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ANALYSIS OF ARMY CONTRACTING WORKFORCE COMPETENCY ASSESSMENT

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Monterey, CA; Naval Postgraduate School

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MONTEREY, CALIFORNIA

JOINT APPLIED PROJECT REPORT

ANALYSIS OF ARMY CONTRACTING WORKFORCE COMPETENCY ASSESSMENT

June 2021

By: **Jamie N. Davies**
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13. ABSTRACT (maximum 200 words)

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN CONTRACT MANAGEMENT

from the

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June 2021

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ANALYSIS OF ARMY CONTRACTING WORKFORCE COMPETENCY ASSESSMENT

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LIST OF ACRONYMS AND ABBREVIATIONS

ACC	Army Contracting Command
ACC-ORL	Army Contracting Command-Orlando
AMC	Army Materiel Command
ANS	American national standards
ANSI	American national standards institute
AWF	acquisition workforce
BtB	Back-to-Basics
CCCM	Certified Commercial Contract Manager
CCMA	Certified Contract Management Associate
CFCM	Certified Federal Contract Manager
CLP	continuous learning point
CM	Contract Management
CMBOK	Contract Management Body of Knowledge
CMMM	Contract Management Maturity Model
CMR	Contract Management Review
CMS	Contract Management System
CPCM	Certified Professional Contract Manager
CRB	Contract Review Board
DACM	Director, Acquisition Career Management Office
DAU	Defense Acquisition University
DAWIA	Defense Acquisition Workforce Improvement Act
DCMA	Defense Contract Management Agency
DoA	Department of Army
DOD	Department of Defense
DOD OIG	Department of Defense Office of Inspector General
FPDS-NG	Federal Procurement Data System-Next Generation
FWPR	federal workforce priorities report
GAO	General Accounting Office

GS	General Schedule
IRB	Institutional Review Board
J&A	justification and approval
MICC	Mission Installation Contracting Command
MICC FDO-FSH	Mission Installation Contracting Command Field Directorate Office-Fort Sam Houston
NCMA	National Contract Management Association
NDAA	National Defense Authorization Act
OCS	operational contract support
OIB	Organic Industrial Base
OIG	Office of Inspector General
OPM	U.S. Office of Personnel Management
PCO	Procuring contracting officer
PEO STRI	Program Executive Office for Simulation, Training, and Instrumentation
PMR	Procurement Management Review
SAR	Self-Assessment Review
SATMO	Security Assistance Training Management Organization
STE CFT	Synthetic Training Environment Cross-Functional Team
TADSS	Training Aids, Devices, Simulator and Simulations
TSS-E	Training Support Services Enterprise
USD(A&S)	Office of the Under Secretary of Defense for Acquisition and Sustainment

I.   INTRODUCTION

A.   BACKGROUND

With annual contract obligations of $300 billion, the Department of Defense (DOD) faces many challenges. Most notable is "how it defines, strategically manages, and budgets for its contracted services, which typically account for about half" of its annual contract obligations (Dodaro, 2019, p. 227). As DOD's budget increases, the burden of ensuring taxpayer dollars are used appropriately increases along with the number of contract actions the contracting workforce is responsible for executing (Dodaro, 2019). To assess areas of concern, DOD Contract Management has been researched and analyzed by various organizations such as the Government Accounting Office (GAO) and the DOD Office of Inspector General (DOD Office of Inspector General (OIG)).

DOD's Contract Management has been on GAOs High Risk List since 1992 (Dodaro, 2021). This list includes "programs and operations" that are high risk due to apparent "vulnerabilities to fraud, waste, abuse, and mismanagement or in need of transformation" (Dodaro, 2021, para. 1). The High Risk List issued by GAO every two years "has led to more than $575 billion in financial benefits to the federal government over the past 15 years" (GAO, 2020, para. 1). Systemic issues regarding DOD's Contract Management identified in the report include difficulty identifying capabilities gaps, inadequate workforce capacity, and unclear guidance for contracting policy (Dodaro, 2019). Two years later, Dodaro continues to identify DOD's contract management as high risk, stating:

> Since our 2019 High-Risk Report, our overall assessment of all five criteria remains unchanged for Department of Defense (DOD) Contract Management. DOD continues to demonstrate top leadership support for addressing challenges in its (1) acquisition workforce, (2) service acquisitions, and (3) operational contract support (OCS), which is defined as planning for and obtaining supplies, services, and construction from commercial sources in support of joint operations. DOD has made significant progress addressing challenges with its acquisition workforce and has met the four remaining criteria. Consequently, we are removing Acquisition Workforce as a specific element within the DOD Contract Management high-risk area. Work still remains to address criteria for

service acquisitions and operational contract support. (Dodaro, 2021, p. 235)

Dodaro (2021) went on to acknowledge that "[t]he Department of Defense has significantly mitigated some key contract management risks, particularly risks involving its acquisition workforce, but it should do more to address risks involving contracted services and operational contract support" (p. 235).

Not only did DOD Contract Management make the GAO list, it also made DOD OIGs (2019) list of "Top Management Challenges for Fiscal Year 20" as Challenge 9 which is titled "Acquisition and Contract Management: Ensuring That the DOD Gets What It Pays For On Time, at a Fair Price, and With the Right Capabilities" (p. 111). The DOD OIG further acknowledges the complexity of the challenge by stating

> The complexity of developing major systems, while also addressing cyber security challenges within the acquisition process and deterring contactor fraud in DOD acquisition programs, further compounds the challenge for the DOD. The DOD obligates hundreds of billions of dollars for goods and services each year, which if not managed properly, creates the potential for significant fraud, waste, and abuse. (p. 3)

Although the DOD OIG acknowledges the contract management complexities within DOD, it recognizes that more effort is needed and is closely monitoring DOD's acquisition and contract management as the DOD continues to have schedule slips, cost overruns, and performance issues (DOD OIG, 2019). Many difficulties in contract management can be attributed to a workforce that lacks the skills necessary to execute the mission. Given this, DOD needs to retain the current workforce, recruit skilled contracting personnel, and improve the proficiencies and knowledge of the contract management workforce (Dodaro, 2021). In Dodaro's (2021) report, he stated "DOD reduced the size of its acquisition workforce in the mid-1990s as defense budgets decreased" (p. 235). Due to concerns about the contract management workforce competencies, DOD began hiring initiatives to increase the workforce in 2009 (Dodaro, 2021). As DOD increased the size of its acquisition workforce, it employed measures to equip the workforce with the necessary competencies, education, and training to execute efficiently and effectively (Dodaro, 2021). As part of this initiative, DOD established a baseline by performing

competency assessments on the contract management workforce and later reassessed to evaluate if improvements were made (Dodaro, 2019). In addition, National Defense Authorization Acts (NDAA) for Fiscal Year (FY) 2020 included multiple provisions that were clearly intended to impact auditability. (DOD OIG, 2019).

The DOD is prioritizing contract management competency reform due to the new requirements of the NDAA for FY 2020 (NDAA 2020, 2019). Specifically, Section 861 of the FY20 NDAA (2019) requires the DOD to establish a professional certification "based on standards developed by a third-party accredited program" (p. 1515). This triggered Tenaglia (2021), Principal Director of Defense Pricing and Contracting, to form a task force with the objectives to "recommend a new talent development structure to replace the current three-level contracting career field certification program, and to identify common and specialty knowledge," skills, and experience requirements for the contracting workforce (p. 1). Changes will be clear to the contracting workforce as the Defense Acquisition University (DAU) training and certification programs will be re-worked. This will be first time since the early 1990s that the contract management workforce will see a major restructuring of the education, training, and the certification program. Not only will the training change, but a new standard will be adopted, the National Contract Management Association (NCMA) Contract Management Standard (CMS).

The U.S. Army Human Capital Strategic Plan 2020 aligns with the NDAA 2020 as it includes the "Back-to-Basics" initiative. The plan describes Back-to-Basics as a means "to streamline the functional area framework and prioritize the limited training resources for the Defense acquisition workforce who develop, acquire, and sustain operational capability" (Director, Acquisition Career Management Office (DACM), 2020, p. iv).

GAO recommended the utilization of assessments to identify workforce competency gaps but has yet to see implementation of this tool as of its 2021 High Risk Series report to Congress (Dodaro, 2021). Use of workforce competency assessments will not only assist in the DOD's transition to the CMS, but also provide much-needed feedback for determining whether the acquisition community has sufficient capacity and capabilities to meet future acquisition needs (Dodaro, 2019).

As the NCMA CMS becomes the new DOD competency standard, the Army needs to conduct competency assessments of its contracting workforce based on the competencies now adopted. This leaves a deficiency in empirical data and understanding of the current workforce's capabilities based on the new standard. Insight into individual proficiencies will inform decision-makers on where to focus the redesign of training and education and will serve as a benchmark for how the current workforce performs under the NCMA CMS.

B.   PURPOSE OF RESEARCH

DOD recently approved the use of the NCMA CMS as its new Contracting Competency Model. This research will allow the Mission Installation Contracting Command Field Directorate Office-Fort Sam Houston (MICC FDO-FSH) and Army Contracting Command-Orlando (ACC-ORL) to gain a better understanding of their workforce's capabilities and assess the overall knowledge of the contracting workforce. This information will allow each agency to improve their organizational capabilities. Both organizations will be able to identify their current competency gaps prior to implementing the new standard. The primary purpose of this research is to assess the competencies of MICC FDO-FSH and ACC-ORL contracting workforce using the NCMA CMS competency framework. This analysis will enable the organizations to identify a baseline average of the current competency levels across the pre-award, award, and post-award phases of contract management and provide an assessment of the current contracting management workforce competencies.

A competency assessment is an initial step to identifying the changes needed to align skills to requirements. A competency assessment based on the NCMA CMS has not been conducted within the MICC FDO-FSH and ACC-ORL organizations. While service-specific studies and reviews helped inform training revisions needed in the DOD, an assessment of workforce competencies will provide a more complete understanding of necessary focus areas.

C.   RESEARCH QUESTIONS

To initiate meaningful changes amongst the acquisition workforce, the Army must obtain a true understanding of its current competencies. A competency assessment will be

conducted at MICC FDO-FSH and ACC-ORL offices. Analysis of the assessment results will help to determine a path forward for achieving a more efficient and competent workforce. With this common understanding, the following are the primary research questions of this study:

1. Based on assessment results, what are the proficiency ratings for the buyers' competencies?

2. Based on assessment results, what are the knowledge ratings for the sellers' competencies?

3. Based on assessment results, what recommendations can be made for maintaining and improving the ACC-ORL and MICC FDO-FSH contracting workforce competency levels?

4. Based on assessment results, how does the analysis relate to other performance metrics used by the organizations?

D.   ORGANIZATION

This report is organized into five chapters. Chapter I will introduce the background of DOD contract management, explanation of the purpose of the research, the research questions, and the methodology used. Chapter II is the literature review, which provides information on the research's theoretical frameworks, DOD training and education, and the NCMA CMS. Chapter III gives an overview of Army Materiel Command, Army Contracting Command, Mission and Installation Contracting Command through ACC-ORL and MICC FDO-FSH contracting agencies. It briefly explains the structure of the offices as well as why they were selected for this research. Chapter IV is findings and analysis of the research, which describes the contracting workforce competency assessment, discussion of the results with recommendations, and a comparison of the organizations' results. Chapter V gives a final summary of the research, a conclusion of the findings, and areas for possible further research.

E. METHODOLOGY

The research will be conducted to better understand the contracting workforce competencies to identify gaps, which would assist in the development of training plans for the workforce. This report assesses the ACC-ORL and MICC FDO-FSH acquisition workforce's competencies in the pre-award, award, and post-award phases of the contract management life cycle based on the NCMA CMS framework. An assessment will be administered online to allow participants to rate their proficiency for buyer competencies and knowledge of the seller competencies. Questions relating to buyer proficiency and seller knowledge competencies assess their proficiency in performing contract management job tasks. Data gathered through the contracting workforce competency assessment will allow each office to identify baseline proficiency and knowledge for their workforce. Additional analysis will help to determine possible relationships between assessment results and other assessments of the ACC-ORL and MICC FDO-FSH contracting workforce. Assessment results and analysis will be presented in the form of recommendations that ACC-ORL and MICC FDO-FSH may use to sustain and improve their contracting workforce.

F. BENEFITS AND LIMITATIONS OF THE RESEARCH

Leadership at ACC-ORL and MICC FDO-FSH will have the benefit of using these results of this assessment in three ways. First, the assessment will allow ACC-ORL and MICC FDO-FSH to establish a baseline for each organization to reference in the future to indicate the effectiveness of training initiatives. Second, the results may be used to identify competency areas that will need further evaluation. This shines a light on areas that need improvement or areas that are considered strengths of ACC-ORL and/or MICC FDO-FSH personnel. Third, the Army can utilize assessment results to quantify the recommendations provided when making decisions regarding future training efforts for the acquisition workforce. Training efforts can be developed and adjusted to meet the needs of the organization based on the data collected from this competency assessment.

Limitations of this research point to data being derived from a survey that is anonymous, the willingness of volunteers to complete, and a 100% self-assessment of

competencies. Anonymity of the assessment participants could result in skewed or bogus responses that could potentially impact the demographic and competency data. A noted limitation of the research is that it is founded solely on willingness of the workforce to voluntarily respond and to be honest in those responses. The contracting workforce at the MICC FDO-FSH and ACC-ORL were emailed an invitation to voluntary participate in the assessment. A natural limitation with this method is that many participants may not be willing to input their data without being directed by management to do so. This may cause data to not accurately reflect the entirety of the MICC FDO-FSH and ACC-ORL contracting workforce.

The data was collected by having the contracting workforce conduct a self-assessment of both the buyer proficiencies and knowledge of seller competencies. As such, this could result in in research data that have a strong individual bias. This could lend itself to a wide variation in data due to experience, workplace culture, training, and difference in opinions on what each competency entails. Although limitations have been identified, the value of this research should not be understated due to it being a viable source of contracting workforce competency data based on the NCMA CMS gathered at MICC FDO-FSH and ACC-ORL. This assessment should provide each organization with a baseline from which further research and contracting workforce training reform can be established.

G.   SUMMARY

This chapter introduced the challenges faced by the DOD, to include contract management challenges and discussed the GAO and DOD OIG findings. While service-specific studies and reviews have helped inform training revisions needed in the DOD, an assessment of workforce competencies will provide a more complete understanding of necessary focus areas. This is the basis for the purpose of the research and the research questions. Chapter I also outlined the organization of the paper, methodology used, and the benefits and limitations of the research. Chapter II is a literature review of applicable publications used for this research.

