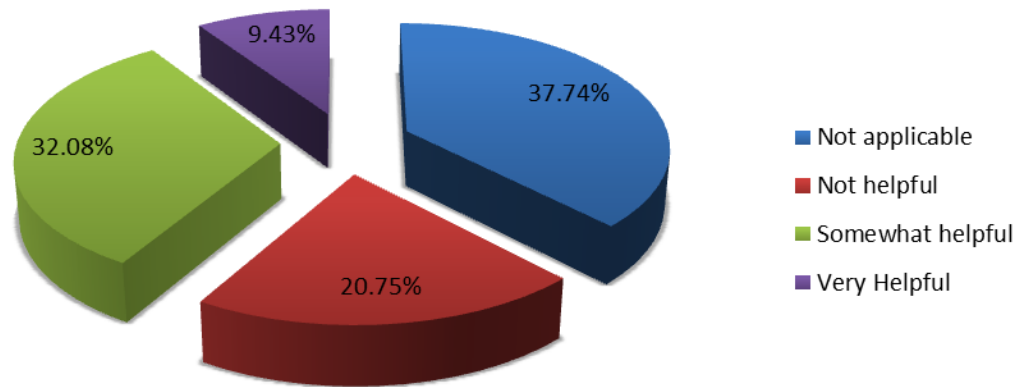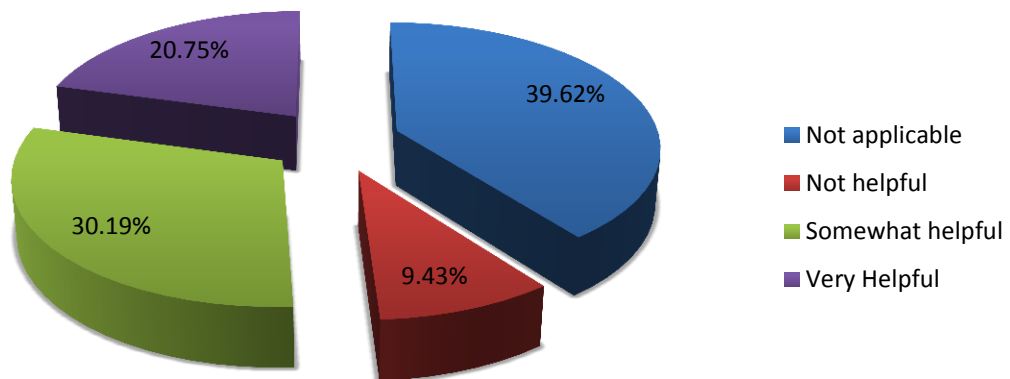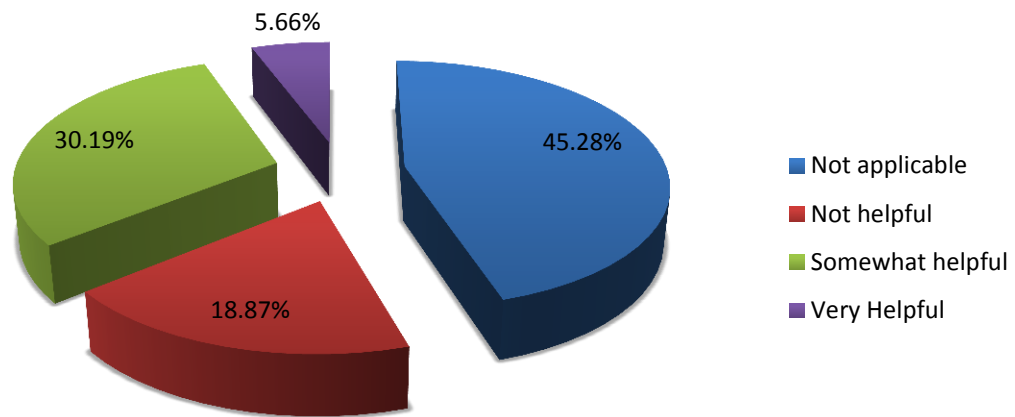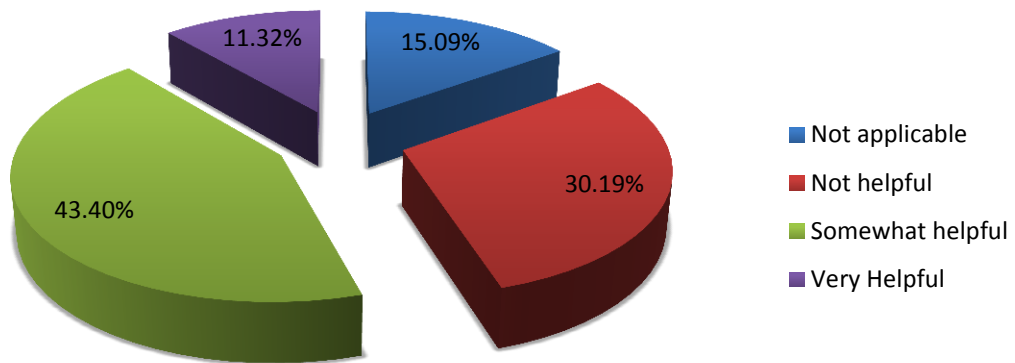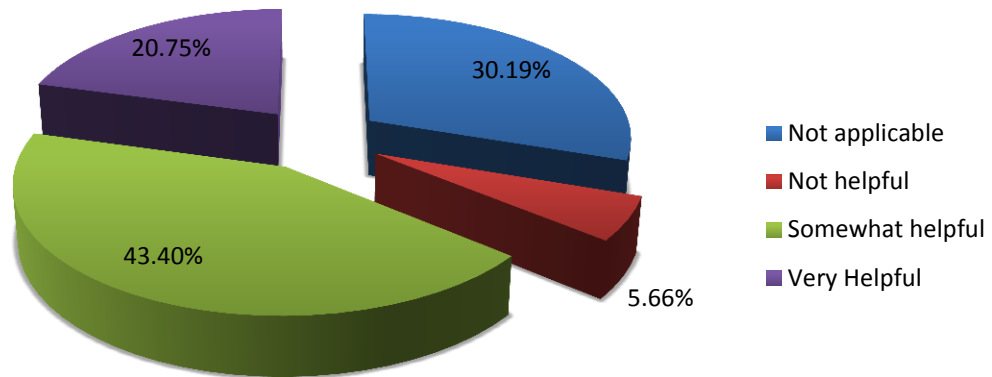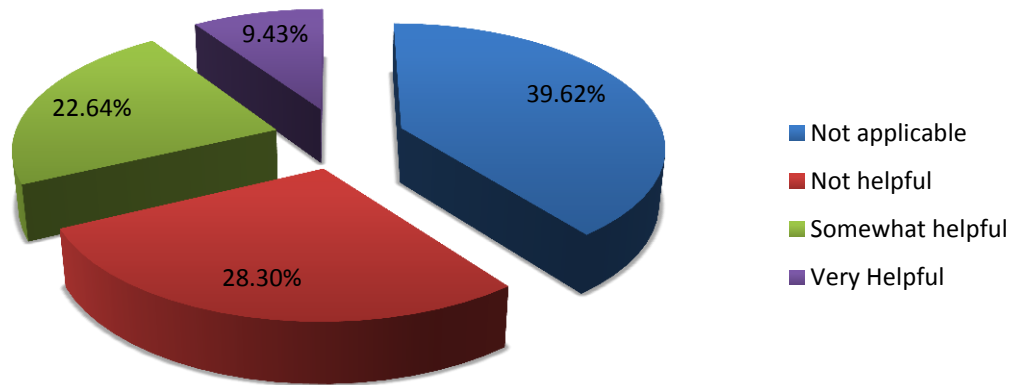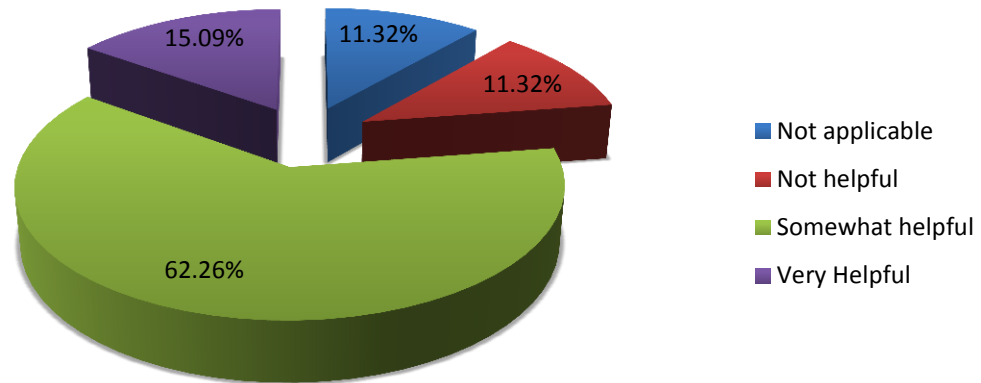Has Helped in Their Various Acquisition Position(s).

