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CONTRACTUAL AGREEMENTS: ANALYZING THE ASSIGNMENT OF AGREEMENT OFFICERS FOR OTHER TRANSACTION AUTHORITY AGREEMENTS IN THE AIR FORCE

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MBA PROFESSIONAL PROJECT

CONTRACTUAL AGREEMENTS: ANALYZING THE ASSIGNMENT OF AGREEMENT OFFICERS FOR OTHER TRANSACTION AUTHORITY AGREEMENTS IN THE AIR FORCE

December 2022

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13. ABSTRACT (maximum 200 words)

The USAF has been charged with accelerating the pace of acquisitions and have found Other Transaction Authority (OTA) agreements as one procurement instrument that can be used. However, there may be a problem that the individuals assigned to be agreement officers (AO) that are managing non-Federal Acquisition Regulation (FAR) contracts such as OTAs may not be from the proper career field, or have the necessary education background, or years of experience, or even status as a procuring contracting officer (PCO). The purpose of this research is to conduct an analysis of the demographics of a sample population of Air Force AOs. I will specifically analyze career field, level of education, years of experience, and PCO status, of that sample AO population. This research will analyze data from one MAJCOM within the USAF. The data fields analyzed include career fields, educational background levels, years of experience, and PCO status. The dataset found that the MAJCOM is only assigning contracting civilians as AOs; this means that a FAR-trained workforce is managing non-FAR-based contracts with minimal training. Additionally, it takes many AOs 10 years of work experience before they attain a college business education, limiting business acumen. The USAF should consider non-contracting civilians, and military in contracting, as AOs. Furthermore, USAF should provide training on generally accepted contract management principles and concepts, as well as business management training.

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CONTRACTUAL AGREEMENTS: ANALYZING THE ASSIGNMENT OF AGREEMENT OFFICERS FOR OTHER TRANSACTION AUTHORITY AGREEMENTS IN THE AIR FORCE

James S. Barrett, Captain, United States Air Force

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

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December 2022

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iii

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CONTRACTUAL AGREEMENTS: ANALYZING THE ASSIGNMENT OF AGREEMENT OFFICERS FOR OTHER TRANSACTION AUTHORITY AGREEMENTS IN THE AIR FORCE

ABSTRACT

The USAF has been charged with accelerating the pace of acquisitions and have found Other Transaction Authority (OTA) agreements as one procurement instrument that can be used. However, there may be a problem that the individuals assigned to be agreement officers (AO) that are managing non-Federal Acquisition Regulation (FAR) contracts such as OTAs may not be from the proper career field, or have the necessary education background, or years of experience, or even status as a procuring contracting officer (PCO). The purpose of this research is to conduct an analysis of the demographics of a sample population of Air Force AOs. I will specifically analyze career field, level of education, years of experience, and PCO status, of that sample AO population. This research will analyze data from one MAJCOM within the USAF. The data fields analyzed include career fields, educational background levels, years of experience, and PCO status. The dataset found that the MAJCOM is only assigning contracting civilians as AOs; this means that a FAR-trained workforce is managing non-FAR-based contracts with minimal training. Additionally, it takes many AOs 10 years of work experience before they attain a college business education, limiting business acumen. The USAF should consider non-contracting civilians, and military in contracting, as AOs. Furthermore, USAF should provide training on generally accepted contract management principles and concepts, as well as business management training.

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TABLE OF CONTENTS

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LIST OF FIGURES

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LIST OF TABLES

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LIST OF ACRONYMS AND ABBREVIATIONS

64P	Military contracting career field indicator (officer)
6C0	Military contracting career field indicator (enlisted)
ACC	Air Combat Command
AETC	Air Education and Training Command
AFMC	Air Force Materiel Command
AFSC	Air Force Systems Command
AMC	Air Materiel Command
ANS	American National Standards
ANSI	American National Standards Institute
AO	Agreement Officer
APS	Alignment, Prioritization & Simplification
ARDC	Air Research and Development Command
CMBOK	Contract Management Body of Knowledge
CMS	Contract Management Standard
CO	Contracting Officer
CPARS	Contractor Performance Assessment Reporting System
CSAF	Chief of Staff of the Air Force
DARPA	Defense Advanced Research Projects Agency
DAU	Defense Acquisition University
DAWIA	Defense Acquisition Workforce Improvement Act
DFARS	Defense Federal Acquisition Regulation Supplement
DIU	Defense Innovation Unit
DOD	Department of Defense
DODGARS	Department of Defense Grant and Agreement Regulations
FAR	Federal Acquisition Regulation
GAO	Government Accountability Office
IG	Inspector General
MAJCOM	Major Command
NCMA	National Contract Management Association
NDC	Non-traditional Defense Contractor
OT/OTA	Other Transaction Authority
OWS	Operation Warp Speed
PCO	Procuring Contracting Officer

PCS	Permanent Change of Station
RFP	Request for Proposal
SAA	Space Act Agreements
R&D	Research and Development
USAF	United States Air Force
USSF	United States Space Force

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I first want to thank my Lord and Savior, Jesus Christ, without whom I would never have the wisdom, energy, or even the opportunity, to tackle this endeavor. To my wife and kids, my parents, and my mother-in-law, I want to say thank you for dealing with the late nights, and for providing me with unending encouragement throughout this process. To Professor Rendon and Professor Poree, thank you for allowing me to tackle what I would consider a passion project while I have been here at the Naval Postgraduate School, and helping me to dive into something of which I had very little knowledge. To the points of contact that I worked with in the USAF, thank you for believing, just as I do, that this topic is worth your support. To you, the reader, thank you for taking the time to review this, and I hope you learn something new, just as I did in this process.

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I. INTRODUCTION

A. BACKGROUND

The Department of the Air Force has been training its contracting workforce using the Federal Acquisition Regulation (FAR), which has been around since "April 1, 1984" (Padgett & Apple, 2021, para 1). However, in a modern age of contracting that includes newer acquisition methods far beyond the scope of the traditional model, there are questions on whether this workforce has adopted a skillset that the department can properly utilize to its fullest. The rigid adoption to traditional acquisition training may have kept these professionals away from some truly innovative concepts.