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II.   LITERATURE REVIEW

A.   INTRODUCTION

The purpose of this chapter is to present a literature review that provides the basis for our research. It first discusses auditability theory, which frames our research in competency assessment. Next, it discusses the Department of Defense (DOD) education and training for the contracting workforce to include a discussion of the Defense Acquisition Workforce Improvement Act (DAWIA), managed by the Defense Acquisition University (DAU). The Department of Defense Instruction DOD Instruction (DoDI) 5000.66 Defense Acquisition Workforce Education, Training, Experience, and Career Development Program implementation is discussed followed by a discussion on the Government Accounting Office (GAO) and RAND reports. The implications of the National Defense Authorization Act (NDAA) of 2020 is discussed along with how the Back-to-Basics initiative is the result of it. The National Contract Management Association (NCMA) Contract Management Standard (CMS) is discussed next with the value in using an industry standard last.

B.   AUDITABILITY THEORY

Auditability Theory states that in order for organizations to be successful, they must have competent personnel, capable processes, and effective internal controls (Rendon & Rendon, 2015). Auditability Theory can be applied to DOD contract management as it needs "a competent procurement workforce, capable procurement processes, and effective internal controls to achieve its procurement goals and objectives" (Rendon & Rendon, 2015, p. 712). To better understand Army's actions in terms of auditability theory, one needs to first understand the auditability theory's components. As reflected in Figure 1, the Auditability Theory conceptual framework is a triangle with Personnel, Processes, and Internal Controls as the sides.
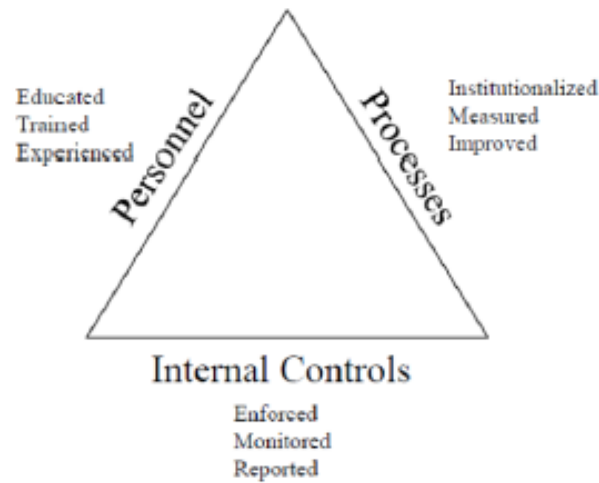
Figure 1.   Auditability Triangle.
Source: Rendon and Rendon (2015).

1. Personnel

According to Rendon (2019), the Personnel component of the auditability triangle includes the competence of personnel and education, training, and experience are key to having a competent workforce. Ideally, "[i]ndividual competence will lead to greater success in performing contract management tasks and activities" (Rendon, 2019, p. 89). The workforce should be educated at a set standard, trained to conduct job specific tasks, and experienced at the level necessary to complete their job duties and responsibilities. Historically, the DOD has utilized the DAU to train the contracting workforce in accordance with DAWIA policy, which includes education, training, and experience requirements. In addition to competent personnel, the auditability theory states that organizations should have capable processes which is discussed next (Rendon, 2019).

2. Processes

The Processes component of the auditability triangle includes the work processes that are performed in the organization. Capable processes are institutionalized, measured, and improved within the organization. These activities are regularly assessed and

measured, and continuously improved upon based on those measurements. The DOD has processes within all aspects of the contracting life cycle (pre-award, award, and post-award), which include procurement planning, solicitation, source selection, contract administration, and contract closeout (Rendon & Rendon, 2015). Furthermore, the auditability theory states that you should have internal controls which will be discussed next.

3. Internal Controls

The internal controls component of the auditability triangle ensures compliance with policy, procedure, and regulation which entails monitoring, enforcing, and reporting when activities are not being executed properly (Rendon, 2019). Internal controls within DOD contracting include justifications and approvals (J&A), small business coordination records, and oversight and monitoring to include peer reviews. J&As are used for approval of various contracting decisions such as use of other than full and open competition, time and material contracts, and single source indefinite delivery/indefinite quantity contracts. The small business coordination record requires concurrence from the Small Business Administration for the organizations chosen competitive path. Oversight and monitoring may include Contract Review Boards (CRB), Procurement Management Reviews (PMR), Self-Assessment Reviews (SAR), and Contract Management Reviews (CMR). All of these reviews are conducted to ensure contracting actions are following statutory, regulatory, and policy requirements.

The DOD Office of Inspector General (OIG)

acts as the principal advisor to the Secretary of Defense in matters regarding DOD fraud, waste, and abuse. DOD OIG combats fraud, waste and abuse in the Department of Defense by conducting audits, investigations and evaluations. In addition, the Inspector General ensures the Secretary of Defense and the Congress are fully informed of problems in the Department. (DOD OIG, n.d.)

Based on the above functions of the DOD OIG, it is clear they are the governing body for determining if DOD's internal controls are effective. Now that the theoretical foundation is set, the next section discusses the education and training policy of the DOD contracting workforce.

C. EDUCATION AND TRAINING IN CONTRACTING

1. Defense Acquisition Workforce Improvement Act

The DAWIA was signed into law in 1990 but has been amended several times (2003, 2004, and 2006). It required the DOD to "establish education and training, standards, requirements, and courses for the civilian and military workforce" (AcqNotes, 2018, para. 3). To develop these standards, 10 U.S. Code Chapter 87 was established. The DOD developed a certification program that includes education, training, and experience requirements with three levels of certification. The standards established by DAWIA led to the establishment of the DAU, discussed next, to train the acquisition workforce.

2. Defense Acquisition University

Training associated with the DAWIA certifications is managed by DAU. DAUs mission is to "[p]rovide a global learning environment to develop qualified acquisition, requirements, and contingency professionals who deliver and sustain effective and affordable warfighting capabilities" (DAU, n.d.-a). DAU developed a training curriculum that includes both residential and on-line training. As of March 2021, the current certification training requirements are as follows:

- Level I requires 11 training courses, a baccalaureate degree, and one year of contracting experience. These training courses equate to approximately 193 hours (continuous learning points (CLPs)) of in-class education plus any pre-course work (DAU, n.d.-b).

- Level II requires six additional training courses and two years of contracting experience. This training equates to approximately 192 hours (CLPs) of in-class education plus any pre-course work (DAU, n.d.-b).

- Level III requires two additional training courses and four years of contracting experience. This training equates to approximately 85–126 hours (CLPs) of in-class education, depending on the elective chosen plus any pre-course work (DAU, n.d.-b).

As the institution responsible for developing competent personnel, DAU must adjust as the DOD evolves its expectations for training the acquisition workforce, which includes DoDI 5000.66.

3. Department of Defense Instruction 5000.66 Defense Acquisition Workforce Education, Training, Experience, and Career Development Program

This DOD instruction became effective in 2017 and was updated in 2019, replacing previous directives and instructions regarding acquisition workforce training. This policy identified the three certification levels as basic, intermediate, and advanced. Fundamental competencies are needed for the basic level while the intermediate level emphasizes functional specialization meaning the individual should have and be able to apply journeyman-level acquisition-related skills (DOD, 2019). Advanced level certification requires a high level of acquisition knowledge and skills (DOD, 2019). This also requires 80 hours of continuous learning every two years for all acquisition workforce.

The DoDI 5000.66 implemented the "competency model framework for the contracting career field by establishing its contracting competency model" (Rendon, 2019, p. 89). Citing an Office of the Under Secretary of Defense memorandum titled "Competency Assessment of the Contracting Career Field," Rendon explains that DOD uses this model to assess the competencies of its contract management workforce, identify competency gaps, and develop way to close gaps through training. Rendon further explains that the DOD contracting competency model includes "11 units of competence (10 technical units and 1 professional unit). The units of competencies are broken down into 28 technical competencies and 10 professional competencies, which are further broken down into 52 technical elements and 10 professional elements" (p. 89). While a significant effort has been undertaken to improve the contracting workforce competencies; as discussed next in the GAO report, deficiencies still exist.

4. Government Accountability Office

As previously stated, the GAO has identified DOD contract management as a high risk, per the GAO 2021 list. The GAO High Risk List is "a list of programs and operations that are 'high risk' due to their vulnerabilities to fraud, waste, abuse, and mismanagement or that need a transformation" (GAO, 2020, para. 1). In addition, the GAO Report 16–80 states

> GAO and others have found that DOD needs to take steps to ensure DOD has an adequately sized and capable acquisition workforce to acquire about $300 billion in goods and services annually. DOD is required by statute to develop an acquisition workforce plan every 2 years. DOD issued a plan in 2010, in which it called for the department to increase the size of the acquisition workforce by 20,000 positions by fiscal year 2015 but has not yet updated the plan. (DiNapoli, 2015)

The DOD increased the size of its acquisition workforce by about 21% from September 2008 to March 2015 (DiNapoli, 2015). The DOD has a great responsibility to have qualified personnel to obligate its funding and this report identified several actions needed to improve workforce capability. DiNapoli (2015) states that, as part of an initial competency assessment, the DOD identified a need for an increase in fundamental skills for entry to mid-career levels and in the "breadth and depth of knowledge...[for] mid-career to senior levels" (DiNapoli, 2015, p. 18). One action is taken to improve this was the creation of a 4-week DAU course on the fundamentals of contracting (DiNapoli, 2015). The GAO was required by Congress to review DOD's acquisition workforce plans (DiNapoli, 2015). An update DOD workforce plan and proper implementation may ensure a transformation in contract management and allow DOD to be better positioned to meet future needs.

5. RAND Report

The Office of the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) was directed by NDAA Section 843(c) to assess the acquisition workforce training program (Werber et al., 2019). The report states:

The legislation indicated two key objectives of the assessment:

1. To determine the effectiveness of training and development resources offered by providers outside the U.S. Department of Defense that were available to acquisition workforce (AWF) personnel and
2. To assess gaps in business acumen, knowledge of industry operations, and knowledge of industry motivation present within the AWF. (Werber et al., 2019, p. iii)

To accomplish this assessment, the USD(A&S) asked the RAND Corporation for support. The following assessment findings align with those identified in NDAA FY18 Section 843(c).

The training and development options DOD was using at the time of the study to confer business acumen, knowledge of industry operations, and knowledge of industry motivation evidence of training gaps related to these three types of knowledge the potential role of training and development offered by external providers, such as industry firms and colleges and universities, in building business acumen and knowledge of industry within the AWF. (Werber et al., 2019, p. iii)

In addition, the RAND report also identified the following finding specific to a lack of standardization in competency models.

1. Competency models are not developed in standardized formats.
2. Competency models are developed with limited coordination across career fields and there is no common structure to map competencies to career progression.
3. Competency models are developed and revised differently across the career fields. (Werber et al., 2019, pp. xii–xiii)

USD(A&S)'s continued interest in developing a highly skilled AWF are reflected in Section 861 of NDAA FY2020.

6. National Defense Authorization Act of 2020

In December 2019, Congress issued the NDAA 2020 which required the Secretary of Defense to implement a new certification program for the acquisition workforce (NDAA 2020, 2019). The NDAA 2020 further required that this certification be based on third-party accredited national or international standards. The NDAA states,

(1) PROFESSIONAL CERTIFICATION.—(1) IN GENERAL.—The Secretary of Defense shall implement a certification program to provide for a professional certification requirement for all members of the acquisition workforce. Except as provided in paragraph (2), the certification requirement for any acquisition workforce career field shall be based on standards developed by a third-party accredited program based on nationally or internationally recognized standards.

(2) REQUIREMENTS FOR SECRETARY.—If the Secretary determines that, for a particular acquisition workforce career field, a third-party accredited program based on nationally or internationally recognized standards does not exist, the Secretary shall establish the certification requirement for that career field that conforms with the practices of national or international accrediting organizations. The Secretary shall determine the best approach for meeting the certification requirement for any such career field, including by implementing such certification requirement through entities outside the Department of Defense, and may design and implement such certification requirement without regard to section 1746 of this title. (NDAA 2020, 2019, p. 319)

The DOD selected the NCMA CMS because it is an industry standard accredited by a third-party. The American National Standards Institute (ANSI) accredited the NCMA CMS as the American National Standard in April 2019. In response to NDAA 2020, the USD(A&S) initiated the Back-to-Basics (BtB) initiative.

7. "Back-to-Basics" for the Defense Acquisition Workforce

In 2020, the USD(A&S) issued a memorandum titled Back-to-Basics (BtB) for the Defense Acquisition Workforce. Lord (2020) explains that the goal is to pivot from previous less-focused training requirements to a more streamlined approach which will focus on functional areas and the training specific to them. The Army Acquisition Support Center describes BtB as a reform "to equip the acquisition workforce – creating a lean enterprise training requirement that increases opportunity for the workforce to get job-relevant training at the point of need and more targeted development training" (Department of Army [DoA], n.d., para. 3). The expectation is that the leaner certifications requirements will be focused on core competencies (DoA, n.d.). Specifically, the BtB initiative reduces the certification process from three levels to one level for the DOD contracting workforce which will result in an approximately 450-hour reduction in training.

The USD(A&S) memorandum led to the creation of a BtB initiative which will reach full deployment on October 1, 2021. The BtB initiative will transform "how the workforce will be managed and trained to better align the acquisition and delivery of goods and services to support the Warfighter" (Tenaglia, 2021, p. 1). This memorandum introduces the adoption of one single certification, based on the NCMA CMS, which will be the industry standard used for training the DOD contracting workforce.