Figure 63. Survey Subjects' Response to How Formal Education in Quantitative Methods Has Helped in Their Various Acquisition Position(s).
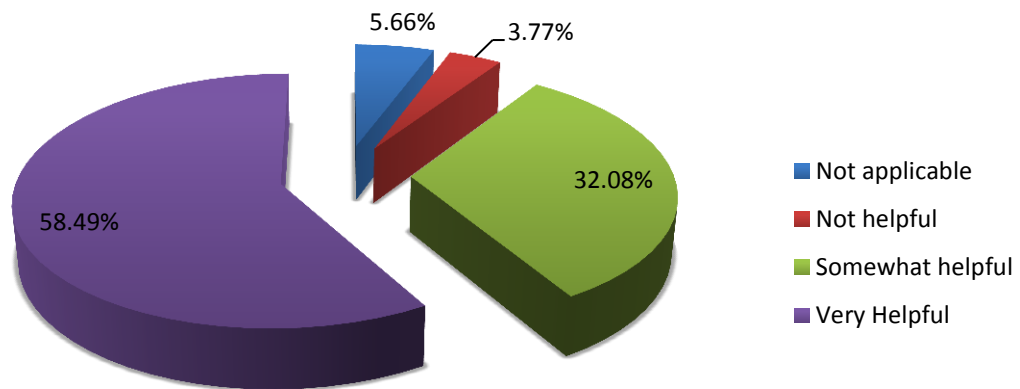

Figure 64. Survey Subjects' Response to How Formal Education in Organization and Management Has Helped in Their Various Acquisition Position(s).