Acting in his role as the Chief of Staff of the Air Force (CSAF), General Charles Q. Brown charged the United States Air Force (USAF) with accelerating the fielding of "capability in warfighters' hands faster – through innovation, experimentation, and rapid prototyping" (Air Force Chief of Staff, 2020, p. 5). In moving forward with procuring these new and innovative capabilities, the contracting career field within both the USAF and the United States Space Force (USSF) has encountered limitations with rapidly accelerating the long-standing traditional procurement method; these methods are "subject to the complex laws and regulations" (Feldstern, 2021, p. 3), and there are only so many areas that can be streamlined to match the pace that is required by CSAF's directive. While the USAF continues to search for agilities and efficiencies in many of these tried-and-true methods, they also have sought out other ways to meet the CSAF's intent, though many of these approaches have not been a focus for both USAF and Department of Defense (DOD) contracting training programs for decades.

With a big push for out-of-the-box thinking, the USAF has begun to put more emphasis on non-Federal Acquisition Regulation (FAR), contracts; one of the most prevalent examples is an agreement that uses other transaction authority (OTA). While newly adopted by the USAF, these procurement instruments are not new to DOD. OTA agreements had shown success as far back as the Space Race and the Cold War within other agencies in the DOD (Ollison, 2021, p. 2), and appealed to businesses that "grew

1

reluctant to enmesh themselves in the quagmire of the federal acquisition process" (Feldstern, 2021, p. 3). OTAs seem to have favorable business concepts with significant efficiencies that can provide innovative leaps and bounds the USAF so desperately seeks in a much shorter time span. For this, the DOD requires a new non-FAR-based training framework, which is different than the FAR-based training framework. From this, there arises questions on the criteria for assigning Agreement Officers (AOs) that is being used. These concerns relate to how the Government is training their people, potentially leading to insufficiently trained AOs. The AOs may not be educated or trained to perform AO functions and may not have commensurate experience for their roles.

Based on the above, there may be a problem that the individuals assigned to be AOs that are managing non-FAR contracts may not be from the proper career field, or have the necessary education background, or years of experience, or even status as a procuring contracting officer (PCO). This problem related to the training and competency with regards to managing non-FAR contracts, including those assigned as an AO, results in unqualified AOs managing non-FAR contracts. A DOD contracting officer (CO) has a FAR-based, well-regulated, structured training curriculum that is conducted by the Defense Acquisition University (DAU). As FAR-based contracting competency dominates the current acquisition system, and billions of dollars in the USAF and DOD are spent through these traditional instruments, DAU's primary focus has historically been on FAR-based contracts. There are others that have postulated that "potential DOD AOs should complete the Defense Acquisition Workforce Improvement Act (DAWIA) Level 3" (Faucher, 2019, p. 41) in Contracting, and their training is sufficient to manage an OTA. When a Procuring Contracting Officer (PCO) reaches DAWIA Level 3, they are "considered experts capable of managing more complex acquisitions" (Faucher, 2019, p. 41) but one must remember that these same individuals have primarily grown-up learning how to operate solely within the realm of a FAR-based procurement, while an OTA exists completely outside of the FAR; the assumption made is that a DAWIA Contracting Level 3 PCO can adeptly operate in both a FAR-based and a non-FAR based world with years of training that heavily relies on the framework found in the FAR-based policy. However, prior to September 30, 2019, the only course that DAU hosted on OTAs was

2

CLC 035 "Other Transaction Authority for Prototype Projects," a course which took approximately "4 hours to complete" (Defense Acquisition University, n.d.-a). This course has since been retired and replaced with another online course, CLC 066 "Other Transactions (OTs)," which has been reduced in time to take approximately "2 hours to complete" (Defense Acquisition University, n.d.-b). Does this meet the intent of what the former Under Secretary of Defense for Acquisition and Sustainment said, when she mentioned that it was "essential that organizations with OT authority ensure Agreements Officers (AOs) are appropriately designated by the cognizant Head of the Contracting Activity and receive training needed to be successful"? (Lord, 2018, p. 2).

B.   PURPOSE OF RESEARCH

The purpose of this research is to conduct an analysis of a sample population of Air Force Agreements Officers. I will specifically analyze the career field, level of education, years of experience, and PCO status, of that sample AO population. After analyzing that data, I will recommend to the U.S. Air Force improvements to AO selection criteria.

C.   RESEARCH QUESTIONS

This research will seek to answer the following questions about a sample population of USAF agreement officers:

1.   From what career fields are the AOs are selected?

2.   What are the educational backgrounds that the AOs have completed?

3.   What are the years of experience in those career fields?

4.   What are their PCO statuses?

5.   What are the implications of the findings of this research in terms of selection criteria or AO competency?

Based on these five questions above, the competencies of the sample AOs may not be what the USAF requires for Agreements Officers. Problems could exist within the competencies of the AOs, especially if those competencies are only based on the FAR.

These individuals may not be getting enough training on business acumen that is outside the traditional FAR acumen. The USAF contracting workforce may not be adequately trained, experienced, or competent to effectively manage OTA contracts.

While the USAF has been increasing its use of OTAs, it is currently unknown what competency skillset is required to best execute an OTA. The implications of the findings of this research could help USAF contracting senior leaders understand if the competencies that the contracting workforce has are what is needed for an OTA AO. Additionally, it will allow sister services within the Army, Navy, and the DOD at-large, which also has oversight on DAU, to consider whether their people have the proper background and qualifications to accomplish their role as an AO. There is also the potential cost savings that come along with professionally training people and efficiently utilizing an effective training curriculum.

D. METHODOLOGY

This research will analyze data from one MAJCOM within the USAF, to be used to analyze AO competencies. The data fields that will be analyzed include career fields, educational background levels, years of experience, and PCO status. Descriptive statistics will be used to analyze these data fields and then to answer the previously discussed research questions.

E. BENEFITS AND LIMITATIONS OF THE RESEARCH

The benefit of this research is that it is an exploratory analysis in a population sample of AOs. It is beneficial for the USAF to know the career fields, educational backgrounds, and years of experience of their AOs, and that the USAF can leverage these findings. It is valuable to know the career field, as it is important to know whether that career field is the best career field for the selection of AOs. In a role with so much coordinating with the business industry, it is important to understand the educational background, and how different educational foundations can affect job performance. It is necessary to understand the years of experience, not only in their training base, but also in an AOs ability to think through the complex problems that OTAs bring. Finally,

4

knowing an AO's PCO status will further allow their training background to be analyzed. This analysis not only will benefit the participating bases, but will also benefit AFMC, USAF, and the DOD to see this sample size, and begin to consider the competencies of their AOs.