D.   NATIONAL CONTRACT MANAGEMENT ASSOCIATION CONTRACT MANAGEMENT STANDARD

The NCMA states that it "is the world's leading resource for professionals in the Contract Management field" (NCMA, n.d.-a, para. 1). NCMA provides training, certifications, and standards to both buyers and sellers in the contract management workforce. The NCMA CMS competency model was chosen by the DOD to address the requirement within the NDAA 2020 for the third-party accredited national standard. The Contract Management Body of Knowledge (CMBOK) utilizes the CMS as the framework for its training and certification programs. The DOD adopted the NCMA CMS as its Contracting Competency Model. The model discusses Pre-Award, Award, and Post-Award phases within the contract management life cycle. The CMBOK brings together information from both the buyer and seller perspective. The seller perspective is not one that government employees can gain on-the-job. The CMBOK states that the NCMA CMS is what connects the dots among work experience, training, and education (NCMA, 2019).
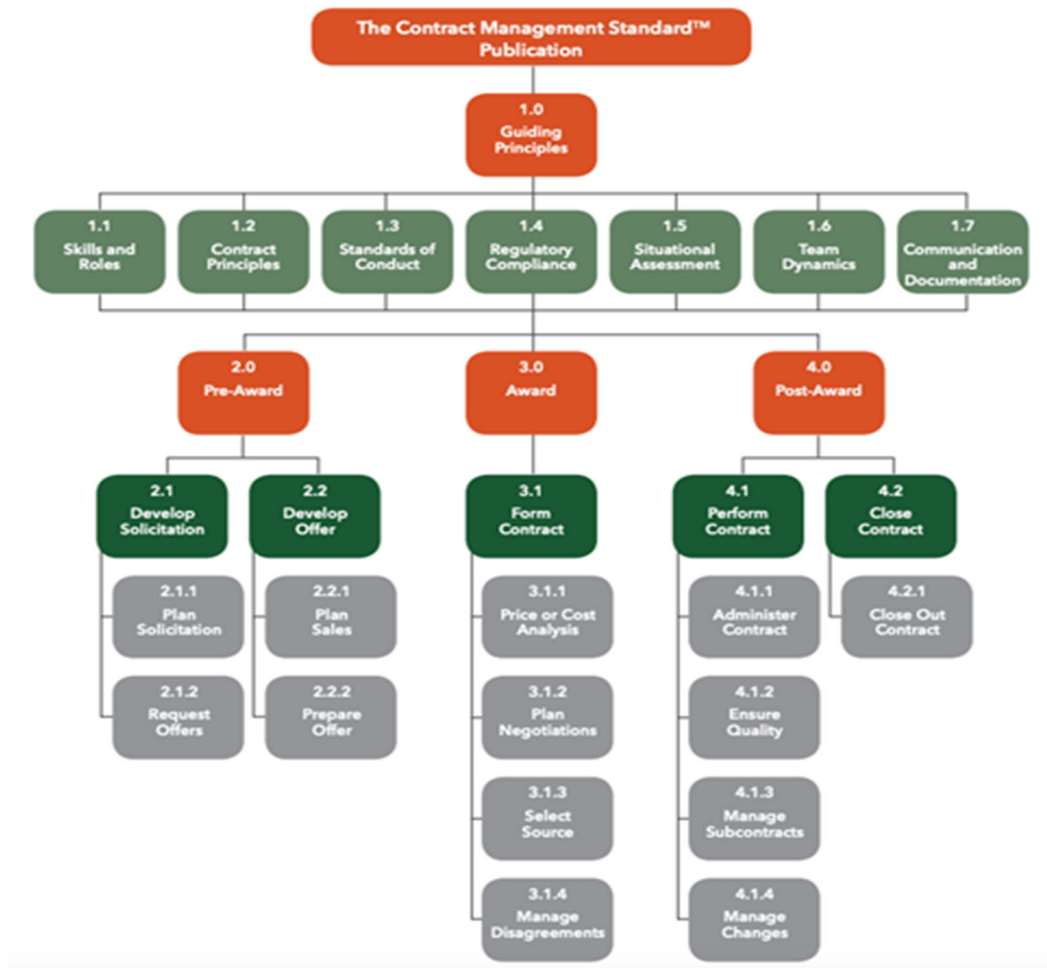
Figure 2.   Contract Management Standard Structure.
Source: NCMA (2019, p. 315).

As seen in Figure 2, the NCMA (2019) established the CMS Guiding Principles with competencies that are applicable throughout all phase of the contract management life cycle for both buyers and sellers. According to NCMA, the guiding principle competencies are Skills and Roles, Contract Principles, Standards of Conduct, Regulatory Compliance, Situational Assessment, Team Dynamics, and Communication and Documentation. The pre-award phase captures the following competencies: Plan Solicitation, Request Offers, Plan Sales, and Prepare Offer (NCMA, 2019). The government plans solicitations and requests offers while the seller plans sales and prepares an offer. The competencies within the award phase are Price or Cost Analysis, Plan Negotiations, Select Source, and Manage Disagreements (NCMA, 2019). The government performs all four competencies while the

seller will perform Plan Negotiations and Manage Disagreements. NCMA's Contract Management Standard Structure shows the post-award phase competencies as Administer Contract, Ensure Quality, Manage Subcontracts, Manage Changes, and Closeout Contract (NCMA, 2019). The government and seller will both Administer Contract, Ensure Quality, Manage Changes, and Closeout Contract. The seller will Manage Subcontracts. The competencies are defined in Table 1.

Table 1. Pre-Award, Award, and Post-award Competency Definitions

Plan Solicitation	"the process by which efforts of all personnel responsible for acquisition a product or service are coordinated and integrated through a comprehensive plan for fulfilling the customer's need in a timely manner at a reasonable cost" (NCMA, 2019, p. 126).
Request Offers	"the process of executing the solicitation plan by soliciting responses from sellers to fulfill a customer need" (NCMA, 2019, p. 155).
Plan Sales	"the process of organizing pre-sales activities to develop customer relations and market strategy, and assessing competition" (NCMA, 2019, p. 157).
Prepare Offer	"the organization's ability to execute the sales plan as it assembles an offer to win business" (NCMA, 2019, p. 165).
Price or Cost Analysis	Price or Cost Analysis includes two techniques for determining a fair and reasonable price. "Price Analysis is the process of evaluating a prospective price using relevant comparative prices of historical precedents without evaluating separate cost elements of the offeror(s)" (NCMA, 2019, p. 181). "Cost analysis is done on contracts where the seller provides the buyer with a detailed breakdown of the proposed contract price" (NCMA, 2019, p. 181).
Plan Negotiations	"Negotiating is a communication process where two parties attempt to reach agreement" (NCMA, 2019, p. 182). Planning is the most important step as each party needs to understand their limitations and have an in-depth knowledge on the subject.
Select Source	This includes the process of selecting the company which will be awarded a contract.
Manage Disagreements	"The process of managing disagreement between potential and actual contracted parties adds value to the award life cycle by providing the ability to resolve issues related to the solicitation or source selection process through information and formal means" (NCMA, 2019, p. 194).
Administer Contract	"The administer contract competency is the oversight of contract performance pursuant to the fulfillment of contract terms, conditions, and specifications" (NCMA, 2019, p. 200).

Ensure Quality	"requires the seller to ensure that the products and services delivered to the buyer conform to the contract requirements" (NCMA, 2019, pp. 204–205).
Manage Subcontracts	"the management of contracts in support of the prime contract" (NCMA, 2019, p. 206)
Manage Changes	"Changes must be managed to ensure configuration control of the contract and subsequent contract performance" (NCMA, 2019, p. 217).
Closeout Contract	"the process of ensuring all performance has been accomplished, final contract performance has been evaluated, final payment has been made, and the contract has been reconciled" (NCMA, 2019, p. 222).

E.   THE VALUE IN USING AN INDUSTRY STANDARD

Implementation of an industry standard competency model will establish the competencies that are both applicable and required throughout all phases of the contract life cycle for both buyers and sellers. DOD recognized the need for education of buyer and seller tasks, which is why it mandated an industry standard as opposed to telling the DOD to update its existing standard. The NCMA CMS as the industry standard will ensure the general competencies no longer vary and ensure buyers get insight into the tasks performed by sellers.

The NCMA CMS competency model will allow for industry-wide standards in training on the same concepts and processes, this will improve communication and collaboration between buyers and sellers. Specifically, the CMBOK states that value in the NCMA CMS is that it is "an integrated, whole-systems design" that is both "intuitive and predictable" (NCMA, 2019, p. 20). The NCMA goes on to say "[t]he CMS provides the starting point for developing and maintaining the following:

- Contract management work experience practices, policies, and processes;
- Contract management training courses and programs;
- Contract management college courses and curricula" (p. 20).

In the article titled "The Contract Management Standard: Foundation for Assessing Process Maturity," Rendon (2016) further emphasizes the value of an industry standard by

stating the value of the NCMA CMS lies in the standardization of "common terminology, processes, competencies, and job tasks used in contract management. Using standardized contracting terms and processes will help an organization achieve success in contract management" (p. 1). In conclusion, Rendon states that the NCMA CMS is an invaluable tool when organizations begin to assess their contract management process maturity and adopt process maturity models (Rendon, 2016). Previous research on auditability touched on DoDs lack of emphasis on contract management processes and internal controls with the finding showing that there may be a lack of auditability within DOD agencies (Rendon & Rendon, 2015). Use of an industry standard would assist in auditability as procurement processes would be standardized. The need for auditability will only increase as DOD strives "for accountability, integrity, and transparency in their procurement operations" (Rendon & Rendon, 2015, p. 710).

The NCMA CMS is the basis for the CMBOK and the value of the CMBOK competency model is that it is more concise than the DOD Contract Competency Model as it separates competencies for each major contract management life cycle phase (as opposed to combining pre-award and award), providing more emphasis on the individual elements (Rendon & Winn, 2017). The most significant difference described is the fact that the DOD Contract Competency Model did not address contract management competencies from both a buyer and seller perspective like the CMBOK (Rendon & Winn, 2017).

In "Competency in contract management: a comparison of DOD and COMBOK competency models" Rendon and Winn (2017) state that the "CMBOK competency framework may provide a better approach for developing the DOD contract management workforce competency" and "expanding the DOD Model to include management competencies will help in strengthening systems thinking" (p. 80). This would provide government personnel with insight into the processes and objectives of the contractor. The authors had foresight that the government did not have when it was written four years prior to the full deployment of the BtB initiative, which will serve as the foundational training for the contracting workforce.

In the article "Benchmarking contract management process maturity: a case study of the U.S. Navy," using a process capability maturity model, Rendon (2015) performs a

contract management process maturity assessment in the United States Navy (p. 1481). The article presents that use of a maturity model as a benchmark "will improve standardization, consistency and transparency" (Rendon, 2015, p. 1487). The findings from the assessment show a basic level of process maturity for Solicitation, Contract Administration, and Contract Closeout, indicating some contract management processes are in place but only on selected contract (Rendon, 2015). This indicates a lack of consistency which aligns with the finding that there are no organization policies establishing the consistent uses of the processes and standards (Rendon, 2015). The findings showed that the "maturity levels and process capability enabler scores reflect the extent of the implementation of contracting best practices within contracting agencies" (Rendon, 2015, p. 1481). The findings from this article further emphasize the importance of a standard that everyone complies with.

Rendon & Schwartz recently performed research to "develop a new contracting competency assessment instrument based on the NCMA CMS to be used in assessing the DOD's contracting workforce" (Rendon & Schwartz, 2020, p. 1).

F.   SUMMARY

The purpose of this chapter was to present a literature review that provides the basis for our research. It first discussed auditability theory, which frames our research in competency assessment. Next, it discussed the DOD education and training for the contracting workforce to include a discussion of the DAWIA, managed by the DAU. The Department of Defense Instruction DoDI 5000.66 Defense Acquisition Workforce Education, Training, Experience, and Career Development Program implementation was discussed followed by a discussion on the GAO and RAND reports. The implications of the NDAA of 2020 was discussed along with how the Back-to-Basics initiative is the result of it. The NCMA CMS was discussed next with the value in using an industry standard last. The next chapter discusses Army contracting providing the organizational hierarchy that starts with the Army Materiel Command, then Army Contracting Command through Army Contract Command-Orlando and the Mission and Installation Contracting Command Field Directorate Office-Fort Sam Houston.

III. ARMY CONTRACTING

A. INTRODUCTION

In this chapter, the focus is on the organizational hierarchy of Army contracting. The chapter will include a discussion on the Army Materiel Command (AMC) and the Army Contracting Command (ACC), one of AMC's major subordinate commands. It will also focus on the Mission and Installation Contracting Command (MICC) and an overview of the organizations assessed for this research, Army Contracting Command-Orlando (ACC-ORL), and Mission and Installation Contracting Command Field Directorate Office-Fort Sam Houston (MICC FDO-FSH).

B. ARMY MATERIEL COMMAND (AMC)

Army Material Command's (AMC) mission is Army readiness. Readiness "sets conditions to create surge capability and capacity and is modernizing in support of future capabilities" (U.S. Army Materiel Command Resource Guide, 2020, p. 8). AMC's responsibilities range from maintenance and distribution of spare parts to transportation and movement of equipment and munitions, to security assistance programs in support of partner nations. The command leads, manages and operates the Army's Organic Industrial Base (OIB). The OIB overhauls, modernizes and upgrades major weapon systems through 26 depots, arsenals and ammunition plants. The facilities are essential to providing the necessary resources, and AMC is ensuring the OIB is ready to sustain fielded systems, maintain pace with Army modernization efforts and postured to surge in support of combat operations. AMC includes the ACC, which "handles the majority of the Army's contracting, including a full range of contracting services for deployed units and installation-level services, supplies, and common-use information technology hardware and software" (U.S. Army Materiel Command Resource Guide, 2020, pp. 8–9). A further explanation of ACC's history and mission are provided in the following section.

C.   ARMY CONTRACTING COMMAND (ACC)

The Army Contracting Command (ACC) was

> officially established in 2008 in an effort to help meet the expanding
> workload being handled by Army contracting personnel during wars in
> Afghanistan and Iraq. Even in its brief history, ACC has continually
> demonstrated commitment to improving support for the Army, America's
> allies and those in need of humanitarian support. (U.S. Army Materiel
> Command Resource Guide, 2020, p. 19)

As seen in Figure 3, the U.S. Army Contracting Command Annual History (2020) shows that ACC has "one subordinate one-star command, the Mission and Installation Contracting Command (MICC), locations inside the continental United States" and "six major contracting centers that provide support to AMC's commands" (p. 128). ACC and its supporting organizations and contracting centers provide acquisition support for the U.S. Army as the chief buying agent – ensuring that warfighters have what they need to be successful (ACC, n.d.-a). As the primary purchasing agency for the Army, "[t]he command accomplishes its global operational missions with a professional workforce of Soldiers, Department of the Army civilians, foreign local nationals and contractors at more than 100 locations worldwide" (ACC, n.d.-a, para. 4).
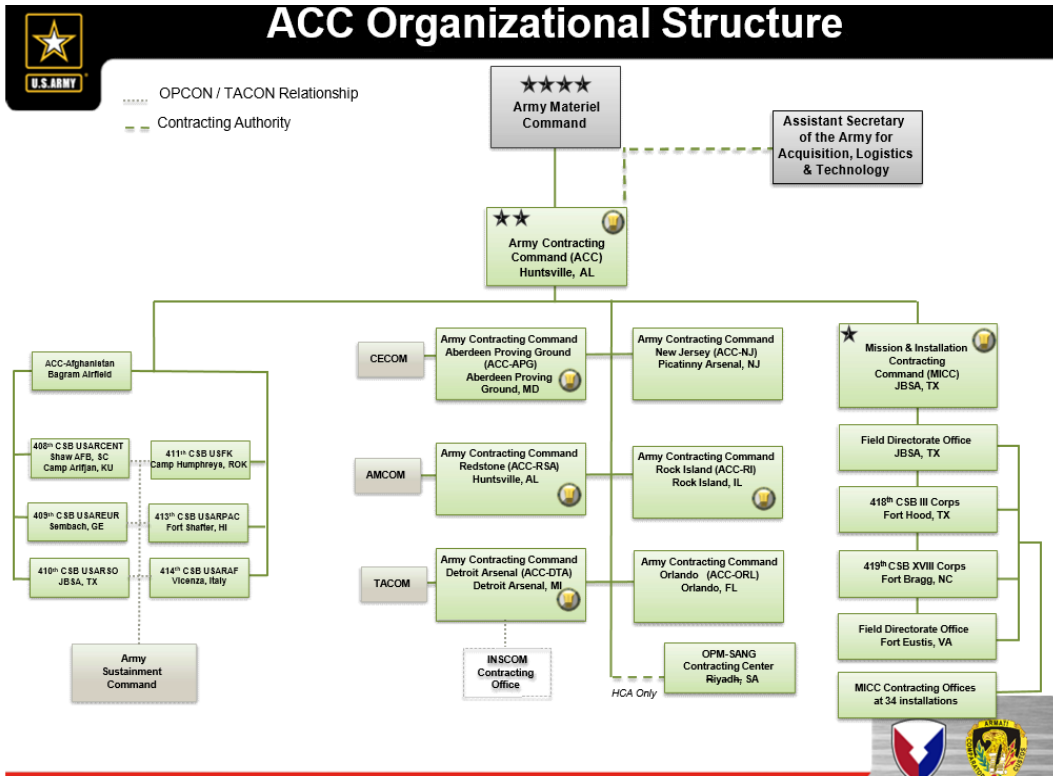
Figure 3.   ACC Organizational Structure
Source: U.S. Army Contracting Command (2020, p. 3).