4. Acquisition Professional Development Survey Results Analysis

Survey subjects were asked which element(s) in regard to education, skill and/or experience were essential to their success as an acquisition officer. As shown in Figure 65, 95% of those surveyed felt that leadership skills were essential to their success as an acquisition officer. The least essential aspect was their Science, Technical, Engineering, and Mathematics (STEM) education at 32%. 38% of respondents felt that business and/or management education was essential to their success.
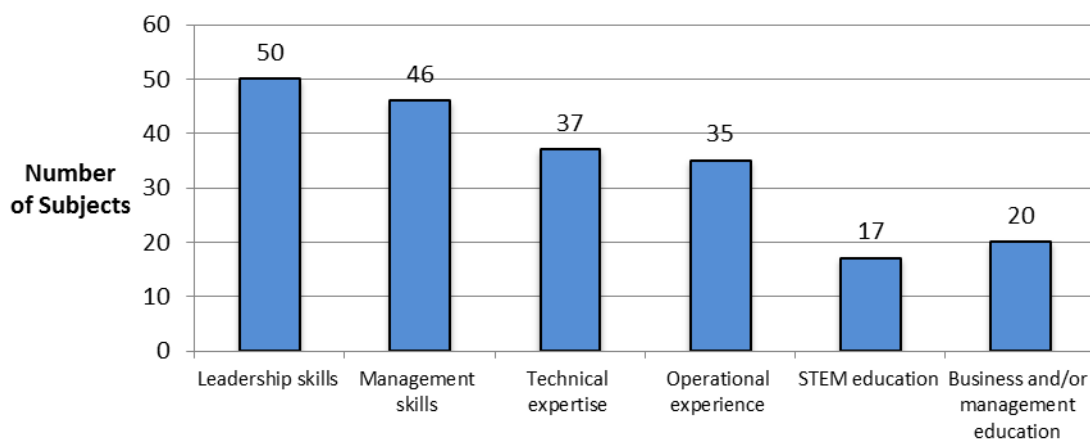
Figure 65.   Survey Subjects' Response to Which Education, Skill, and/or
Experience Area Is Essential to the Success of an Acquisition Officer.

Finally, survey subjects were asked their opinion on the best way to develop a competent acquisition professional. An overwhelming 91% of respondents felt that on-the-job training was the best way to develop a competent acquisition professional, as shown in Figure 66. Of interest, Figure 48 collected the survey subject's opinion regarding the 4-year acquisition experience requirement for AC membership, 85% of respondents were in favor of the experience requirement. This data from Figure 48 and Figure 66, shows that acquisition officers view acquisition experience/OJT as the best way to develop a competent acquisition professional. This opinion differs from that of senior Navy acquisition leaders that feel STEM education and technical experience are most important. When survey respondents were asked, none felt that

business/management or STEM education were the best way to develop a competent acquisition professional.

Figure 66.   Survey Subjects' Response to the Best Way to Develop a Competent Acquisition Professional.

C.   NAVY ACQUISITION CORPS FY17 SELECTION BOARD STATISTICS

The most recent Fiscal Year (FY) 2017 Acquisition Corps (AC) selection board screened 281 Navy acquisition officer for membership. The board resulted in an 85.77% selection rate and a 14.23% non-selection rate, as shown in Figure 67.
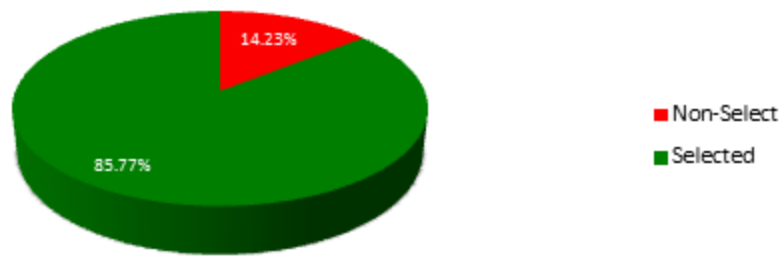
Figure 67.   FY17 Navy Acquisition Corps Board Selection Rate.