The limitations of this research are that the data is limited to the USAF, and only one MAJCOM within the USAF. The only data that is analyzed will be these data fields: career fields, educational background, years of experience, and PCO status. Finally, the timeframe of agreement officers is limited to those who are currently serving as an AO, or if available, have served within the past seven years.

F.   ORGANIZATION OF THE REPORT

This chapter serves as an introduction to the research. I first discussed the background for the research. I then identified the problem statement and the purpose of the research. In addition, I identify the research questions, and the methodology I will use to answer those research questions. Finally, I provided benefits and limitations of the research.

Chapter II discusses a review of the current literature. I will discuss the theories that inform the research. Additionally, I will address the adoption of the Contract Management Standard by the DOD as its competency framework. I will then elaborate on the current USAF 1102 and Air Force Officer 64P career field training, DAWIA certification, and the new Back-to-Basics change that has been implemented in DOD. In addition, I will then elaborate on the OTA and its origins, as well as how it compares and contrasts with a FAR-based contract. Finally, I will show the knowledge, skills and abilities of an AO, and how those compare and contrast with a FAR-trained Contracting Officer.

Chapter III discusses contracting and OTAs in the Air Force. I will provide an overview of the USAF contracting mission, as well as its history of the USAF contracting command. Following this, I will explain the USAF contracting leadership and vision. Finally, I will describe USAF contracting and its use of OTA authority

Chapter IV discusses the methodology of this research. I will introduce the methods used, as well as the source of the data. I will then describe how I will analyze that data.

Chapter V provides the findings, analysis, implications, and recommendations. After an introduction, I will show the findings of the analysis of the data. I will then discuss what these findings could mean, as well as the implications of these findings. Finally, I will provide some recommendations for the MAJCOM on selection criteria for AOs.

. Chapter VI describes my summary and conclusions. I will also lay out areas that could be further researched in the future regarding OTA and AO competencies.

G.   SUMMARY

In summary, this chapter provided a background of the research. I discussed the problem statement, the purpose for the research, and the research questions. After this, I identified the data fields that I will use in this research. Next, I identified the benefits and limitations of this research. Afterward, I explained the outline of the report. The next chapter will present a literature review that will be used to serve as the foundation for this research.

6

II. LITERATURE REVIEW

A. INTRODUCTION

The purpose of this chapter is to provide a literature review as the foundation for the research. I will first cover auditability and competency modeling theories. Next, I will cover the Contract Management Standard (National Contract Management Association, 2019b) as well as how that relates to the Contract Management Body of Knowledge (CMBOK). Additionally, I will address the recent change in training and Defense Acquisition Workforce Improvement Act initiatives within the Department of Defense (DOD). I will then introduce the Other Transaction Authority (OTA) agreement, and how it both compares and contrasts with a FAR-based contract. Finally, I will discuss the Agreement Officer (AO) position, and how that role both compares and contrasts with a FAR-trained Contracting Officer.

B. AUDITABILITY THEORY AND COMPETENCY MODELING THEORY

There are two theories that explain how people performing any role for an organization must have the right competencies and skillset. One theory is the auditability theory (Rendon & Rendon, 2016), and the other theory is the competency modeling theory (Campion et al., 2019). As it relates to contracting, for an organization to be successful, auditability theory puts forth the "need for competent personnel, capable processes and effective internal controls to ensure integrity, accountability and transparency in procurement operations" (Rendon & Rendon, 2016, p. 750). As reflected in Figure 1, this theory is not only the basis for why there are so many safeguards in Government contracting, but it also stands as a basis for how the DOD trains and assigns their people: to get competent personnel.

Competent people in an organization need to be educated, properly trained, and have commensurate experience in the different phases in contracting. Surely, the DOD is ensuring that they have capable people with DAWIA, which includes the new Back-to-Basics, which will be examined in an upcoming section. But it is unknown whether this diverges from what is needed to properly train an AO. Capable processes need to be

institutionalized within the organization, measured, and improved, such as with "pre-award, award, and post-award" (National Contract Management Association, 2019b, p. 2) phases. Effective internal controls ensure that the competent people follow the capable processes that have been set in place, and that those controls are enforced, monitored, and reported, using, for example, self-inspection checklists and the Inspector General (IG) audits.
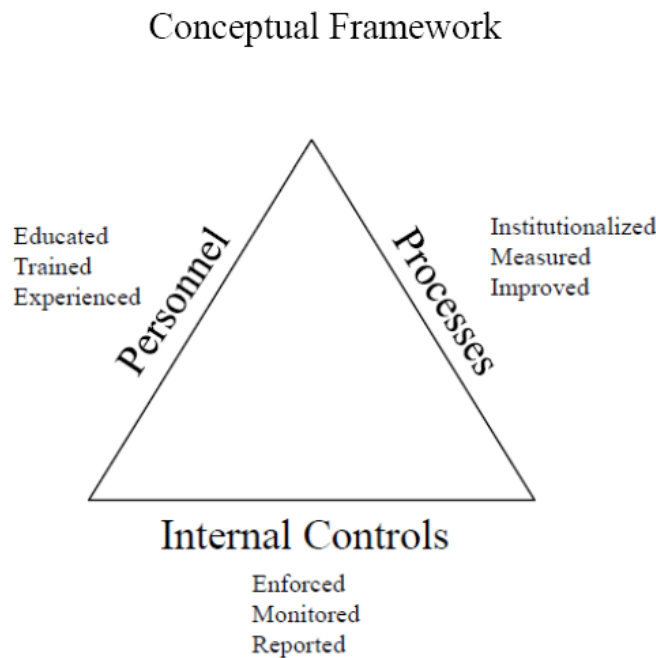
Figure 1.   Auditability Triangle. Source: Rendon and Rendon (2015)

Additionally, the competency modeling theory states that organizations need "collections of behaviors that are needed for effective performance on the job," in a form where "individual competencies are rooted in clusters of knowledge, skills, abilities, and other characteristics" (Campion et al., 2020, p. 291). As shown in Figure 2, the competency modeling theory refers to the following five areas: Relationships, Analytical, Management, Leadership, and Self-Management (Assessment Associates International, 2019). For Relationships, organizations must ensure that their people are able to carry on professional relationships that build their teams with a customer focus. For Analytical,