ACC assists approximately

180 expeditionary missions in 50 countries each year. ACC has the capability to deploy anywhere in the world on short notice to provide operational contract support planning, contract policy and oversight, contract execution, contract administration, contract surveillance in support of deployed forces and contract closeout. (ACC, n.d.-a, para. 8)

According to Federal Procurement Data System–Next Generation (FPDS-NG), ACC executed 140,000 actions, including contracts, other transaction authority, and grants/agreements valued at approximately $84.4 billion in FY 2020 (FPDS-NG, n.d.). The next section discusses the mission and responsibilities of the MICC.

D.   MISSION AND INSTALLATION CONTRACTING COMMAND (MICC)

The composition of the MICC "made up of about 1,500 Soldiers and Civilian members assigned to two contracting support brigades, two field directorate offices, 30 contracting offices and nine battalions that provide contracting support to the Army

enterprise" (MICC, 2021, p. 1). MICC has been designated as the lead in providing the acquisition activities necessary to support existing and future Army readiness requirements (MICC, 2021). The MICC Fact Sheet (2021) goes on to state how its "contracts are vital support services at installations, preparing more than 100,000 conventional force members annually, facilitating training for more than 100,000 students each year, and maintaining more than 14.4 million acres of land and 170,000 structures" (p. 2). The MICC has "managed more than 400,000 Government Purchase Card Program transactions in fiscal 2020 valued at an additional $801 million" (MICC, 2021, p. 2). The next section discusses ACC-ORL and MICC FDO-FSH, which are the two organizations that participated in the competency assessment for this research.

E.   OVERVIEW OF THE ORGANIZATIONS ASSESSED

1. Army Contracting Command-Orlando (ACC-ORL)

ACC-ORL is one of six contracting centers. ACC-ORL's major customers are Program Executive Office for Simulation, Training, and Instrumentation (PEO STRI), "the Synthetic Training Environment Cross-Functional Team (STE CFT), the Security Assistance Training Management Organization (SATMO), the Training Support Services Enterprise (TSS-E), and other contracting missions as assigned" (U.S. Army Contracting Command, 2020, p. 264). The nature of its acquisition support consists of "procuring a wide range of training and testing products and services to include non-system and system…Training Aids, Devices, Simulator and Simulations (TADSS), Operations, Maintenance and service support for non-system and system TADSS, test range instrumentation, ground and aerial targets, and threat systems for the Army" (ACC, n.d.-b, paras. 4 & 6). The FPDS-NG was utilized to query contract actions executed by ACC-ORL from October 1, 2019 to September 30, 2020. Based on FPDS-NG data FY 2020, ACC-ORL executed ~$2.4 billion in obligations across 2,500 contract actions (FPDS-NG, n.d.). These contract actions were accomplished with 162 workforce personnel consisting of both civilian and military personnel (U.S. Army Contracting Command, 2020).

ACC-ORL has several procurement management oversight activities to include Contract Review Boards (CRBs), Procurement Management Reviews (PMRs), Self-

Assessment Reviews (SAR), Contract Management Review (CMR), as well as monthly staff reports. With the exception of the PMR, these oversight activities are performed at the center level. ACC-ORL conducts CMRs quarterly. ACC Headquarters conducts PMRs for ACC Contracting Centers. Unless more frequent reviews are deemed necessary, PMRs are conducted every three years. Given ACC-ORLs low risk rating from its PMR in 2019, its next review is in 2022. Review questions are placed into pre-award and post-award activities with severity ranging from 1–4 (4 being the most severe).

2. Mission Installation Contracting Command Field Directorate Office-Fort Sam Houston (MICC FDO-FSH)

MICC FDO-FSH is made up of three subordinate contracting offices at Fort Sam Houston, Texas; Fort Knox, Kentucky; and Fort Belvoir, Virginia. MICC-Fort Belvoir serves the five Army installations in the National Capital Region (Mattox, 2018).

The contracting offices plan, integrate, award and administer primarily operational support contracts for commodities, services and construction. The mission partners include Arlington National Cemetery, Assistant Secretary of the Army for Installations, Energy and Environment, Office of the Assistant Chief of Staff for Installation Management, Installation Management Command, Army North, Army Human Resources Command, U.S. Medical Entrance Processing Command, the Military District of Washington and many elements of the Army Staff (Mattox, 2018). According to FPDS-NG, MICC FDO-FSH executed 5,692 actions valued at more than $1.3 billion in FY 2020 (FPDS-NG, n.d.).

Similar to ACC-ORL, MICC FDO-FSH has several procurement management oversight activities that include peer reviews (solicitation review boards, CRBs, and post-award peer reviews), SARs, and PMRs. However, rather than ACC conducting the PMRs, HQ MICC has been delegated the responsible for managing and implementing the MICC PMR Program on behalf of the Head of Contracting Activity. HQ MICC conducts the PMRs for the Contracting Office Centers. Both MICC-Knox and MICC-Fort Sam Houston are designated Contracting Office Centers. FDO-FSH conducts the PMRs for MICC-Belvoir. All MICC PMRs are conducted in accordance with Army Federal Acquisition Regulation Supplement Appendix CC and implementing guidance found in Appendix CC

of the local MICC document known as the MICC Desk Book. The contract execution ratings for the most recent PMRs completed on each office is as follows: MICC-Belvoir received an overall medium (medium in both pre-award and post-award); MICC-Knox received an overall medium (medium in pre-award and high in post-award); and MICC-Fort Sam received an overall low (low in pre-award and medium in post-award).

F.   SUMMARY

This chapter included a discussion on the Army Materiel Command (AMC) and the Army Contracting Command (ACC), one of AMC's major subordinate commands. It also focused on the Mission and Installation Contracting Command (MICC) and provided an overview of the organizations assessed for this research, MICC FDO-FSH and ACC-ORL. The next chapter discusses the findings and analysis based on the assessment of the ACC-ORL and MICC FDO-FSH acquisition workforces.

IV. FINDINGS AND ANALYSIS

A. INTRODUCTION

The previous chapters explained the need for Department of Defense (DOD) contract management workforce improvements, explained the new competency framework that will be used to develop and train the workforce, and discussed Mission and Installation Contracting Command Field Directorate Office-Fort Sam Houston (MICC FDO-FSH) and Army Contracting Command-Orlando (ACC-ORL) as the subjects of this research. This chapter starts with an explanation of the Contracting Workforce Competency Assessment developed by Rendon using the National Contract Management Association (NCMA) Contract Management Standard (CMS) as a guide (Rendon & Schwartz, 2020). The assessment was deployed to the MICC FDO-FSH and ACC-ORL contracting workforces. Next, the demographics of each organization are discussed individually and then compared to each other. Following the demographics is an analysis of the competency ratings, which focused on buyer proficiency and seller knowledge for ACC-ORL and MICC FDO-FSH. In addition, we provide a comparison of the two organizations competency ratings. The ACC-ORL and MICC FDO-FSH results are then compared to the procurement management oversight activities for the organizations. Lastly, recommendations are provided based on insight gained from the analysis.

B. ASSESSMENT DEVELOPMENT AND DEPLOYMENT

In FY20, Rendon developed a Naval Postgraduate School Institutional Review Board approved competency assessment instrument to assess contract management workforce competencies based on the NCMA CMS framework (Rendon & Schwartz, 2020). Since that time, the assessment has been deployed at the Marine Corps Systems Command and analysis of the findings by Hayashi and Pfannenstiel (2020). The assessment focused on the job tasks that align to the contract life cycle phases of pre-award, award, and post-award from both buyer proficiency and seller knowledge perspectives (Rendon & Schwartz, 2020). The assessment deployed, to conduct this research, was based on the previously mentioned assessment and is comprised of three sections: demographics, buyer

proficiency competencies, and seller knowledge competencies. The assessment was deployed by email to the workforces with a link to the assessment instrument. At least two weeks were provided for the workforces to respond to the assessment. It required respondents to answer on a scale how proficient and knowledgeable they are in a particular task.

The purpose of this assessment was to assess the competencies of the ACC-ORL and MICC FDO-FSH contracting workforces against the NCMA CMS. As discussed in the Literature Review chapter, there is a shift in how the contracting workforce will be trained. The Defense Acquisition Workforce Improvement Act (DAWIA) Level I-III certification program will phase-out and be replaced with a certification program that is aligned under the NCMA CMS. The assessment captured the current buyer proficiency and seller knowledge competencies of the contracting workforce against the NCMA CMS to determine where, if any, there are proficiency gaps for buyer tasks and knowledge gaps for seller tasks.

The assessment was designed for anonymous contract management workforce participants to respond to competency statements regarding their self-assessed proficiency levels in performing buyer tasks and their knowledge of seller tasks within each of the associated domains (Rendon & Schwartz, 2020). The buyer segment of the assessment is composed of competency statements about the following specific job tasks: Plan Solicitation, Request Offer, Price or Cost Analysis, Plan Negotiations, Select Source, Manage Disagreements, Administer Contract, Ensure Quality, Manage Changes, and Closeout Contract (NCMA, 2019). The seller segment of the assessment is composed of competency statements regarding the following specific job tasks: Plan Sales, Prepare Offer, Plan Negotiations, Select Source, Manage Disagreements, Administer Contract, Ensure Quality, Manage Subcontracts, Manage Changes, and Closeout Contract (NCMA, 2019). These competencies are further defined and identified in the CMBOK and will be used throughout this paper. Participants of the survey rated each statement using the Likert scales described in Tables 2 and 3. These proficiency and knowledge level definitions will be used throughout this paper.

Table 2.   Buyer Proficiency Levels.
Adapted from Rendon (2020).

Proficiency Level	Definition
(1) Aware	"Applies the competency in the simplest situations and requires close and extensive guidance"
(2) Basic	"Applies the competency in somewhat difficult situations and requires frequent guidance"
(3) Intermediate	"Applies the competency in difficult situations and requires little or no guidance"
(4) Advanced	"Applies the competency in considerably difficult situations and generally requires no guidance"
(5) Expert	"Applies the competency in exceptionally difficult situations and involves serving as a key resource and advises others"
N/A	"Not applicable/not needed in my job"

Table 3.   Seller Knowledge Levels.
Adapted from Rendon (2020).

Knowledge Level	Definition
(1) None	"I am not aware of this Contractor competency"
(2) Aware	"I am aware but have no knowledge of this Contractor competency"
(3) Basic	"I have basic-level knowledge of this Contractor competency"
(4) Intermediate	"I have intermediate-level knowledge of this Contractor competency"
(5) Advanced	"I have advanced-level knowledge of this Contractor competency"

C.   DEMOGRAPHICS

Demographic questions were asked to ensure the research team could make comparative analyses across contract management experience levels (by years), DAWIA certification levels, years within the organization, professional certifications, and if the respondent is a warranted Procuring Contracting Officer (PCO). The professional certifications assessed are NCMA certifications: Certified Federal Contract Manager

(CFCM), Certified Commercial Contract Manager (CCCM), and Certified Professional Contract Manager (CPCM).

1. Army Contracting Command-Orlando

The assessment was sent to 138 contracting professionals within ACC-ORL. No interns were included as they had not begun to perform contract actions yet. Of the 138 contracting personnel, the number of respondents ranged from 46–53 based on the number of respondents that started the assessment and the number of respondents that completed the assessment. The response rate ranged from 33% to 38%. It is assumed that some people decided not to complete the survey after opening or beginning it.

The breakout of DAWIA certification levels of the ACC-ORL respondents are shown in Table 4. Fifty-two of the fifty-three respondents are Level III DAWIA certified while one is level I certified. This is likely due to ACC-ORL participating in Acquisition Demo which makes most contract specialists in the NH-1102-03 band which is equivalent to General Schedule (GS)-12/13 and supervisor levels in the NH-1102-04 band which is equivalent to GS-14/15. Higher GS level positions require a DAWIA level III certification at ACC-ORL.

The years of experience in contract management of the responses received for ACC-ORL are shown in Table 4. The majority (24) of the respondents had 9–13 years of experience. One person had less than three years of experience, two people had 4–8, ten had 14–18, and sixteen had 19 years or more of experience. This result aligns with the level certifications as only one person was not level III certified. ACC-ORL requires all contract specialist to gain level III certification, on average this takes 3–4 years to accomplish. Additionally, 26 participants indicated that they are PCOs, which means that they hold warrants to allow them to bind the United States Army to a contract.

Table 4 shows the years the respondents have been at ACC-ORL. While the majority (19) of the respondents have been at ACC-ORL for less than three years, 28 people have been there between 4 and 13 years. Six respondents have been at ACC-ORL for 14 or more years. These are experienced, contracting workforce personnel that have level III certification at the same organization for 4 to 13 years.

As shown in Table 4, 16 of the 53 respondents had other professional certifications. Four people had the CFCM while 12 others assessed the "Other" category. The CFCM is for contracting professionals "supporting federal government initiatives, based on the Federal Acquisition Regulation" (NCMA, n.d.-b, chart 1). This certification requires two years or more work experience and 80 or more hours of professional education. The CPCM, CFCM, and CCCM all have an application and exam fee and are not required for the Federal contracting workforce. This is reflected in the minimal number of respondents that have the certifications.