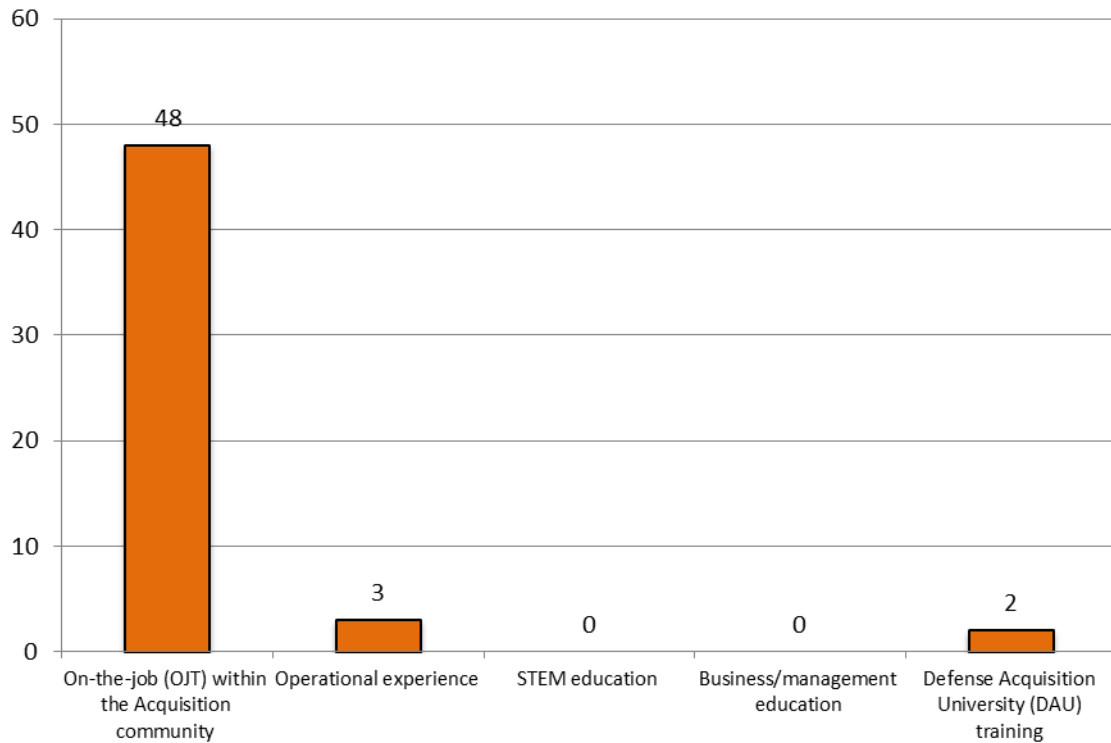Of the 281 acquisition officers that were screened during the FY17 Acquisition Corps selection board, 40 officers were not selected due to not meeting one or more of the AC membership requirements, as shown in Figure 68. Nearly half (46.66%) of the acquisition officers that failed to select did not have the necessary 24 business-credit hours, and 40% failed to select because they did not meet the four years of acquisition experience requirement. The remaining portion (13.33%) did not select because they did not have at least DAWIA Level II in one career field.
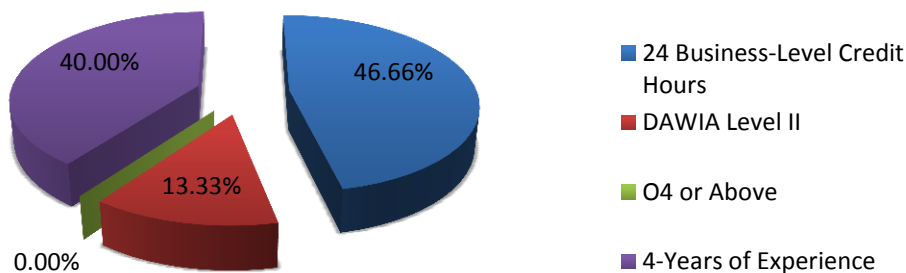
Figure 68.   FY17 Acquisition Corps Board Reasons for Non-Select.

The distribution of designators screened during the FY17 AC Board is shown in Figure 69. The majority of designators screened during this board were supply, engineering duty officers (EDO), civil engineer corps (CEC), submarine warfare, aviation engineering duty officer (AEDO), and aviation maintenance duty officers (AMDO). The minority of designators screened during this board were pilot, naval flight officers (NFO),

special duty officers (SDO), limited duty officers (LDO), special warfare, explosive ordnance disposal (EOD), surface warfare officer (SWO), human resources (HR), and medical corps (MED) making up 7.84% of the officers screened.
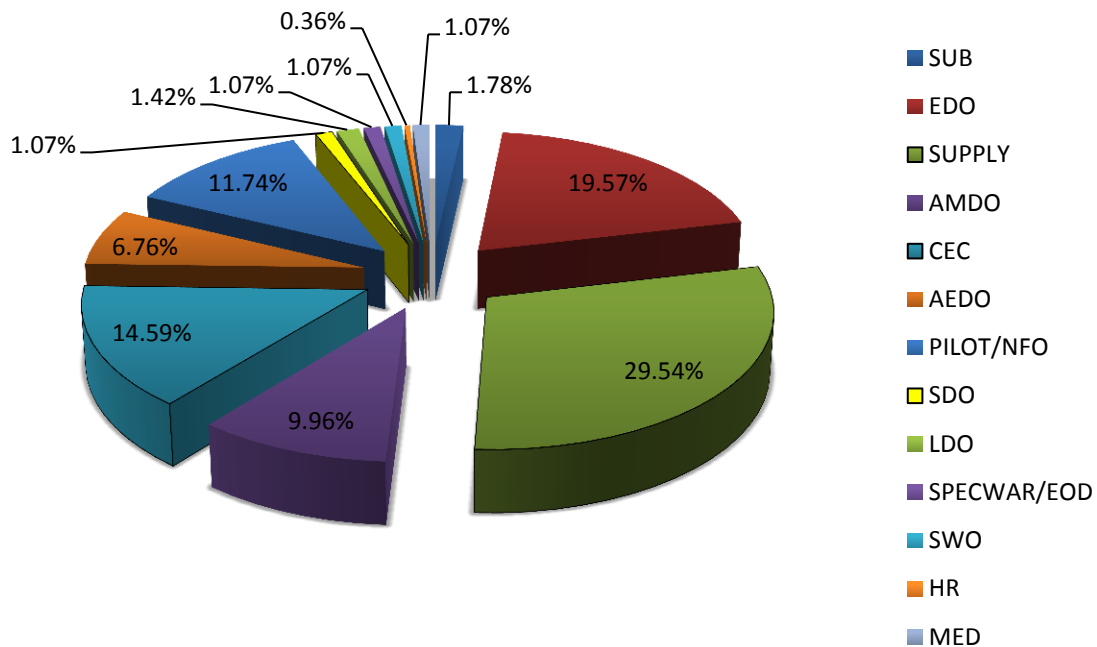
Figure 69.   FY17 Acquisition Corps Board Designator Distribution.