8

organizations must ensure that they build critical thinkers who strive for innovation and professional expertise. For Management, organizations must understand proper delegation, while still coaching their people and managing the execution of the work. For Leadership, organizations should help their people think strategically and ensure that proper business acumen is being gained. Finally, for Self-Management, organizations should grow within their people an internal drive for results, and the ability to take the initiative when it is needed.
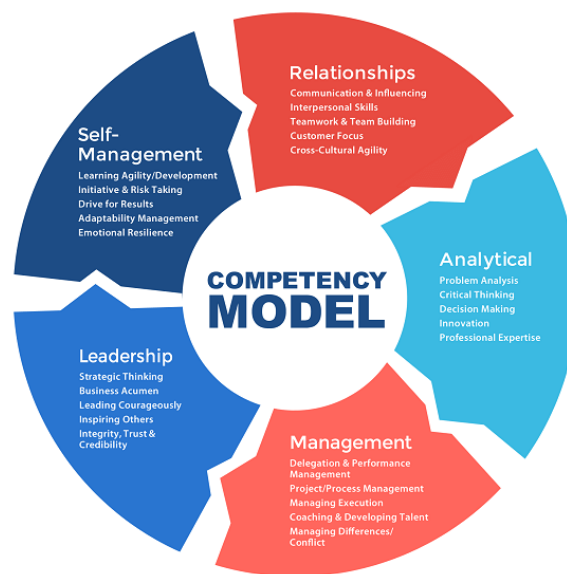
Figure 2.   AAI's Competency Model. Source: Assessment Associates International (2019)

Through the competency modeling theory, there is a link that may differentiate between proper training for Agreement Officers and proper training for FAR-trained contracting officers. If an OTA is simply another contractual tool for a contracting officer to utilize, then it may not matter as much; however, literature will show that while an OTA has similar constructs to a FAR-based contract, it is indeed a very different mechanism by which a different set of training standards may be needed. An application of auditability theory's competent people, and competency modeling theory, can be seen in the Contract Management Standard (CMS) (National Contract Management

9

Association, 2019b), which is the new competency framework for the DOD. I will discuss the Contract Management Standard in the next section.

C. THE CONTRACT MANAGEMENT STANDARD™ AND THE CMBOK

Auditability theory's competent people component, as well as the competency modeling theory, is applied with a competency framework that is used in the work environment. The recent adoption of the Contract Management Standard™ (CMS) by the DOD is that competency framework for its contracting workforce, and is the industry standard for generally accepted contract management principles and concepts, and is not based on the FAR. Moreover, on "April 22, 2019, the Board of Standards Review of the American National Standards Institute (ANSI) approved NCMA's Contract Management Standard™ publication as an American National Standard (ANS)" (National Contract Management Association, 2021, para. 6). This means that the CMS is a "third-party accredited program" (Tenaglia, 2021, para. 4), and a competency framework that has been accepted not only by the DOD, but also by industry. The previous FAR-based competency framework has since been removed and replaced with the CMS.

As shown in Figure 3, the CMS has generally accepted contract management concepts and principles, to include a discussion of the pre-award, award, and post-award phases from both the buyer and the seller perspective. This is vastly different from the previous DOD contracting competency framework, as it was only FAR-based, and only explained contracting from the Government buyer's perspective.

10
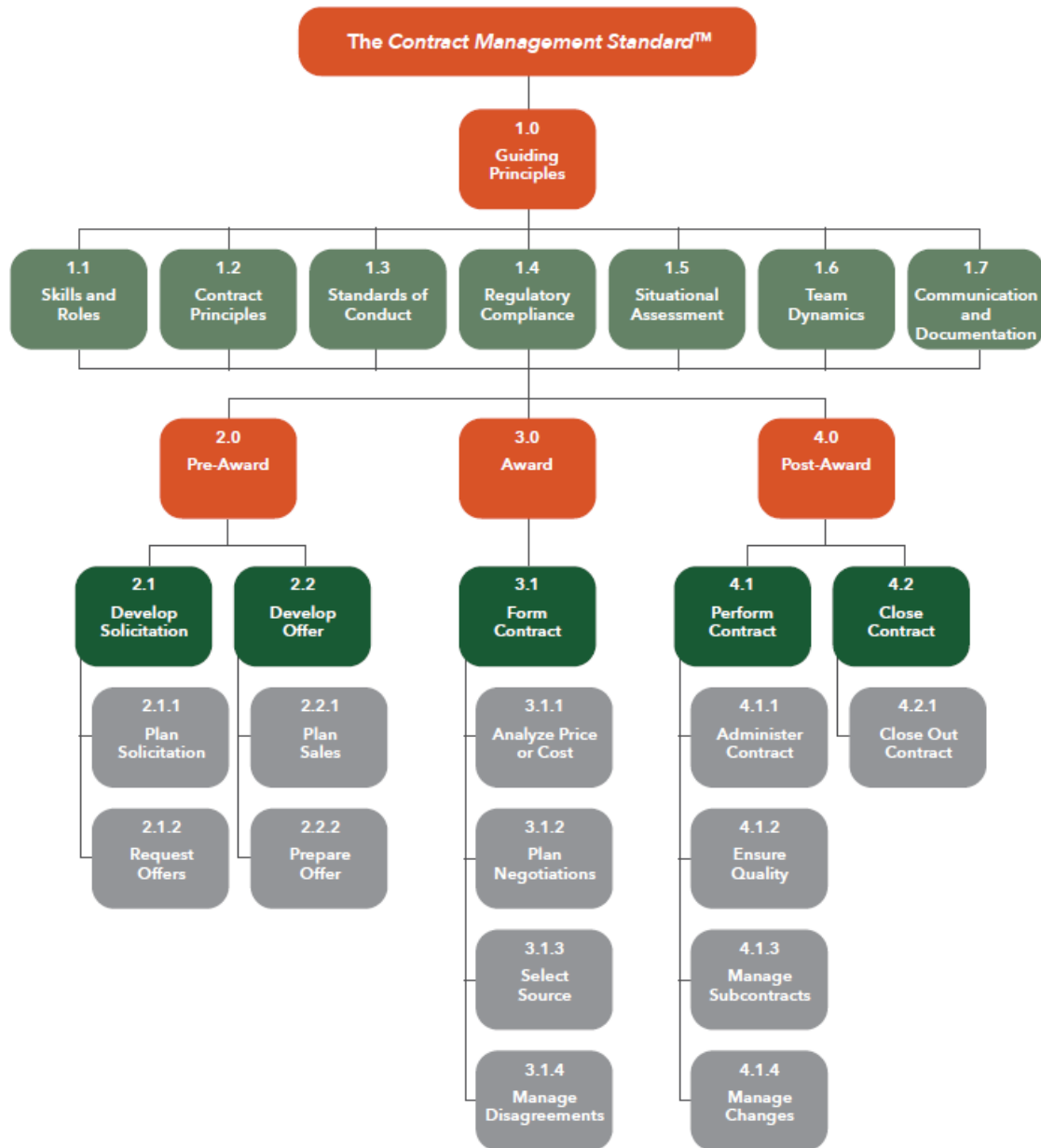
Figure 3.   The Contract Management Standard. Source: NCMA (2019)