Table 4.   ACC-ORL Contracting Workforce Competency Assessment Demographic Results

DAWIA Level Certification			Contract Management Years of Experience	
None	0		3 or Less	1
Level I	1		4 to 8	2
Level II	0		9 to 13	24
Level III	52		14 to 18	10
			19 or more	16
PCO	26			
			Years in Organization	
Professional Certifications			3 or Less	19
CFCM	4		4 to 8	13
CCCM	0		9 to 13	15
CPCM	0		14 to 18	3
Other	12		19 or more	3

2. Mission Installation Contracting Command Field Directorate Office-Fort Sam Houston

The assessment was sent to 147 contracting professionals within MICC FDO-FSH, Of the 147 personnel, the number of respondents ranged from 50–53 based on the number of respondents that started the assessment and the number of respondents that completed the assessment. The response rate ranged from 34% to 36%. As with ACC-ORL, it is assumed that some people decided not to complete the survey after opening or beginning it.

The breakout of DAWIA certification levels of the MICC-FSH FDO respondents is shown in Table 5. Of the 53 that responded to this question, 33 are Level III certified, while 11 are Level II and 6 are level I certified. The numbers for Level I (6) and II (11) closely align with the 16 personnel with years of experience noted at 3 years or less and 4 to 8 years.

Table 5 shows the years of experience in contract management of the responses received for MICC FDO-FSH. The majority (17) of the respondents had 9–13 years of experience. Nine people had less than three years of experience, seven people had 4 to 8, nine had 14 to 18, and eleven had 19 years or more of experience. Additionally, 20 participants indicated that they are a PCO, which means that they hold warrants from MICC FDO-FSH to bind the United States Army to a contract.

Table 5 shows the years the respondents have been at MICC FDO-FSH. While the majority (21) of the respondents have been at MICC FDO-FSH for less than three years, 28 people have been there between 4 and 13 years. Two respondents have been at MICC FDO-FSH for 14 or more years and only one has 19 or more years with MICC FDO-FSH.

As shown in Table 5, nine of the 53 respondents had other professional certifications. Four people have CFCM, three people have CCCM, and two people CPCM. As compared to the number of reported DAWIA certifications, this is a low number of reported professional certifications. It may be due to the costs associated with application and exam fees or the potential misconception that the NCMA certifications are only for the non-government workforce.

Table 5.   MICC FDO-FSH Workforce Competency Assessment Demographic Results

DAWIA Level Certification			Contract Management (CM) Years of Experience	
None	0		3 or Less	9
Level I	6		4 to 8	7
Level II	11		9 to 13	17
Level III	33		14 to 18	9
			19 or more	11
PCO	20			
			Years in Organization	
Professional Certifications			3 or Less	21
CFCM	4		4 to 8	14
CCCM	3		9 to 13	14
CPCM	2		14 to 18	2
Other	0		19 or more	1

3. Compared ACC-ORL and MICC FDO-FSH

Of the total 106 respondents, three do not have a DAWIA certification, seven are Level I, eleven are Level II, and eighty-five are Level III certified. Figure 4 shows that, in comparison, significantly more Level III certified responded from ACC-ORL than MICC FDO-FSH. However, MICC FDO-FSH had a more diverse respondent group as it relates to the DAWIA certification level. The lack of ACC-ORL respondents with no DAWIA level certification is likely due to ACC-ORL not including interns in the assessment.
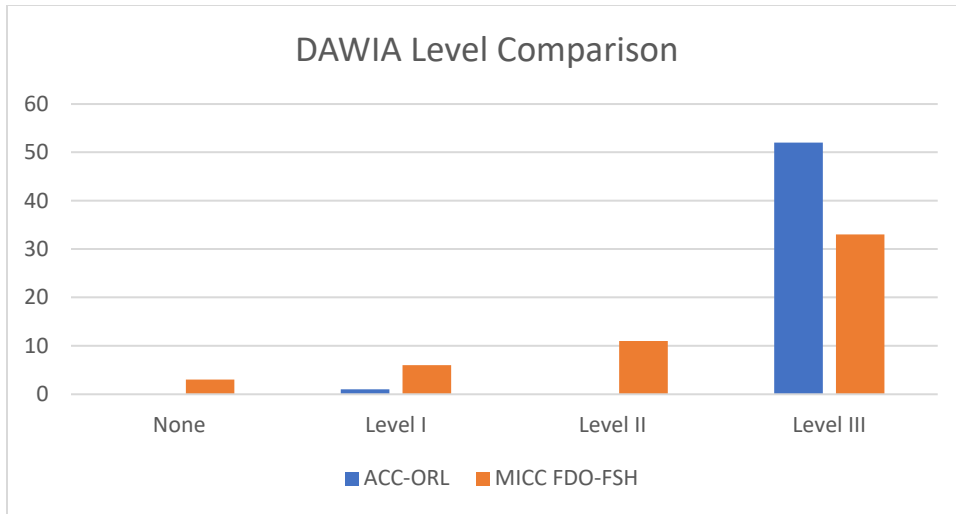
Figure 4.   DAWIA Level Certification Comparison

As shown in Figure 5, the majority (41) of the respondents across ACC-ORL and MICC FDO-FSH had 9–13 years of experience. Ten people had less than three years of experience, nine people had 4–8, nineteen had 14–18, and twenty-seven had 19 years or more of experience. The combined results show there is a wide range in years of experience of those assessed. MICC FDO-FSH had more respondents in the lower years of experience categories while ACC-ORL had more in the higher years of experience categories.
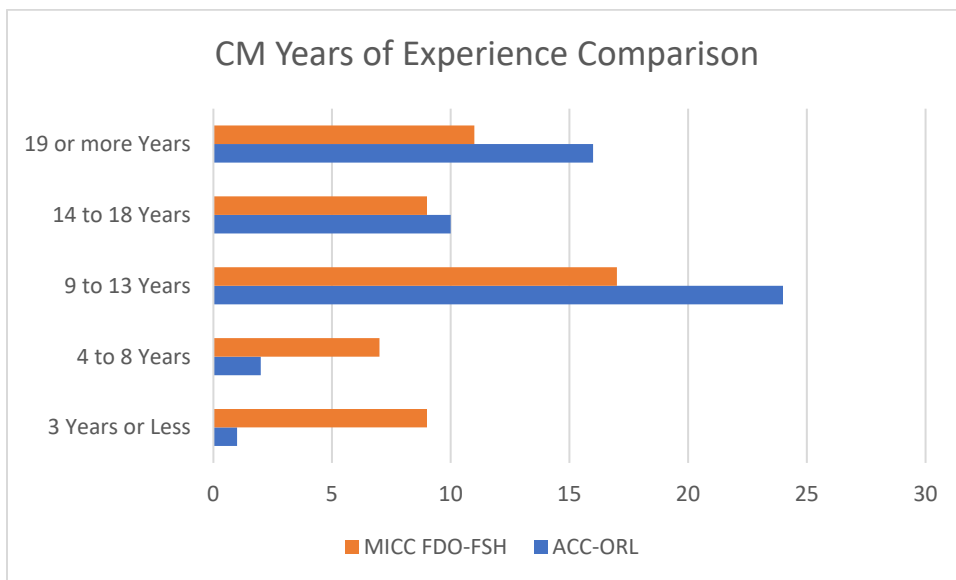

Figure 5.   Contract Management Years of Experience Comparison

The majority (40) of the respondents across ACC-ORL and MICC FDO-FSH had three years or less at their respective organization. Twenty-seven and twenty-nine respondents have 4 to 8 years and 9 to 13 years, respectively, at their organization while only nine had more than 14 years. Figure 6 shows that the organizations were comparable in the number of years the respondents have at their organization. ACC-ORL has slightly more respondents in the higher number of years while MICC FDO-FSH has slightly more respondents in the lower number of years.
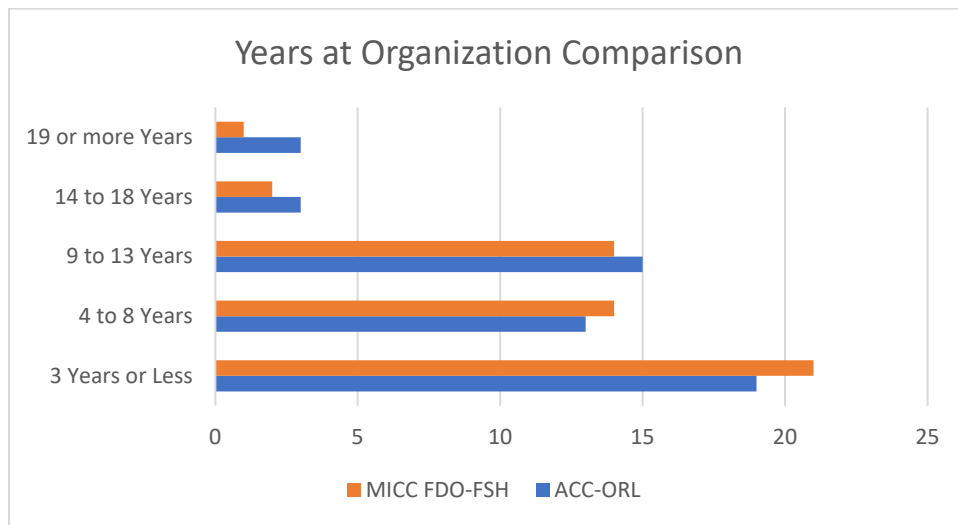

Figure 6.   Years at Organization Comparison

A total of 25 respondents had professional certifications. Eight respondents earned the CFCM, three earned the CCCM, two earned the CPCM, and 12 others earned another certification. The CFCM and CCCM require more than two years of work experience and 80 hours of professional education, while the CPCM requires more than five years of experience and 120 hours of professional education. As shown in Figure 7, MICC FDO-FSH has significantly more respondents with NCMA certifications (CFCM, CCCM, and CPCM) with nine while ACC-ORL had four total and only for CFCM. ACC-ORL had 12 respondents with "Other" professional certifications but no more information is known.
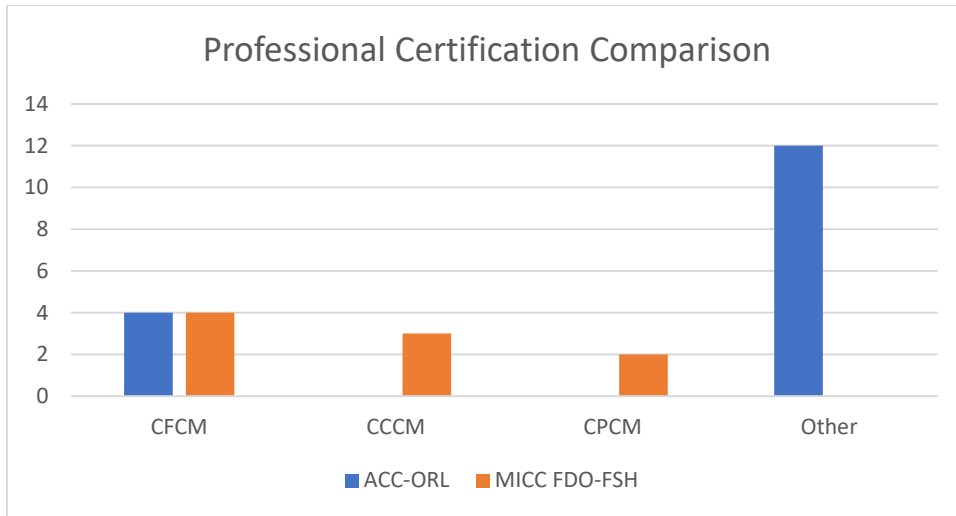
Figure 7.   Professional Certification Comparison

Figure 8 shows the number of respondents with and without PCO warrants at the organizations. Each organization had up to 53 respondents but there is a difference of six between those that are warranted at ACC-ORL versus MICC FDO-FSH. This coupled with the significantly higher respondents with Level III certification implies that more senior level employees responded to the ACC-ORL versus the MICC FDO-FSH assessments.

Figure 8.   Warranted vs. Non-warranted Respondents Comparison

D. ANALYSIS OF COMPETENCIES

1. Army Contracting Command-Orlando
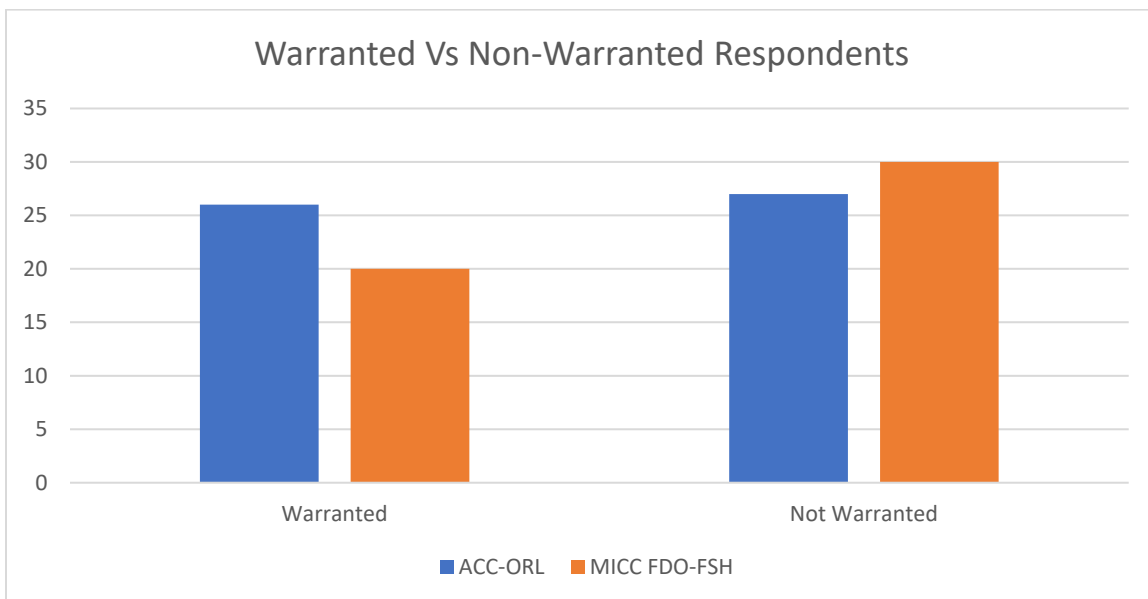
a. Buyer Competencies

Most (8 out of 10) buyer proficiency ratings were between Advanced and Expert with higher ratings for pre-award and award functions compared to the ratings for the post-award functions. The average proficiency ratings for all competencies is 4.19, which falls within the Advanced proficiency rating. Figure 9 shows the buyer proficiency ratings for the individual aspects of pre-award, award, and post-award discussed in detail next.
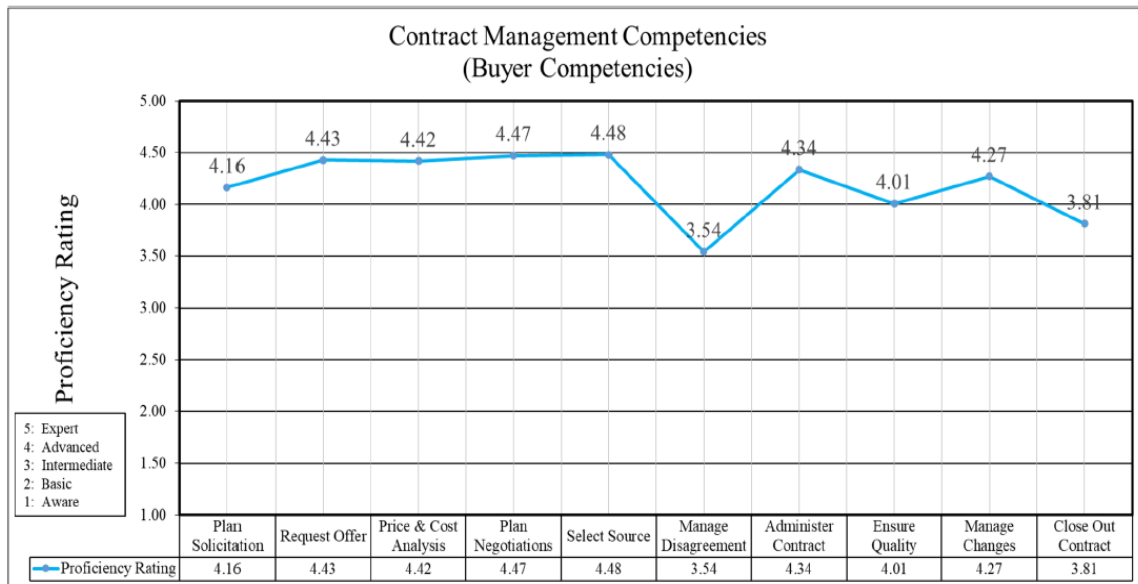
Figure 9. ACC-ORL Buyer Competencies