The FY17 AC selection percentage by designator is shown in Figure 70. Of the major designators that were screened on this board, the EDO selection rate of 73% stands out as a concern since it is below the overall selection rate of 85.77% and it makes up 19.57% of the designators screened. The lowest selection percentage (40%) for submarine warfare (SUB) is considered an anomaly since this designator only made up 1.78% of those screened on this board. This is also the case with the medical corps (MED), surface warfare officer (SWO), and special duty officers (SDO) that resulted in selection rates of 67% each.
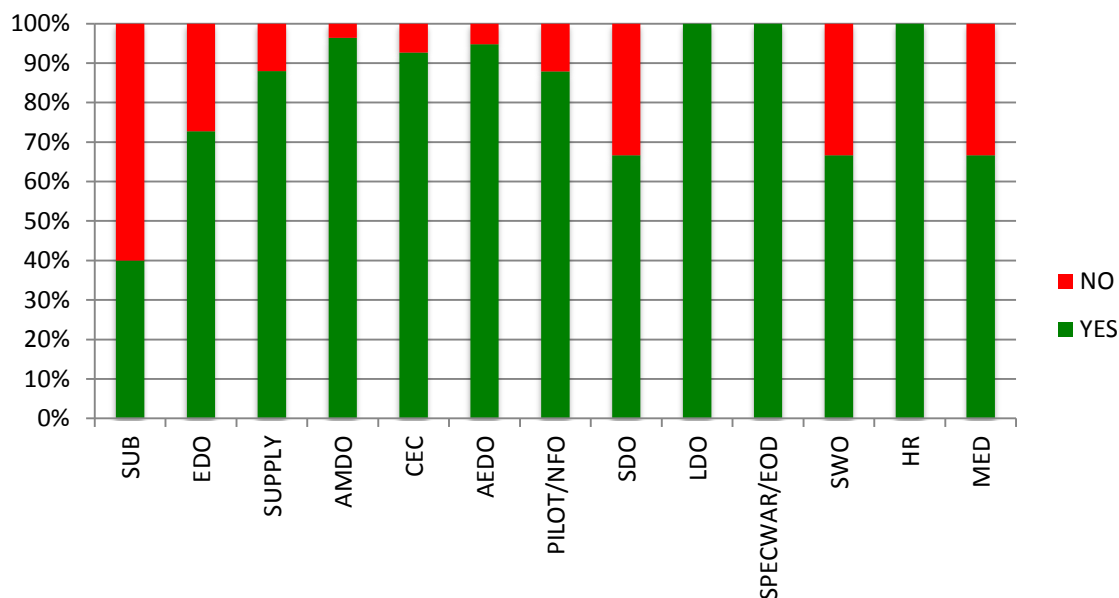
Figure 70.   FY17 Acquisition Corps Board Selection Rate by Designator.

The requirement achievement percentage is a measurement used for Figure 71, 72, 73, and 74 to represent the portion of officers within each designator that have met the requirement for that particular figure. The first requirement reviewed is the 24 business-credit hour requirement in Figure 71. When analyzing thesis results, the major designators (>5% of the board composition) that have a requirement achievement percentage below the overall AC selection rate of 85.77% are of interest. The only major designator of concern is EDO (75%). This result is not surprising since officers within the EDO designator mostly have STEM degree types and do not identify the requirement to have business credits in the majority of their common career fields. In addition, the minor designators (<5% of the board composition) SDO (67%), and medical (67%) were below the overall AC selection rate, but were not considered significant since they make up a very small number (<7) of officers screened during this board.

Figure 71.   FY17 Acquisition Corps Board Select/Non-Select by Designator Due
to the 24 Business-Credit Hours Requirement.

Analysis of Figure 72 shows the requirement achievement percentage of designators in meeting the DAWIA Level II requirement for membership into the AC. The only designator of concern in this figure is submarine warfare at 80%. The submarine warfare designator had 5 officers available for selection on this board, so this percentage is insignificant. This result regarding the submarine community is expected, since this community does not have an acquisition experience tour identified on its career path until year 21 of service.
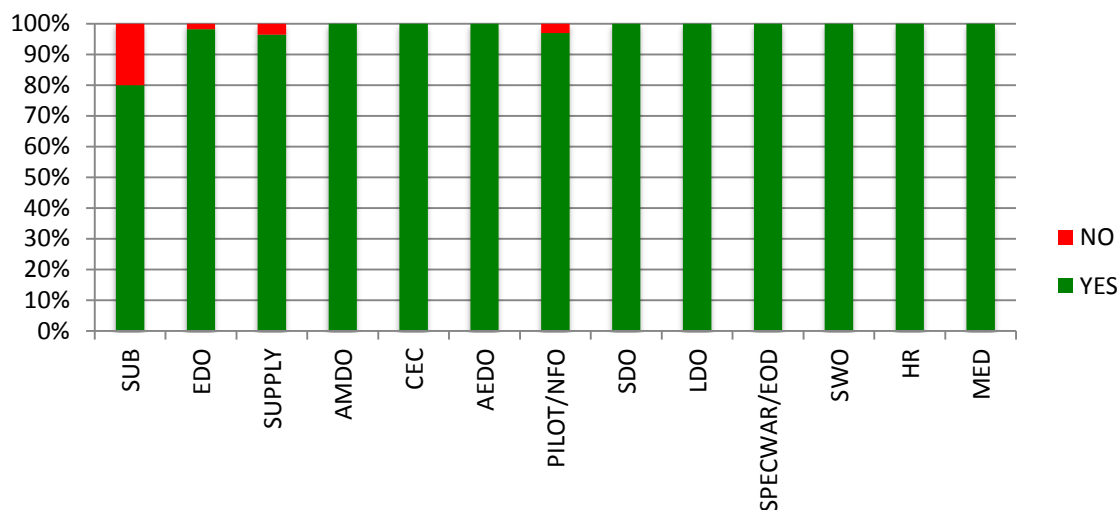
Figure 72.   FY17 Acquisition Corps Board Select/Non-Select by Designator due
to DAWIA Level II or Above Requirement.