Put into writing, the "Contract Management Standard™ Publication defines key contract management concepts and processes and serves as the foundation and framework for the Contract Management Body of Knowledge® (CMBOK)" (National Contract Management Association, 2019b, p. 2). Much as the CMBOK standardized contract management concepts and principles, the CMS "provides stability by integrating and standardizing the common job tasks and competencies that produce significant

11

contract management capabilities" (National Contract Management Association, 2019a, p. 21). The CMS is the heart of the CMBOK. In addition to the CMS, there are additional competencies in the CMBOK, to include Leadership, Management, and Learn (National Contract Management Association, 2019a, p. 18).

Listed in CMBOK is the "Learn Competency," as training "is essential to developing individual competence and organizational capability" (National Contract Management Association, 2019a, pp. 228–229). The Learn Competency is made up of two perspectives, individual and organizational, and it is through the individual perspective that one can understand how individual "competence is developed by applying knowledge, critical thinking, and innovation to business problems, to implement the best solutions" (National Contract Management Association, 2019a, pp. 229). Part of this development of knowledge and critical thinking is derived from training; with proper training, as "individuals become more competent in their job performance, the organization will likely expand its capability to perform" (National Contract Management Association, 2019a, pp. 229). Thus, by properly training AOs, an organization would not only be investing in the competence of the person, but also in how successful the organization will be in accomplishing its mission. An inefficient professional development program will hinder the organization's ability to accomplish its mission, and that is a major hindrance for the DOD. The adoption by the DOD of the CMS is unique and different from the previous DOD training requirements for its contracting workforce. Those training requirements will be discussed in the next section.

D.   TRAINING, DAWIA, AND DAU

1.   Pre–Back-to-Basics

While most of the training for the USAF contracting career field does indeed involve a heavy focus of on-the-job training mixed with a career field education and training plan, as well as a four-to-eight-week technical training school for both military and civilians, one of the mandatory elements of the USAF contracting training program is the Defense Acquisition Workforce Improvement Act (DAWIA) certification program. Enacted as "part of the Defense Authorization Act, DAWIA mandated that an

12

Acquisition Corps be established to regulate, certify, and record vital and critical acquisition education, training and experience of each of its members" (Ocasio & Bublitz, 2013, p. 5); as part of this acquisition corps was the Defense Acquisition University, who mission it is to deliver "continuous learning and support tailored to the needs of the Defense Acquisition Workforce" (Woolsey, n.d., para. 1), according to the needs of the organizations. As of 2019, acquisition professionals that were mandated to go through DAU for training program were to take approximately 600 hours (Table 1) over a four-year period to receive the maximum certification available for contracting personnel. This training generally "was a one-size-fits-all approach and delivered early in an individual's career" (Defense Acquisition University, n.d.-c, para. 2), after which the only training was on-the-job training, and other assorted optional trainings that the individual felt like taking to maintain their proficiency. It should be noted that DOD no longer offers the DAWIA certification as referred to, and they are rolling out a new standard that will be known as Back-to-Basics, which "streamlines the certification framework and re-focuses training resources for the Defense Acquisition Workforce" (Defense Acquisition University, n.d.-c, para. 1).

Table 1. 2019 DAU Training for DAWIA Certification in Contracting.
Adapted from Defense Acquisition University (2019)

DAWIA Level	Course Name	Course Description	Approximate Time to Complete/Type of Teaching
Level I	CON 090	FAR Fundamentals	20 days1/Instructor Led
	CON 100	Shaping Smart Business Arrangements	5 hours/online
	CON 121	Contract Planning	11 hours/online
	CON 124	Contract Execution	9 hours/online
	CON 127	Contract Management	8 hours/online
	CON 170	Fundamentals of Cost and Price Analysis	10 days/Instructor led
	CLC 057	Performance-Based Payment	5 hours/online
	CLC 058	Introduction to Contract Pricing	3 hours/online
		Minimum Time Required to Complete (By Certification/ Cumulative)	221 hours*/ 221 hours
Level II	CON 200	Business Decisions for Contracting	13 hours/online
	CON 216	Legal Considerations in Contracting	24 hours/online
	CON 270	Intermediate Cost and Price Analysis	10 days/Instructor led
	CON 280	Source Selection and Administration of Service Contracts	10 days/Instructor led
	CON 290	Contract Administration	10 days/Instructor led
	CLC 051	Industrial Property	1.5 hours/online

13

DAWIA Level	Course Name	Course Description	Approximate Time to Complete/Type of Teaching
	CLC 056	Analyzing Contract Costs	11 hours/online
	HBS 428	Negotiating	2 hours/online
		Minimum Time Required to Complete (By Certification/ Cumulative)	291.5 hours*/ 512.5 hours*
Level III	CON 360	Contracting for Decision Makers	7.5 days/Instructor led
	HBS ###	Another course from the Harvard Business School	2 hours/online
	1 elective from below		
	ACQ 265	Mission-Focused Services Acquisition	3.5 days/Instructor led
	ACQ 315	Understanding Industry	4.5 days/Instructor led
	ACQ 370	Acquisition Law	4.5 days/Instructor led
	CON 244	Construction Contracting	4.5 days/Instructor led
	CON 252	Fundamentals of Cost Accounting Standards	8 days/Instructor led
	CON 370	Advanced Contract Pricing	9.5 days/Instructor led
		Minimum Time Required to Complete (By Certification/ Cumulative)	90 hours*/ 602.5 hours*