i. *Pre-Award Process: Plan Solicitation and Request Offer*

The findings show that the average buyer proficiency rating for pre-award process competencies is 4.30, which is the highest average proficiency rating for ACC-ORL. The ACC-ORL workforce respondents self-assessed between Advanced and Expert proficiency ratings for Plan Solicitation (4.16) and Request Offer (4.43), with Plan Solicitation being slightly lower. Based on the rating schema in the assessment, the ACC-ORL contracting

workforce respondents can perform the pre-award jobs tasks in considerably difficult situations and generally requires no guidance.

ii. Award Process: Price and Cost Analysis, Plan Negotiations, Select Source, and Manage Disagreements

The average proficiency rating for award process competencies is 4.23, which is the second highest average proficiency rating for ACC-ORL. The ACC-ORL respondents self-assessed mid-way between Advanced and Expert for Price and Cost Analysis (4.42), Plan Negotiations (4.47), and Select Source (4.48) while much lower (3.54), at the mid-way point between Intermediate and Advanced, for Manage Disagreements. Based on the rating schema in the assessment, the findings show the ACC-ORL contracting workforce respondents can perform the award jobs tasks in considerably difficult situations and generally requires no guidance.

iii. Post-Award Process: Administer Contract, Ensure Quality, Manage Changes, and Closeout Contract

The findings show the average proficiency rating for post-award process competencies is 4.11, which is the lowest average proficiency rating for ACC-ORL. The ACC-ORL respondents self-assessed closer to Advanced for Administer Contract (4.34), Ensure Quality (4.01) and Manage Changes (4.27), while much lower (3.81) for Closeout Contract. Based on the rating schema in the assessment, the ACC-ORL contracting workforce respondents can perform the post-award jobs tasks in considerably difficult situations and generally requires no guidance.

b. Seller Competencies

Based on the findings, all of the seller knowledge ratings ranged between 3.05 and 3.84. The average knowledge ratings for all competencies is 3.41, which falls within the Basic category. Figure 10 shows the seller knowledge ratings for the individual aspects of pre-award, award, and post-award discussed in detail next.
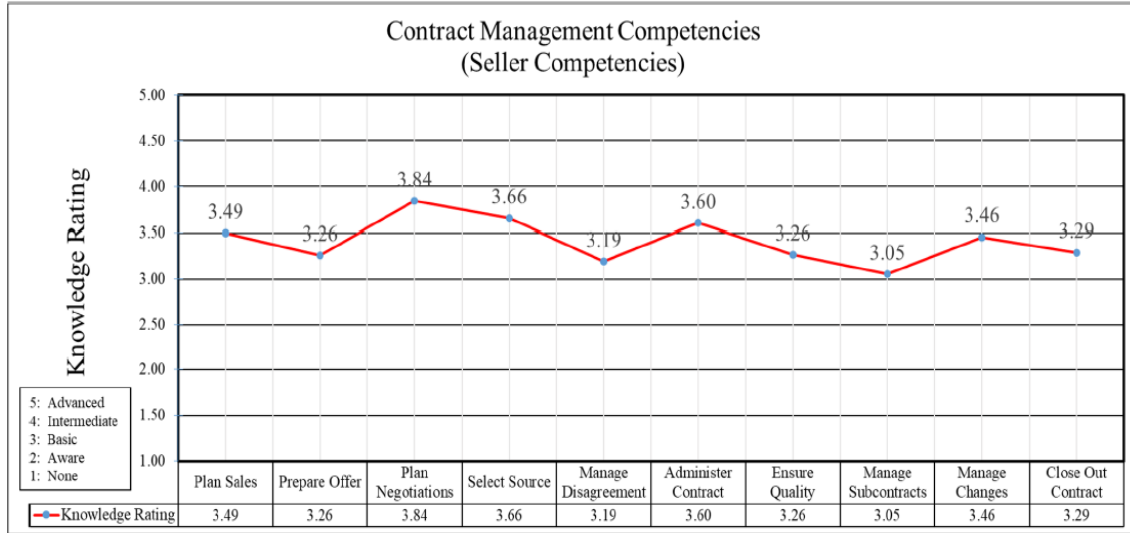
Figure 10.   ACC-ORL Seller Competencies

i.   *Pre-Award Process: Plan Sales and Prepare Offer*

The findings show the average knowledge rating for pre-award process is 3.38, which is the second highest average knowledge rating for ACC-ORL. The ACC-ORL workforce respondents self-assessed between Basic and Intermediate knowledge levels for Plan Sales (3.49) and Prepare Offer (3.26), with Prepare Offer being slightly lower. Based on the rating schema in the assessment, the ACC-ORL contracting workforce respondents have a basic-level knowledge of this seller competency.

ii.   *Award Process: Plan Negotiations, Select Source, and Manage Disagreements*

The average knowledge rating for award process is 3.56, which is the highest average knowledge rating for ACC-ORL. The findings show Manage Disagreements has the second lowest seller (3.19) competencies. The ACC-ORL workforce respondents self-assessed between Basic and Intermediate knowledge levels for Plan Negotiations (3.84), Select Source (3.66), and Manage Disagreements (3.19). Based on the rating schema in the assessment, the ACC-ORL contracting workforce respondents have a basic-level knowledge of this seller competency.

iii. *Post-Award Process: Administer Contract, Ensure Quality, Manage Subcontracts, Manage Changes, and Closeout Contract*

The average knowledge rating for post-award process is 3.33, which is the lowest average knowledge rating for ACC-ORL. The ACC-ORL workforce respondents self-assessed between Basic and Intermediate knowledge levels for Administer Contract (3.60), Ensure Quality (3.26), Manage Subcontracts (3.05), Manage Changes (3.46), and Closeout Contract (3.29). Based on the rating schema in the assessment, the ACC-ORL contracting workforce respondents have a basic-level knowledge of this seller competency.

c. Discussion of Findings

The high average ACC-ORL buyer proficiency ratings (Advanced) for all competencies are likely attributed to the years of contract management experience reported by the respondents (50 of 53 have more than nine years), high percentage (98%) of the respondents being DAWIA Level III certified, the requirement for continuous task-specific training, and mandatory continuous learning points each continuous learning cycle.

The higher pre-award and award process proficiency ratings (between Advanced and Expert) and lower post-award proficiency ratings are likely due to a history of reduced focus on contract administration. Historically, the pre-award and award phases of contract management have been the focus of senior management. Pre-award and award functions lead to the obligation of funds and the contracting workforce has been measured against this data point. Further, contracting workforce personnel can also gain experience in the pre-award job tasks during the post-award process. The post-award process can include similar job tasks to those in the pre-award process. Through execution of modifications the contracting workforce gains experience in Plan Solicitation, Request Offer, and Price and Cost Analysis.

The outlier within the pre-award and award process buyer proficiency ratings is Manage Disagreements with a rating between Intermediate and Advanced. The findings show Manage Disagreements is the lowest ACC-ORL buyer proficiency rating and the second lowest seller knowledge rating. Given the level of experience within the ACC-ORL workforce respondents, this was initially surprising because there is an expectation that

more experienced contracting workforce personnel would have experienced disagreements at one point or another during their contracting career. Upon further review, this low rating may be attributed to the fact that only half of the respondents are warranted PCOs, as opposed to contract specialists who are more likely to defer to the warranted PCO when disagreement and conflicts arise. Another possible explanation for the low Manage Disagreements competency rating is that the contracting workforce often defers to attorneys when handling protests and disagreements that occur during the award phase but have not yet reached the point of protest.

The lower post-award process buyer proficiency rating of 3.81 for Closeout Contract with ACC-ORL is not surprising as contract closeout has not been a priority within the DOD and, now that it is a priority, there is a team whose focus is contract closeout. As such, the experience of contract closeout is not spread throughout the organization. A noteworthy nuance to "Administer Contract" is that it could fall into pre- and post-award as modifications are performed post-award but there are pre-award functions associated with the modification.

Based on the rating schema in the assessment, the ACC-ORL workforce respondents have a basic-level knowledge of seller competencies in pre-award, award, and post-award processes. This indicates that guidance would be necessary to understand these types of tasks. All ACC-ORL seller knowledge ratings fall between Basic and Intermediate. These lower seller competency ratings are expected because the Federal contracting workforce is predominantly trained on the Federal Acquisition Regulation and its supplements, which are focused on the buyer activities and not the seller activities. It is not known what level of experience, if any, the ACC-ORL respondents have on the industry side of contracting but the lower seller knowledge rating responses indicate it is less than in government contracting (buyer function). Twenty-one respondents have 9 or more years of experience within the organization, indicating a lower level of industry contracting experience. Given the lack of professional certifications (four of 53 or 8%) and high years of experience within the organization, we expected lower seller knowledge ratings for pre-award functions. We did not expect this for the award and post-award processes because the buyer and seller have many joint responsibilities.

The findings show the lowest rated seller knowledge rating is for Manage Subcontracts and highest is for Plan Negotiations. The Manage Subcontracts rating is understandable as those in government contracting do not generally have privity of contract with subcontractors and, therefore, do not manage subcontracts. As such, managing subcontracts is not a common knowledge area for government contracting personnel. Plan Negotiations is one of the three joint responsibilities shared between the buyer and seller with Select Source and Manage Disagreements being the other two. The shared functions between the buyer and seller are likely the reason for the higher ratings, closer to Intermediate.

2. Mission Installation Contracting Command Field Directorate Office-Fort Sam Houston

a. Buyer Competencies

Most (8 out of 10) proficiency ratings are between Intermediate and Advanced with similar ratings across pre-award, award functions and post-award functions. The average proficiency ratings for all competencies is 3.86, which falls within the Intermediate category. Figure 11 shows the buyer proficiency ratings for the individual aspects of pre-award, award, and post-award discussed in detail next.

Figure 11.   MICC FDO-FSH Buyer Competencies

i.   *Pre-Award Process: Plan Solicitation and Request Offer*

The findings show the average proficiency rating for pre-award process competencies is 3.96, which is the highest average proficiency rating for MICC FDO-FSH. The MICC FDO-FSH workforce respondents self-assessed between Intermediate and Advanced proficiency ratings for Plan Solicitation (3.89) and Request Offer (4.02), with Plan Solicitation being slightly lower. Based on the rating schema in the assessment, the MICC FDO-FSH contracting workforce respondents can perform the pre-award jobs tasks in difficult situations and requires little or no guidance.

ii.   *Award Process: Price and Cost Analysis, Plan Negotiations, Select Source, and Manage Disagreements*

The average proficiency rating for award process competencies is 3.78, which is the lowest average proficiency rating for MICC FDO-FSH. The MICC FDO-FSH respondents self-assessed on the high-end of Intermediate for Price and Cost Analysis (3.76), Plan Negotiations (3.89), and Select Source (3.99), while lower (3.49) at around the mid-way point between Intermediate and Advanced for Manage Disagreements. Based on

the rating schema in the assessment, the MICC FDO-FSH contracting workforce respondents can perform the award job tasks in difficult situations and requires little or no guidance.

iii. *Post-Award Process: Administer Contract, Ensure Quality, Manage Changes, and Closeout Contract*

The average proficiency rating for post-award process competencies is 3.89, which is the second highest average proficiency rating for MICC FDO-FSH. The MICC FDO-FSH respondents self-assessed on the high-end of Intermediate for Administer Contract (3.96), Ensure Quality (3.78) and Closeout (3.81), while Manage Changes (4.02) is at the low-end of Advanced. Based on the rating schema in the assessment, the MICC FDO-FSH contracting workforce respondents can perform the post-award job tasks in difficult situations and requires little or no guidance.

b. Seller Competencies

Based on the findings, all of the seller knowledge ratings ranged between 2.90 and 3.61. The average knowledge rating for all competencies is 3.26, which falls within the Basic category. Figure 12 shows the seller knowledge ratings for the individual aspects of pre-award, award, and post-award discussed in detail next.
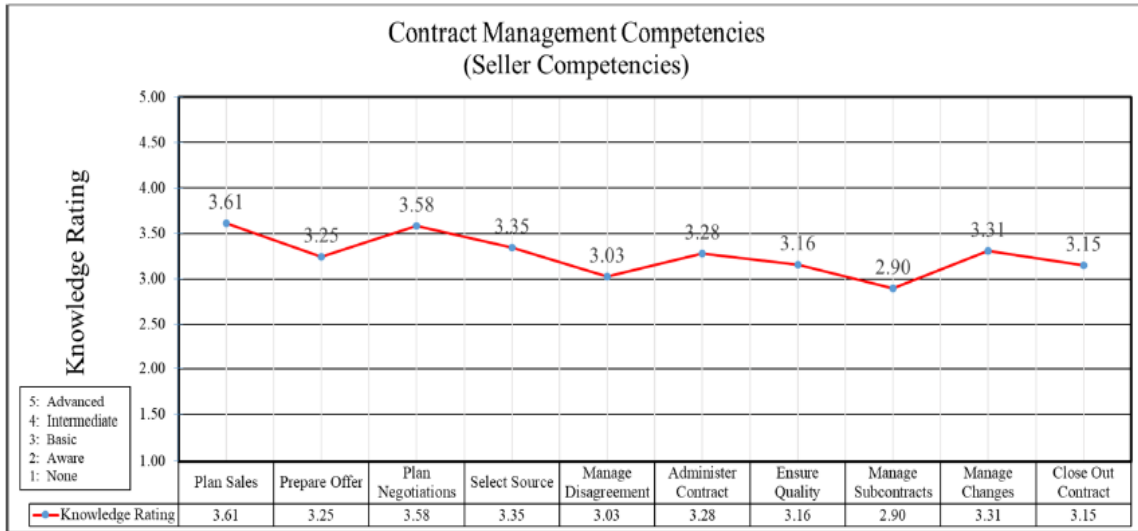
Figure 12.   MICC FDO-FSH Seller Competencies

i.   *Pre-Award Process: Plan Sales and Prepare Offer*

The findings show the average knowledge rating for pre-award process is 3.43, which is the highest average knowledge rating for MICC FDO-FSH. The MICC FDO-FSH workforce respondents self-assessed between Basic and Intermediate knowledge levels for Plan Sales (3.61) and Prepare Offer (3.25), with Prepare Offer being slightly lower. Based on the rating schema in the assessment, the MICC FDO-FSH contracting workforce respondents have a basic-level of knowledge of the pre-award related contractor competencies.