As shown in Figure 73, no acquisition officer failed to select for the Acquisition Corps due to the O-4 or above rank requirement. This is most likely due to the fact that the board will not screen any officers below the rank of O-4.
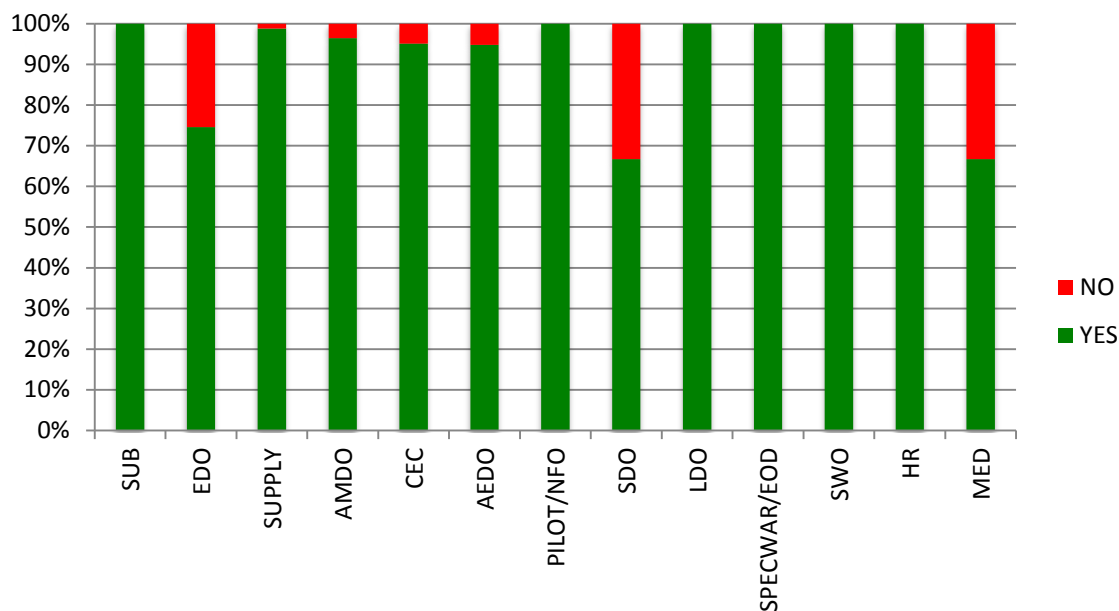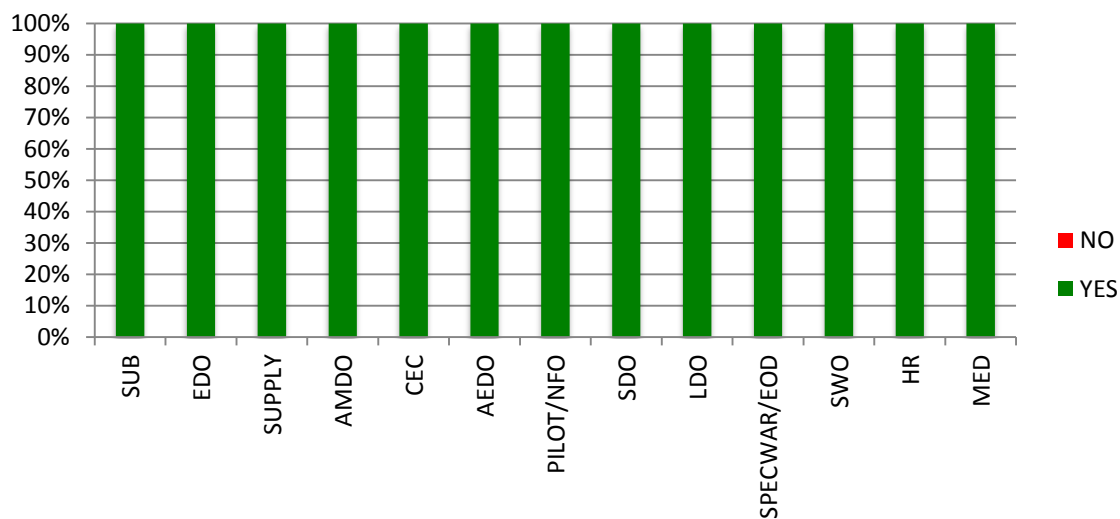

Figure 73.   FY17 Acquisition Corps Board Select/Non-Select by Designator Due
to the O-4 or Above Rank Requirement.