*For the purposes of these calculations, 1 Training Day = 8 hours

2. Post–Back-to-Basics

DAU's Back-to-Basics is the "first major reform of the defense acquisition workforce management framework since the early 1990s" (Shafer et al., 2020, para 1). While the Back-to-Basics curriculum continues to be matured, it should be noted the stark differences between it and the previous DAWIA certification program. First and foremost, Back-to-Basics is based on the new DOD Contracting Competency Model (Contracting Certification Taskforce, 2020, p. 2). In turn, this new competency model is "based on the…Contract Management Standard and complies with section 861 of the Fiscal Year 2020 National Defense Authorization Act" (Tanaglia, 2021, para 4), which means that Back-to-Basics it is not based on the FAR. Back-to-Basics will help students achieve "a set of competencies that are foundational and common among the Contracting workforce" (Tenaglia, 2021, para. 4), whereas anyone who went through the pre Back-to-Basics DAWIA program would have learned FAR contracting policies.

The Back-to-Basics initiative is the most recent certification program that has been directed by the Under Secretary of Defense for Acquisition and Sustainment (Shafer et al., 2020, p. 1), which will help the contracting workforce understand contracting from

both the buyers' and sellers' perspective, whereas the previous DAWIA curricula only taught contracting from the FAR-based buyer's perspective. Finally, Back-to-Basics was instrumental in eliminating the requirement for 24 hours of college business credits that used to be mandatory for certification and employment (Lord, 2020, para. 1). This opens the potential candidate pool that could compete for a contracting vacancy, but also eliminates business knowledge that was across the career field, such as the common business practices of "Business Management," "Financial Management," "Project Management," "Risk Management," and "Supply Chain Management" (National Contract Management Association, 2019a, p. 19). One of the reasons for the Back-to-Basics changes, and the adoption of the non-FAR-based CMS, is because of the environment of the use of non-FAR-based contract instruments. An example of a non-FAR-based contract instrument is an Other Transaction Authority (OTA) agreement, which will be discussed next.

E.   OTHER TRANSACTION AUTHORITY AGREEMENTS

The concept of the OTA was born out of necessity, and "was first included in the Space Act of 1958 to afford NASA the ability to construct what would later be known as Space Act Agreements (SAAs)" (Lynn, 2018, p. 23). In a time when the world needed to move fast, especially due to the Space Race, NASA led the procurement charge by creating a contracting instrument so different than anything that had formally come before it. NASA was able to contract with sectors of industry that traditionally stayed away from FAR-based contracts with the use of OTAs. An OTA is "a special award vehicle used by federal agencies for obtaining or advancing research and development (R&D) or prototypes" (Lewis, 2019, p. 7). Even more unique, at the Defense Innovation Unit (DIU), an OTA allows businesses to work "alongside…agreements officers on actual problem sets that DIU is working on" (Temin, 2022, para. 9). An OTA allows for a collaborative environment whereby both the Government and the business involved with the OTA can enter improved partnerships to solve complex problems. This unique environment is needed as the world turns back to a need of speed not seen since the Space Race. While an OTA seems to differ a lot from a FAR-based contract, there are some similarities.

1.   OTAs Compared with a FAR-Based Contract

In order to separate the idea of a FAR-based contract from an OTA, many individuals do not even consider an OTA to be a contract; however, while "OT agreements are not procurement contracts, but they are legally valid contracts" (Office of the Under Secretary of Defense for Acquisition and Sustainment, 2018, p. 38). They contain all the elements that constitute a contract, and thus it would still be proper to consider them a contract; the traditional terminology is to call them an OTA agreement, but they are still Government contracts. As they are still Government contracts, there are common ideas that an AO should consider, which "includes traditional contract topics such as price reasonableness, allowable costs, audit, termination and dispute processes, intellectual property rights, etc." (Gilliland, 2001, p. 47). While an OTA is not ruled by the FAR, traditional contract concepts and principles still apply, and an AO is still held to the same moral and ethical standard as a FAR-based contracting officer. With this considered, though, there are plenty of ways in which an OTA is a very unique instrument.

2.   OTAs Contrasted with a FAR-Based Contract

One of the biggest proponents of the OTA, DARPA, put it best when they said that an OTA is "not your typical government contract" (Defense Advanced Research Projects Agency, 2019, para. 1). They agree that an OTA is still a contract, but it differs in so many ways as an OTA "is not subject to the FAR, DFARS, or DOD Grants and Agreement Regulations (DoDGARs)" (Lewis, 2019, p. 7). Those unaware may assume that an OTA is simply another grant or cooperative agreement that is covered by the DoDGARS; in fact, an OTA is still separate from the DoDGARS authority. An OTA does not abide by any FAR-based Government procurement procedures.

Most will agree that OTAs are primarily used because they "have maximum flexibility instead of being tethered to the strict requirements of most government contracting" (Defense Advanced Research Projects Agency, 2019, para. 3). In the research and development (R&D) world, this flexibility is important, as it allows the Government not only to partner with industry, but also to pivot as either of the parties see

16

fit; R&D projects can be ever-evolving, and an OTA allows that project to continue to grow. With that, it is important to note that OTAs provide "flexibility to develop customized agreements with entities and accomplish projects that they could not have achieved using traditional contracting mechanisms" (Government Accountability Office, 2016, p. 12).

Aside from the ability to pivot when needed, an OTA also allows the Government the freedom to contract with entities that are so averse to the restrictive world that FAR-based contracting brings, that they want nothing to do with any Government contract; these entities are generally referred to as a "non-traditional defense contractor (NDC)" (Office of the Under Secretary of Defense for Acquisition and Sustainment, 2018, p. 13). As an OTA is "generally exempt from federal procurement laws and regulations such as the Competition in Contracting Act and the Federal Acquisition Regulation" (Peters, 2019, p. 2), a NDC is much more willing to contract with the DOD, as there are less bureaucratic rules. Specifically, many businesses are hesitant when it comes to their data and intellectual property rights; many businesses can be concerned with how the Government would use it in the future for various reasons. With an OTA, "Agreement Officers are free to negotiate IP terms and conditions different from those found in FAR type contracts" (Gilliland, 2001, p. 40). There are many facets to consider when deciding data rights, including how long the Government has the rights, or what the Government is allowed to do with those rights. It is a positive business strategy when an AO and their industry counterpart agree on a collaborative strategy that can be beneficial for both parties, and an OTA provides that business strategy.