ii.   *Award Process: Plan Negotiations, Select Source, and Manage Disagreements*

The average knowledge rating for award process is 3.32, which is the second highest average knowledge rating for MICC FDO-FSH. The findings show Manage Disagreements has the lowest rating for both buyer (3.49) and seller (3.03) competencies. The MICC FDO-FSH workforce respondents self-assessed between Basic and Intermediate knowledge levels for Plan Negotiations (3.58), Select Source (3.35), and Manage Disagreements (3.03). Based on the rating schema in the assessment, the MICC

FDO-FSH contracting workforce respondents have a basic-level of knowledge of the award related contractor competencies.

iii. *Post-Award Process: Administer Contract, Ensure Quality, Manage Subcontracts, Manage Changes, and Closeout Contract*

The average knowledge rating for post-award process is 3.16, which is the lowest average proficiency rating for MICC FDO-FSH. The MICC FDO-FSH workforce respondents self-assessed between Aware and Intermediate knowledge levels for Administer Contract (3.28), Ensure Quality (3.16), Manage Subcontracts (2.90), Manage Changes (3.31), and Closeout Contract (3.15). Based on the rating schema in the assessment, the MICC FDO-FSH contracting workforce respondents have a basic-level of knowledge of the post-award related seller competencies.

c. Discussion of Findings

The lower MICC FDO-FSH buyer proficiency ratings are likely attributed to the lower number of years with contract management experience reported by the respondents (16 of 53 have 8 or less years) and 38% of respondents with less than DAWIA Level III certification.

The lower level of experience may also explain the slightly higher ratings for MICC FDO-FSH in the pre-award process (between Intermediate and Advanced) compared to the award and post-award processes. This is because the less experienced workforce is generally assigned the pre-award activities. Historically, the pre-award and award phases of contract management have been the focus of senior management. Pre-award and award functions lead to the obligation of funds and the contracting workforce has been measured against this data point. Further, contracting workforce personnel can gain experience in the pre-award job tasks during the post-award process because the post-award process can include similar job tasks to those in the pre-award process. Through execution of modifications the contracting workforce gains experience in Plan Solicitation, Request Offer, and Price and Cost Analysis. Another explanation is that new employees generally start learning the pre-award process prior to learning the award and post-award processes. Additionally, new employees start with simplified acquisitions and task/delivery orders

issued against existing contracts. The majority of the award tasks within the award competency are focused on complex source selection rather than simplified acquisitions and task/delivery orders.

An outlier within the pre-award and award process buyer proficiency ratings is Manage Disagreements with a rating between Intermediate and Advanced. The findings show that Manage Disagreement is the MICC FDO-FSH lowest buyer proficiency rating and second lowest seller knowledge rating. This is not surprising given the years of experience reported by the respondents because they haven't been in government contracting long enough to experience disagreements and manage them. Upon further review, this may be attributed to the fact that less than half of the respondents are warranted PCOs, as opposed to contract specialists who are more likely to defer to the warranted PCO when disagreement and conflicts arise. Another possible explanation to the low Manage Disagreement competency rating is that the contracting workforce defers to attorneys when handling protests. However, it should be noted that many disagreements occur during the award phase that may not necessarily reach the point of protest.

Based on the rating schema in the assessment, the MICC FDO-FSH contracting workforce have a basic-level knowledge of seller competencies in pre-award, award, and post-award processes. This indicates that guidance would be necessary to understand these types of tasks. All MICC FDO-FSH seller knowledge ratings fall between Basic and Intermediate. These lower seller competency ratings are expected because the Federal contracting workforce is predominantly trained on the Federal Acquisition Regulation and its supplements, which are focused on the buyer activities and not the seller activities. It is not known what level of experience, if any, the MICC FDO-FSH respondents have on the industry side of contracting but the lower seller knowledge rating responses indicate it is less than in government contracting (buyer function). Given the lack of professional certifications (nine of 53 or 17%), we expected lower knowledge ratings for these seller pre-award functions. We did not expect this for the award and post-award processes because the buyer and seller have many joint responsibilities during these phases.

The findings show the lowest seller knowledge rating is for Manage Subcontracts. This is understandable as those in government contracting do not generally have privity of

contract with subcontractors and, therefore, do not manage subcontracts. As such, managing subcontracts is not a common knowledge area for government contracting personnel, nor is it taught as a required course for obtaining DAWIA certifications.

3. Comparison of ACC-ORL and MICC FDO-FSH

a. Buyer Competencies

ACC-ORL respondents self-assessed higher than MICC FDO-FSH in all but Closeout Contract, where they are the same as MICC FDO-FSH respondents. The majority of the buyer competencies are rated between Advanced (4.0) and Expert (5.0) for ACC-ORL while MICC FDO-FSH self-assessed between Intermediate (3.0) and Advanced. The high proficiency ratings are likely attributed to the years of contract management experience reported by the respondents. Eighty-seven respondents have nine or more years of contract management experience. Figure 13 shows a comparison of buyer proficiency ratings for the individual aspects of pre-award, award, and post-award discussed in detail next.

Figure 13. Buyer Competency Comparison

i. Pre-Award Process: Plan Solicitation and Request Offer

The findings show the pre-award process is the highest average rating for both ACC-ORL and MICC FDO-FSH. The average proficiency rating for ACC-ORL is 4.30 while MICC FDO-FSH is 3.96.

ii. Award Process: Price and Cost Analysis, Plan Negotiations, Select Source, and Manage Disagreements

The award process is ACC-ORL's middle range process with an average proficiency rating of 4.23 while it is MICC FDO-FSH's lowest average at 3.78. The lower MICC FDO-FSH rating may be attributable to the less experience of the MICC FDO-FSH contracting workforce respondents. New employees generally start learning the pre-award process prior to learning the award and post-award processes. Additionally, new employees start with less complex, simplified acquisitions and task/delivery orders that are issued against existing contracts. The majority of the award tasks within the award competency process are focused on complex source selection rather than simplified acquisitions and task/delivery orders.

Although ACC-ORL's buyer proficiency ratings are higher than MICC FDO-FSH, it is interesting to note that both organizations lowest buyer proficiency rating was Manage Disagreements. This may be attributed to the fact that only half of less of the ACC-ORL and MICC FDO-FSH respondents are warranted PCOs, as opposed to contract specialists who are more likely defer to the warranted PCO when disagreement and conflicts arise. Another possible explanation to the low Manage Disagreement competency rating is that the contracting workforce defers to attorneys when handling protests. However, it should be noted that many disagreements occur during the award phase that may not necessarily reach the point of protest.

iii. Post-Award Process: Administer Contract, Ensure Quality, Manage Changes, and Closeout Contract

The post-award process is MICC FDO-FSH's middle range process with an average proficiency rating of 3.89 while it is ACC-ORL's lowest average with 4.11. ACC-ORL self-assessed within the Advanced category for Administer Contract (4.34) compared to

MICC-FDO's 3.96 (Intermediate). ACC-ORL self-assessed within the Advanced category for Ensure Quality (4.01) compared to MICC-FDO's 3.78 (Intermediate). ACC-ORL self-assessed within the Advanced category for Manage Changes (4.27) compared to MICC-FDO's 4.02 (Advanced). ACC-ORL and MICC-FDO-FSH self-assessed within the Intermediate category for Closeout Contract (3.81). Based on the findings, it is clear that the ACC-ORL respondents have a higher level of confidence in their abilities to perform these tasks than the MICC FDO-FSH respondents. This could be due to the MICC FDO-FSH workforce demographic reporting fewer years of experience.

b. Seller Competencies

Based on the assessment findings, all MICC FDO-FSH and ACC-ORL knowledge ratings were between Basic and Intermediate knowledge. This indicates that guidance would be necessary to understand these types of tasks. Figure 14 shows a comparison of seller knowledge ratings for the individual aspects of pre-award, award, and post-award discussed in detail next.

Figure 14.   Seller Competency Comparison

i. Pre-Award Process: Plan Sales and Prepare Offer

Based on the findings, the pre-award process is the middle range average knowledge rating for ACC-ORL at 3.38, while it is MICC FDO-FSH's highest average at 3.43. It is surprising that this is MICC FDO-FSH's highest average seller process rating because neither task has joint responsibility with the government contracting personnel, so a lower knowledge level was expected.

ii. Award Process: Plan Negotiations, Select Source, and Manage Disagreements

The award process is the middle range average knowledge rating for MICC FDO-FSH at 3.32, while it is ACC's highest average at 3.56. The fact that this is not MICC FDO-FSH highest average rating is interesting as the award process shares aspects of the buyer competencies, but it does align with the low buyer competency proficiency rating in this area.

iii. Post-Award Process: Administer Contract, Ensure Quality, Manage Subcontracts, Manage Changes, and Closeout Contract

The post-award process is the lowest average rating for both ACC-ORL and MICC FDO-FSH. The average knowledge ratings for ACC-ORL is 3.33 while MICC FDO-FSH is 3.16. In addition, the Manage Subcontracts competency area was the lowest knowledge rating for both organizations.

As discussed in the literature review, the Army contracting organizations conduct procurement oversight activities to ensure the organizations are compliant with laws, statutes, and regulations. The oversight activities include Contract Review Boards (CRB), Procurement Management Reviews (PMR), Self-Assessment Reviews (SAR), and Contract Management Reviews (CMR). The next section will compare the buyer competencies with these oversight activities.

B. COMPARISON OF BUYER COMPETENCIES WITH AGENCY PROCUREMENT MANAGEMENT OVERSIGHT ACTIVITIES

Army procurement management oversight activities can include PMR and CMR. These reviews are conducted to ensure compliance with policies, procedures, and regulations applicable to the organizations. Below is a comparison of the assessment buyer

knowledge competencies with the PMR and CMR results. The pre-award and award processes are combined in the PMR and CMR pre-award contract execution rating.

1. Army Contracting Command-Orlando

The findings from the ACC-ORL assessment show buyer proficiency ratings between 3.54 and 4.48 or Intermediate and Advanced for the pre-award process functions and award process functions. This aligns with the 2019 PMR results which show Low risk for pre-award contract execution and the FY21 1st Quarter CMR results which also shows a Low risk for pre-award. A low-risk rating is 86% or greater which is based on the severity rating assigned to the questions. Manage Disagreements was the low point for ACC-ORL's assessment results with a proficiency rating between Intermediate and Advanced. There is no comparison to this competency within the PMR or CMR.

The ACC-ORL 2019 PMR results show Low risk for post-award process contract execution but Medium risk for Quality Assurance. The ACC-ORL FY21 1st Quarter CMR results also show a Low risk for post-award. This CMR results actually have a higher measure of compliance than the pre-award. This could be attributed to the recent implementation of post-award stand-down days, which focus on post-award functions like Contracting Officer Representative appointment which assist in administration of the contract and quality assurance and contract closeouts.

2. Mission Installation Contracting Command Field Directorate Office-Fort Sam Houston

The findings for the MICC FDO-FSH assessment show buyer proficiency ratings between 3.49 and 4.02 or Intermediate to Advanced for all pre-award and award process functions. The highest proficiency rating is specific to Requesting Offer, which fall within the pre-award process functions. This aligns with the 2018 MICC FDO-FSH PMR results which shows the directorate office rated as being Low risk for pre-award contract execution. A low risk rating is 86% or greater which is based on the severity rating assigned to the questions. Feedback from 10 of 15 PCOs show that 80–90% of the respondents are well versed in developing requirements that promote effective competition and they have

experience in the source selection process and the award of Indefinite Delivery/Indefinite Quantity contracts.

However, the lowest overall proficiency rating, which falls within the award process, is Manage Disagreements. In the 2018 MICC FDO-FSH PMR, a best practice to combat this competency is noted. It states, the MICC-FSH Deputy Director and warranted PCOs hold quarterly off-site meetings with all GS-12's and 13's to discuss contracting challenges that they would otherwise not know about in an effort to brainstorm solutions and to smooth out the contracting process. Practices like this may lead to higher competency ratings in future self-assessments.

The MICC FDO-FSH assessment results were between 3.78 and 4.02 or Intermediate to Advanced for all post-award process functions. The 2018 MICC FDO-FSH PMR results which shows the directorate office rated as being Medium risk for post-award contract execution. A medium risk rating is 60–86% which is based on the severity rating assigned to the questions. The highest ratings were related to managing changes. This rating may be attributed to the large number of modifications and change orders MICC FDO-FSH executes each year.

Based on the workforce competency assessment for both ACC-ORL and MICC FDO-FSH, our research identified recommendations for competency improvements for both of these organizations. Recommendations for maintaining contract management competencies and improving of the contracting competencies will be discussed next.

C.   RECOMMENDATIONS

This section contains focused recommendations based on the assessment results analysis. The recommendations are divided into two categories: Maintaining Contract Management Competencies and Improving Contract Management Competencies.

1. Maintaining Contract Management Competencies

The assessment findings revealed that both organizations self-assessed Intermediate to Advanced proficiency ratings on the buyer competencies to include Plan Solicitation, Request Offer, Price and Cost Analysis, Plan Negotiations, Select Source,

Manage Disagreements, Administer Contract, Ensure Quality, Manage Changes, and Closeout Contract. This indicates that the leadership within the organizations are focused on employing a capable and competent workforce. Our first recommendation is that ACC-ORL and MICC FDO-FSH organizations should focus on the education and training with an emphasis on the NCMA CMS. This education and training should emphasize the CMS Guiding Principles to establish the competencies that are applicable throughout all phases of the contract management life cycle for both buyers and sellers and focusing on competencies in the pre-award, award, and post-award job tasks identified in the CMS. This education and training should focus on proficiency in performing buyer tasks and knowledge of the seller tasks.