Analysis of Figure 74 shows the requirement achievement percentage of designators in meeting the 4 years of acquisition experience requirement for membership into the AC. The SWO (66%) and SUB (60%) designators are the only two that are below the overall AC selection percentage of 85.77%. These are also the only two designators that do not have a designated acquisition experience tour built into their career path prior to O-4, so it is not a surprise that these two designators have a high non-select rate due to the acquisition experience requirement or the DAWIA level II requirement discussed in the previous paragraph.
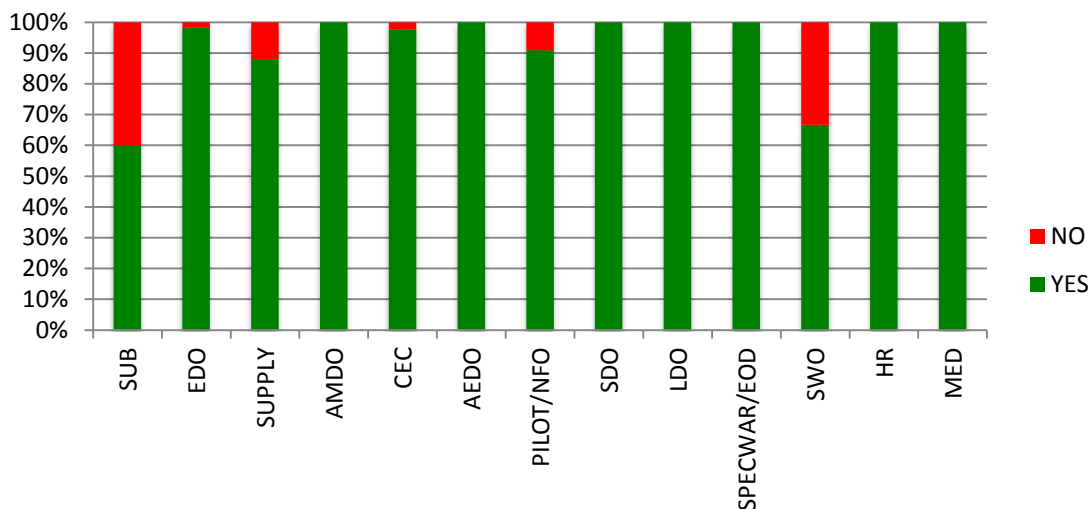
Figure 74.   FY17 Acquisition Corps Board Select/Non-Select by Designator Due to the Four Years of Acquisition Experience Requirement.

D.   RESEARCH QUESTION: WHAT IMPACT IS THIS LEGISLATION HAVING ON THE ACQUISITION WORKFORCE?

Based on the survey and FY17 AC board data, there is a measurable impact to the Acquisition Workforce in regard to meeting the requirement for membership into the AC. As shown in Figure 68, nearly half of non-selects for the AC are due to the 24 business-credit hour requirement. In regard to this requirement effecting an officer's promotion, there is no data available to support this. No promotion data was available in order to determine if an acquisition officer failed to select for promotion because he or she was not a member of the AC as a result of the 24 business-credit hour requirement.

The EDO community is most affected by the 24 business-credit hour requirement, as shown by the FY17 AC board data that shows 25% fail to select for the AC due to this requirement, while the EDO community has one of the highest number of non-critical billets transitioning to CAP and KLP billets. Furthermore, the EDO community has over 99% of their acquisition billets within three career fields, PM, PQM, and Engineering. None of these career fields require any formal business credit hours as part of any DAWIA core standard certification and only PM DAWIA Level III core plus requires the 24 business-credit hours for certification.

V. CONCLUSION AND RECOMMENDATIONS

A. SUMMARY AND CONCLUSION

After researching the history of the Acquisition Corps and the requirement for members to have at least 24 business-credits in certain business disciplines, it is clear that this requirement was originally defined as formal education required for a competent program manager (PM), which was the first career field established. For a PM, formal education in accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management are all beneficial – or, at least, the majority of them are useful. These kinds of courses will ensure that a PM in charge of a Major Defense Acquisition Program (MDAP) is fully educated and able to ensure program success regarding cost, schedule, and performance.

There is a clear impact on the EDO community. This community has the highest number of non-critical billets that convert to CAP and KLP billets at the O-5 and O-6 pay grades that must be filled by members of the AC. The three primary career fields that EDOs serve in (PM, PQM, and engineering) never identify the 24 business-credit hour requirement at any DAWIA core certification level. The EDO community consists of officers with STEM degrees, with very few having any formal business courses as part of their formal degree programs.

As highlighted by the EDO community, there is a significant disconnect across nearly all acquisition career fields in regard to the formal business education requirements for DAWIA certification and what is required for AC membership. An acquisition officer who achieves DAWIA level III in their respective career field should not be denied membership into the AC for a business-credit hour requirement that was never identified during the DAWIA certification process.

B. RECOMMENDATIONS

The Navy DACM should evaluate each career field and determine which particular formal business course disciplines are beneficial to that particular career field.