On the topic of working together, OTAs allow the Government to enter into consortia "comprised of traditional and non-traditional partners" (Gagnon & Van Remmen, 2018, p. 38) to solve their problems. What this means is that there are multiple partners that contribute ideas equally to mitigate the Government's issues. In FAR-based contracts there is privity of contract, where the principal (Government) is only allowed to work directly with the agent (Prime contractor) and has minimal authority or interaction with the suppliers. With an OTA, suppliers may still exist at those lower-tier levels, but

17

any major players that the Government recognizes may be beneficial to speak with may be brought up into partnership on the OTA consortium and have equal authority.

But it is not just the OTA agreement itself that is streamlined; it is also the Request for Proposal (RFP) process. In FAR-based contracts, "industry becomes frustrated with the government for not providing enough detail and feedback." (Berry & Mulski, 2020, p. 43). With OTAs, the "process flattens communication between the stakeholders in the contracting process" (Berry & Mulski, 2020, p. 43), and allows an open dialogue. For any OTA requirement that involves speed and precision, this is a game-changer, as it clears up any fog of war that may be present and allows for a clear picture of what the Government is actually looking for from the contractors. In FAR-based contracts, communication with the offerors and communication with industry is restricted after receipt of proposal. However, an OTA provides more flexibility, and allows a dialogue between industry and the Government that may not be present in the FAR-based contract vehicle's procurement mechanism. To sum the differences up, it may be said that many "elements within the DOD thrive on standardization provided by the FAR; however, in the world of innovative contracting, becoming reliant on procedures, detailed guidance, templates tend to hurt more than they help" (Barringer & Miles, 2021, p. 11). Too often, the FAR-based contract environment is too rigid to match the speed by which the DOD and the USAF need to innovate. The volumes of regulatory guidance and strict templates that must be used overtakes the ability to innovate. Table 2 shows the differences between a FAR-based contracts and an OTA agreement.

Table 2.   The Differences between a FAR-Based Contract and an OTA
Agreement

FAR-Based Government Contract	Category	Other Transaction Authority Agreements
Structured Government contract	**Type of Acquisition**	Unstructured Government acquisition tool
Bound by the FAR and DFARS	**Authority**	Awarded under other transaction authority, outside FAR, DFARS, DODGARS
Generally least flexible	**Degree of Flexibility**	Maximum flexibility
Industry partners only under limited circumstances; rare partnering	**Ability to Partner**	Consortiums maximized with both traditional and non-traditional contractors; can partner with industry
Regulated agreements	**Degree of Customization**	Customized agreements
Encouraged to increase small business participation; most contract dollars go to MDC's	**Industry Base Targeted**	Encouraged to participate with NDC's
Regulated terms and conditions; strict intellectual property rules	**Terms and Conditions**	Can negotiate intellectual property and other terms and conditions
Structured RFP Process with structured industry engagement procedures	**Request for Proposal (RFP) Process**	Flat RFP Process

Adapted from Temin (2022); Berry & Mulski (2020); Defense Advanced Research Projects Agency (2019); Lewis (2019); Gagnon & Van Remmen (2018); Office of the Under Secretary of Defense for Acquisition and Sustainment (2018); Government Accountability Office (2016); Gilliland (2001).

In fact, it should be no surprise that, in combatting the recent COVID-19 pandemic, the DOD contracting officers did not use FAR-based contracts, but "Operation Warp Speed (OWS) successfully utilized Other Transaction Authority (OTA) to acquire COVID-19 vaccines" (Balkin, 2021, para. 1). DOD contracting officers needed to move fast to combat the pandemic that was raging across the country, and it was the OTA that was chosen within OWS to quickly develop, test, and field the millions of vaccines that were needed, and did so in an unprecedented amount of time. Based on the discussion on how OTAs are different from FAR-based contracts, we know that the knowledge, skills, and abilities of AOs should be different than a FAR-trained contracting officer. This will be discussed in the next section.

F.   KNOWLEDGE, SKILLS, AND ABILITIES OF AOs

For those familiar with the contracting world, the concept of an AO is not unique: they are the "government official entrusted with the authority to enter into and administer OTs" (Almonte, 2019, p. 19). An AO may "negotiate, enter into, and administer an OT Agreement (akin to the role of a contracting officer for traditional contracts)" (Peters, 2019, p. 3), and are formally assigned by their organizations, to "ensure that AOs are individuals who have demonstrated expertise in executing, managing, or administering complex acquisition instruments, and can function in a less structured environment where prudent judgment is essential" (Office of the Under Secretary of Defense for Acquisition and Sustainment, 2018, p. 9). From a career field standpoint, as it currently stands, very "few, if any, organizations in current practice have chosen to delegate AO authority to anyone not holding a contracting officer's warrant" (Dunn, 2021, para. 9), so a FAR-trained contracting officer may also serve in the role of AO.

There are many knowledge areas within the CMBOK that lay within a contracting officers' wheelhouse that show how it makes sense to assign a FAR-trained contracting officer as an AO, like Leadership, Management, and Learn (National Contract Management Association, 2019a, p. 18). Leadership and Management help to "fortify the technical competencies of contract management" (National Contract Management Association, 2019a, pp. 18–19). It is through the proper use of leadership and management principles that a contracting officer, regardless of what type of contract they work on, can develop into a well-rounded professional. For the Learn competency, the "most effective contract managers continually expand their depth and breadth of contract management knowledge and skills" (National Contract Management Association, 2019a, p. 18). A contracting officer should not be content with simply knowing one contracting methodology, but should continue to strive to know their craft, like a woodworker knows different pieces and types of the wood that they utilize. With these competencies as a core understanding of contract management, it will then be shown how different an AO must act from a FAR-trained contracting officer.