2. Improving Contract Management Competencies

The assessment findings revealed the need to improve the MICC FDO-FSH buyer proficiency competencies and that both ACC-ORL and MICC FDO-FSH need to improve seller knowledge competencies and the Manage Disagreements competency.

The assessment findings revealed that MICC FDO-FSH respondents had lower buyer proficiency ratings than ACC-ORL respondents in all but one competency, Closeout Contract, and had the same rating in that one. Our second recommendation is that MICC FDO-FSH could provide additional education and training courses to the existing workforce to gain a better understanding of the buyer activities. Our third recommendation is that MICC FDO-FSH attempt to hire more experienced contracting workforce personnel as a lack of education and training due to the lower number of years' experience is an explanation for the lower buyer proficiency ratings.

The assessment findings revealed that both organization knowledge ratings of the seller activities were lower than the proficiency ratings for the buyer activities. Given the lower seller competency ratings, this indicates that the contracting workforce needs training on the seller competencies. Our fourth recommendation is that ACC-ORL and MICC FDO-FSH leadership implement initiatives and provide training that will allow contracting workforce members to gain a better understanding of seller activities. The Army should base its education and training on the Contract Management Body of

Knowledge (CMBOK), which includes the NCMA CMS. This could include partnering with NCMA or sponsoring training sessions to provide training on the CMBOK. DOD could also allow for contract management workforce training alongside industry partners to further their knowledge of seller tasks.

The assessment findings show that Manage Disagreements was low for buyer proficiency and seller knowledge for both organizations. It was the lowest buyer proficiency rating for both ACC-ORL and MICC FDO-FSH and second lowest knowledge rating for both organizations. Our fifth recommendation is for each organization to offer focused education and training on critical thinking, problem solving, decision making, and conflict resolution to address the consistently low Manage Disagreements competency. This focused training should help improve buyer proficiency and seller knowledge of Manage Disagreements for both organizations resulting in the resolution of issues, informally or formally, related to the solicitation or source selection process before they become contentious or get protested (NCMA, 2019). To better gauge the level of competency in managing disagreements, recommend modifying the organization's contract oversight activities, PMR and CMR to include interview questions to ask about award and post-award issues with the seller.

In addition to the above, our sixth, and final, recommendation is that ACC-ORL and MICC FDO-FSH leadership to focus resources to aid those already DAWIA certified in obtaining the Certified Contract Management Associate (CCMA) certification for the junior workforce or the CPCM certification for the experienced workforce due to the DAWIA certification process evolving based on the NCMA CMS. This is especially true with respondents to the assessment as zero ACC-ORL respondents and two MICC FDO-FSH respondents have the CPCM certification. The CPCM certification is based on the CMBOK, which includes both buyer and seller competencies. Completion of this certification should increase proficiency in buyer competencies and knowledge of seller competencies, to include Manage Disagreements. In addition to supporting the workforce in obtaining the CPCM certification, the DOD could revise the recruitment and hiring practices to allow for credit to be given to those with industry experience. This may provide assistance to MICC FDO-FSH in hiring more experienced contracting workforce

personnel. Possession of the CPCM certification should also serve as an equivalent to the new DAU contracting certification.

G. SUMMARY

This chapter explained the Contracting Workforce Competency Assessment developed by Rendon using the NCMA CMS as a guide (Rendon & Schwartz, 2020). The assessment was deployed to the MICC FDO-FSH and ACC-ORL contracting workforces. Next, the demographics of each organization were discussed individually and then compared to each other. Following the demographics was an analysis of the competencies, which focused on buyer proficiency and seller knowledge for ACC-ORL and MICC FDO-FSH individually with a comparison of each other that followed. The ACC-ORL and MICC FDO-FSH results were then compared to the procurement management oversight activities for the organizations. Lastly, recommendations were provided based on insight gained from the analysis.

V. SUMMARY, CONCLUSIONS AND AREAS FOR FURTHER RESEARCH

A. INTRODUCTION

Chapter V summarizes the contracting workforce competency assessment conducted at Mission and Installation Contracting Command Field Directorate Office-Fort Sam Houston (MICC FDO-FSH) and Army Contracting Command-Orlando (ACC-ORL). This chapter provides a conclusion to the findings while answering the four primary research questions. Finally, recommendations for further areas of research are provided based on this competency assessment.

B. SUMMARY

Government Accountability Office (GAO) issued the 2021 High Risk List, "a list of programs and operations that are 'high risk' due to their vulnerabilities to fraud, waste, abuse, and mismanagement or that need a transformation" (Dodaro, 2021, para. 1). DOD's Contract Management has been on GAOs High Risk List since "1992 and have identified three major areas of challenges: Acquisition Workforce, Service Acquisitions, and Operational Contract Support" (Dodaro, 2021, p. 235). GAO recommended the utilization of assessments to identify workforce competency gaps but had yet to see implementation of this tool as of the 2021 High Risk Series report to Congress (Dodaro, 2021). Use of workforce competency assessments will not only assist in the DOD transition to the National Contract Management Association (NCMA) Contract Management Standard (CMS), but also provide much-needed feedback for determining whether the acquisition community has sufficient capabilities to meet future acquisition needs (Dodaro, 2019).

As the NCMA CMS is adopted as the new DOD competency standard (in response to National Defense Authorization Acts (NDAA) 2020), the Army needs to conduct competency assessments of its contracting workforce based on the new competencies. The contracting workforce at MICC FDO-FSH and ACC-ORL were chosen for the online assessment to allow both organizations to gain a better understanding of their workforce's capabilities and assess the overall proficiency and knowledge of the contracting workforce.

Participants rated their proficiency for buyer competencies and knowledge of the seller competencies. Questions relating to buyer proficiency and seller knowledge competencies assess their proficiency as a buyer performing contract management tasks and knowledge level of contract management tasks performed by the seller. Prior to this research, MICC FDO-FSH and ACC-ORL had not conducted a CMS-based assessment of their contracting workforce. The primary purpose of this research was to assess the contracting workforce competencies of MICC FDO-FSH and ACC-ORL contracting workforce using the NCMA CMS competency framework. Data on contracting workforce proficiencies and knowledge levels will inform decision-makers on where to focus the redesign of training and education and will serve as a benchmark for how the current workforce performs under the NCMA CMS.

C.   CONCLUSION

The basis of this research is four primary research questions. These research questions are designed to provide MICC FDO-FSH and ACC-ORL with a true understanding of its contracting workforce competencies. This understanding will assist MICC FDO-FSH and ACC-ORL leadership with decisions regarding workforce development and training. The following conclusions have been drawn from the results of the competency assessment based on the NCMA CMS framework.

1. Based on assessment results, what are the proficiency ratings for the buyers' competencies?

Eight out of ten buyer proficiency competency ratings for ACC-ORL were between Advanced and Expert with higher ratings for pre-award and award functions over post-award functions. The remaining two buyer proficiency competencies were between Intermediate and Advanced. When these competencies are organized into the contract life cycle phases, the pre-award phase had the highest average proficiency rating. The lowest rated competency was Manage Disagreements. These ratings indicate the ACC-ORL contracting workforce respondents can handle considerably difficult situations with little or no guidance.

Eight out of ten buyer proficiency competency ratings for MICC FDO-FSH were between Intermediate and Advanced with similar ratings across pre-award, award functions and post-award functions. The remaining two buyer proficiency competencies were between Advanced and Expert. When these competencies are organized into the contract life cycle phases, the pre-award phase had the highest average proficiency rating. The lowest rated competency was Manage Disagreements. These ratings indicate the MICC FDO-FSH contracting workforce respondents can handle difficult situations with little or no guidance.

2. Based on assessment results, what are the knowledge ratings for the sellers' competencies?

All of the seller knowledge competency ratings for ACC-ORL were between Basic and Intermediate. When these competencies are organized into the contract life cycle phases, the award phase had the highest average knowledge rating. The lowest rated competency was Manage Subcontracts with Manage Disagreements closely behind. These ratings suggest a basic-level knowledge of seller competencies.

Nine out of ten seller knowledge competency ratings for MICC FDO-FSH were between Basic and Intermediate. The remaining competency was between Aware and Basic. When these competencies are organized into the contract life cycle phases, the pre-award phase had the highest average knowledge rating. The lowest rated competency was Manage Subcontracts with Manage Disagreements closely behind. These ratings suggest a basic-level knowledge of seller competencies.

3. Based on assessment results, what recommendations can be made for maintaining and improving the ACC-ORL and MICC FDO-FSH contracting workforce competency levels?

The recommendations are divided into the categories of Maintaining Contract Management Competencies and Improving Contract Management Competencies. We identified six recommendations as discussed below.

The high buyer proficiency ratings indicate that the ACC-ORL and MICC FDO-FSH leadership are focused on employing a capable and competent workforce. Therefore, our first recommendation is for maintaining contract management competencies is for the

organizations to focus on the education and training with an emphasis on NCMA CMS standard. This education and training should emphasize the CMS Guiding Principles to establish the competencies that are applicable throughout all phases of the contract management life cycle for both buyers and sellers and focusing on competencies in the pre-award, award, and post-award job tasks identified in the CMS. This education and training should focus on proficiency in performing buyer tasks and knowledge of the seller tasks.

Based on the lower MICC FDO-FSH buyer proficiency ratings, our second recommendation is that MICC FDO-FSH could provide additional education and training courses to the existing workforce to gain a better understanding of the buyer activities.

Our third recommendation is that MICC FDO-FSH attempt to hire more experienced contracting workforce personnel and provide additional education and training courses to the existing workforce to gain a better understanding of the buyer activities.

Based on the low seller knowledge ratings for both organizations, our fourth recommendation is that ACC-ORL and MICC FDO-FSH implement initiatives and provide training, based on the Contract Management Body of Knowledge (CMBOK) that will allow contracting workforce members to gain a better understanding of seller activities.

Both organizations self-assessed low buyer proficiency and seller knowledge ratings for Manage Disagreements. Our fifth recommendation is that the organizations offer focused education and training on critical thinking, problem solving, decision making, and conflict resolution to help improve the resolution of issues before they become contentious or get protested. To better gauge the level of competency in managing disagreements, recommend modifying the organization's contract oversight activities, PMR and CMR to include interview questions to ask about award and post-award issues with the seller.

Our sixth, and final, recommendation is that ACC-ORL and MICC FDO-FSH leadership focus resources to aid those already DAWIA certified in obtaining the CPCM certification and revise the recruitment and hiring practices to allow for credit given to those with industry experience.

4. Based on assessment results, how does the analysis relate to other performance metrics used by the organizations?

The ACC-ORL assessment findings were compared to the performance metrics results used by the organization. ACC-ORL has several procurement management oversight activities to include Contract Review Boards (CRB), Program Management Reviews (PMR), Self-Assessment Reviews (SAR), Contract Management Review (CMR), as well as monthly staff reports. The PMR and CMR were used in this comparison. For the purpose of this comparison, the pre-award and award processes are combined in the PMR and CMR pre-award contract execution rating.

The findings from the ACC-ORL assessment show buyer proficiency ratings between Intermediate and Advanced for the pre-award functions and award functions, which align with the 2019 PMR results which show Low risk for pre-award contract execution and the FY21 1st Quarter CMR results which also shows a Low risk for pre-award. Manage Disagreements was the low point for ACC-ORL's assessment results with a proficiency rating between Intermediate and Advanced. There is no comparison to this competency within the PMR or CMR. The ACC-ORL 2019 PMR results show Low risk for post-award contract execution but Medium risk for Quality Assurance. The ACC-ORL FY21 1st Quarter CMR results also show a Low risk for post-award. This CMR results actually have a higher measure of compliance than the pre-award. This could be attributed to the recent implementation of post-award stand-down days, which focus on post-award functions like Contracting Officer Representative appointment which assist in administration of the contract and quality assurance and contract closeouts.

MICC FDO-FSH assessment findings were compared to the performance metrics results used by the organization. As with ACC-ORL, MICC FDO-FSH has several procurement management oversight activities to include CRBs, PMRs, SARs, CMRs, as well as monthly staff reports. The PMR and CMR were used in this comparison. For the purpose of this comparison, the pre-award and award processes are combined in the PMR and CMR pre-award contract execution rating.

The findings for the MICC FDO-FSH assessment show buyer proficiency ratings between Intermediate to Advanced for all pre-award functions and post-award functions.

This aligns with the 2018 MICC FDO-FSH PMR results which shows the directorate office rated as being Low risk for pre-award contract execution. The overall lowest proficiency rating, which falls within the award process, is Manage Disagreements. In the 2018 MICC FDO-FSH PMR, a best practice to combat this competency is noted. It states, the MICC-FSH Deputy Director and Procuring Contracting Officers hold quarterly off-site meetings with all GS-12's and 13's to discuss contracting challenges that they would otherwise not know about in an effort to brainstorm solutions and to smooth out the contracting process. Practices like this may lead to higher competency ratings in future self-assessments. For post-award functions, MICC FDO-FSH assessment results were between Intermediate to Advanced. The 2018 MICC FDO-FSH PMR results which shows the directorate office rated as being Medium risk for post-award contract execution. The highest ratings were related to Managing Changes. This rating may be attributed to the large number of modifications and change orders MICC FDO-FSH executes each year.

D. AREAS FOR FURTHER RESEARCH

Based on the competency assessment findings and recommendations for maintaining and improving contracting management competencies, we identify the following areas for further research.

Our first area for further research is to gain a better understanding of the level of industry contract management experience within the workforce. The assessment could be modified to add a demographic question to ask respondents about years of industry contracting experience.

Our second area for further research is to further investigate the lowest proficiency ratings in Manage Disagreements. The findings necessitate further investigation on the low competency levels in this area for buyer proficiency and seller knowledge for ACC-ORL and MICC FDO-FSH. The investigation should consider if additional skillsets (critical thinking, problem solving, decision making, and conflict resolution) are needed for the workforce.

This initial competency assessment has established a baseline average of the current competency levels across each of the three phases of the contract management life cycle,

provide an evaluation of the current competencies, and assess areas of strengths and weaknesses for the ACC-ORL and MICC FDO-FSH workforces. Our third area of further research would be to conduct a competency assessment on an annual or periodically to determine if there are any trends or patterns in the improvements in the competencies of the workforces.

Our fourth area for further research would be to expand the competency assessment to include other Army Contracting Command or Mission Installation Contracting Command organizations. This would aid in establishing a baseline understanding of the greater organizational competencies, then periodically to look for trends.

Finally, our fifth area for further research would be to expand the competency assessment across all of DOD. Comparisons could then be made between the Army, Navy, Air Force, or other DOD agencies to gain a baseline understanding and establish trends for the entire DOD contracting workforce.

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