This area requires further research to analyze the position description for each career field, in addition to interviewing personnel serving in each career field and matching the required knowledge standards to the formal education requirements for that field. For example, an officer serving in the T&E career field might only require formal business education in quantitative methods and have no practical use for any of the other 10 business course requirements. An officer serving within the T&E career field would then only be required to have those particular business courses that are relevant to that career field.

If the requirement remains to have 24 business-credit hours for membership into the Acquisition Corps, this requirement should be incorporated into the DAWIA certification levels for all career fields. Every acquisition career field has a need for some flavor of formal business knowledge, and it should be required earlier in their DAWIA certification as opposed to later in their careers. Acquisition officers would benefit from having these business courses earlier in their career and avoid a potential speed bump on the road to becoming an AC member as they transition to the senior officer ranks. This is especially true for the EDO community, and changes to the DAWIA education requirements should be updated immediately.

C.   AREAS FOR FURTHER RESEARCH

The survey that was administered identified a split between acquisition officers within the PM career field regarding the validity of the 24 business-credit hour requirement. It also provided insight into how PMs value particular business disciplines that make up the 24 business-credit hours. Even though PMs are one of only a few career fields that benefit from having formal education in all 11 business disciplines, several survey subjects did not feel that formal education in marketing was helpful to their performance in their acquisition position. Additional career fields should be surveyed in order to provide recommendations to the Navy DACM on which formal business courses are beneficial to each career field at the CAP and/or KLP billet level.

Although this research was not focused on the four years of acquisition experience requirement, it is clear that this requirement has a significant impact on

acquisition officers within the SWO and submarine warfare communities. Neither of these communities has acquisition experience tours built into its career path until the mid-O-4 pay grade at the earliest, which is the same time that most acquisition officers are being screened for the AC. Although these communities are very small within the acquisition corps, research could be done to determine the impact on these designators and the acquisition billets that they serve in and thus conclude whether there is a benefit to having acquisition experience tours earlier in their career paths.

D. RESEARCH QUESTION: CAN THE U.S. NAVY BE EXEMPT FROM THIS REQUIREMENT?

This research shows no advantage for the Navy in exempting or waiving the requirement that AC Officers have at least 24 business-credit hours. The AC was created to reward and identify those officers who have reached "elite" status within their career field. Currently, no problems result from filling CAP and KLP billets with the most qualified acquisition officers. However, the 24 business-credit hour requirement is difficult for career officers to obtain since it usually requires the officer to attend additional college courses on their own time. This is the only requirement that is not already identified in the DAWIA certification standards for every career field. Even though it would benefit the Navy to reduce or eliminate the 24 business-credit hour requirement, there should be a way to achieve the original intent of the requirement while identifying and enabling acquisition officers to obtain the requirement. The Navy should tailor the formal business education requirement to each career field within the DAWIA core certification standards.

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LIST OF REFERENCES

Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN[RDA]). (2011). *Department of the Navy Defense Acquisition Workforce Improvement Act (DAWIA) operating guide*. Retrieved from http://www.secnav.navy.mil/rda/workforce/Documents/dawiaoperatingguide21dec2011forwebsite1.pdf

Assistant Secretary of the Navy for Research, Development & Acquisition (ASN[RDA]). (n.d.-a). Acquisition Corps. Retrieved from http://www.secnav.navy.mil/rda/workforce/Pages/Career%20Management/AcquisitionCorps.aspx

Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN[RDA]). (n.d.-b). Navy officers career paths. Retrieved from http://www.secnav.navy.mil/rda/workforce/Documents/navymilitaryacqusitioncareerpath.jpg

Cheney, D. (1989) *Defense Management Report to the President.* Washington, DC: U.S. Department of Defense

Defense Acquisition University (DAU). (2016a). DAWIA Core Plus overview. Retrieved from http://www.dau.mil/training/pages/index1ConstructDevPlan.aspx

Defense Acquisition University (DAU). (2016b). DAWIA Certification & Core Plus Development Guides. Retrieved from http://icatalog.dau.mil/onlinecatalog/CareerLvl.aspx

Facilities Engineering. (n.d.). Retrieved December 9, 2016, from https://acc.dau.mil/CommunityBrowser.aspx?id=17615

Israel, G. D. (n.d.). Determining sample size. Retrieved from http://www.sut.ac.th/im/data/read6.pdf

Layton, E. (2007). *The Defense Acquisition University: Training professionals for the acquisition workforce, 1992–2003.* Retrieved from http://www.dau.mil/AckerLibrary/AckerLibraryDocs/History%20Book.pdf

National Defense Authorization Act for Fiscal Year 1991, Public Law 101-510. 10 U.S.C. § 1732 (1990). Retrieved from https://www.gpo.gov/fdsys/pkg/STATUTE-104/pdf/STATUTE-104-Pg1485.pdf

RAND (2008). *The Defense Acquisition Workforce: An Analysis of Personnel Trends Relevant to Policy, 1993–2006*. Retrieved from http://www.rand.org/pubs/technical_reports/TR572.html

Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]). (1995). Acquisition career development program (DoD 5000.52-M). Retrieved from http://www.acq.osd.mil/dpap/Docs/5000-52m.pdf?trk=profile_certification_title

U.S. Congress. House Armed Service Committee (1990). *The Quality and Professionalism of the Acquisition Workforce*. 101st Cong., 2nd session. Committee Print 10.

Yamane, Taro (1967). *Elementary sampling theory*. Prentice-Hall, Englewood Cliffs, NJ.

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