1. AOs Compared with a FAR-Trained Contracting Officer

Many organizations choose experienced contracting officers as AOs. In fact, the Air Force Materiel Command requires contracting officers "hold an unlimited Contracting Officer warrant" (Bullock, 2020, para 2b), to be AOs. The reasoning behind this may lie within the scope of FAR-trained contracting officers. Aside from the rigorous training already mentioned, and the years of experience, the FAR lays out precisely what the scope of a contracting officer should be:

> Contracting officers have authority to enter into, administer, or terminate contracts and make related determinations and findings. Contracting officers may bind the Government only to the extent of the authority delegated to them. Contracting officers shall receive from the appointing authority (see 1.603-1) clear instructions in writing regarding the limits of their authority. Information on the limits of the contracting officers' authority shall be readily available to the public and agency personnel. (FAR 1.603, 2022)

This is the range of authorities for a contracting officer, and the general concept is very much the same for AOs. AOs and PCOs "are responsible for negotiating agreements that appropriately reflect the risks undertaken by all parties to the agreement, incorporate good business sense and include appropriate safeguards to protect the Government's interest" (Jacobs, 2020, p. 3). From their experience and training, seasoned contracting officers have the foresight to understand when they are entering into a contract with a contractor who will not be able to perform for a variety of reasons; if a junior contracting officer does not, they certainly have plenty of systems that may indicate this, to include the Contractor Performance Assessment Reporting System (CPARS), surveys, and their program team. An AO is no different and must also ensure that the industry partner they are working with has the ability and capability to perform, while also ensuring that the DOD or USAF is receiving what they need to receive from the contract.

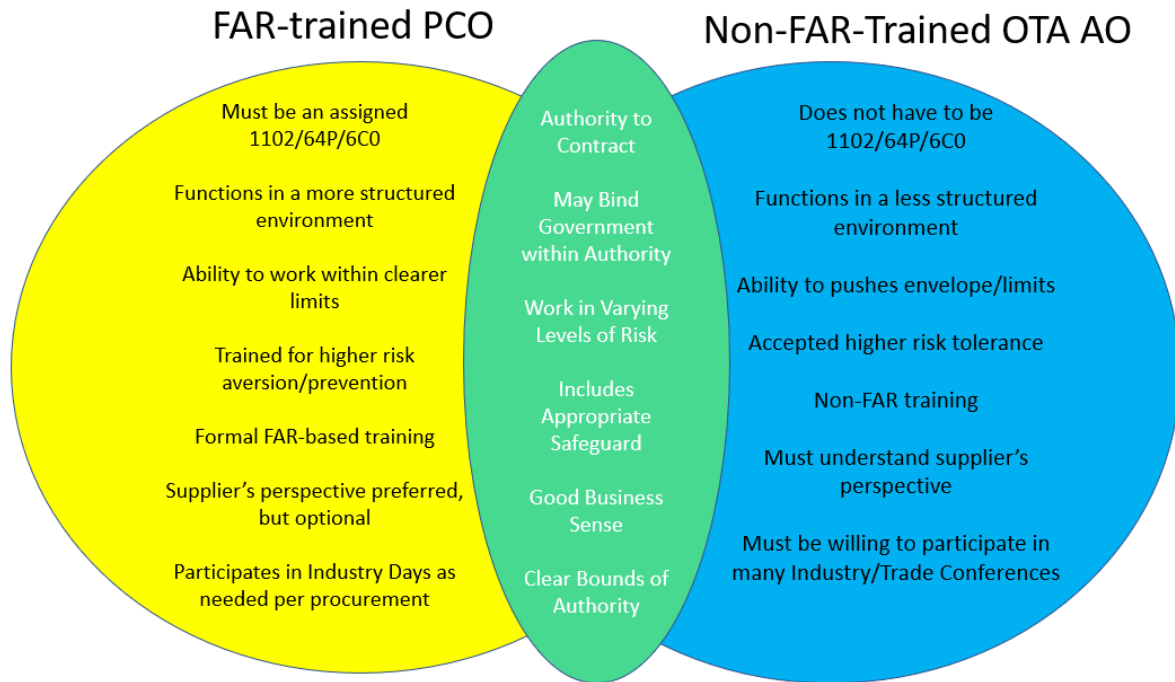In the world of FAR-based contracting and non-FAR-based contracting (for example, OTAs), one must remember that PCOs and AOs are still working with industry, and still must have business acumen about them; they must focus on the mission and be able to be a competent business leader. Both the PCO and the AO should still be voicing "sound judgment and risk management" (Hayes, 1998, p. 29). These are basic skills that

21

are imbued into contracting officers from the beginning; in fact, these are basic business principles, and should apply in every business-like scenario. It is for this reason that the OT Guide mentions how AOs are "expected to possess a level of responsibility, business acumen, and judgment that enables them to operate in the relatively unstructured environment of OTs" (the Office of the Under Secretary of Defense for Acquisition and Sustainment, 2018, p. 9). These traits are what the DOD and DAU instill in the contracting workforce from the beginning, even though an OTA operates in a slightly different governance environment for what can be good business acumen and judgement. Many believe that there is "the perception that there are not many safeguards associated with OTAs, yet sound business judgment from competent contracting officers has to be employed" (Liu & Wong, 2008, p. 74). An AO still needs to know the red flags if the Government is being defrauded and if the cost and pricing data provided indicates that something is wrong with the items or service. This comes from experience, but also comes from a proper business training program, so that they can understand the known signs for each of these items. In the contracting environment, an AO should not have unlimited control over all processes of their business, so organizations with OTA authority "shall provide appropriate oversight and have processes in place to ensure that AOs do not bind the Government in OT agreements that exceed their warrant authority" (Lord, 2018, p. 2). These are good contract management practices, so an AO should understand how the most basic principles of contracting work. Finally, as Congress removed "the requirement for contracting professionals to have completed at least 24 semester credit hours (or equivalent) of study from an accredited institution of higher education in the areas of…business" (Loan, 2020, para I), both the AO and the FAR-trained contracting officer are no longer required to complete the previously required business courses. This is important because both must now demonstrate good business acumen without having an educational degree to provide that business knowledge. While these are basic concepts of where AOs and PCOs are similar, there are many points for which they differ.

2. AOs Contrasted with a FAR-Trained Contracting Officer

An OTA is a quite different contractual vehicle compared to a FAR-based contract, so an AO must be able to administer an OTA in quite different ways that a FAR-trained contracting officer may with their FAR-regulated contract. One way that AOs differ from PCOs is that AOs "do not have to be contracting officers" (Peters, 2019, p. 3). To be a FAR-trained contracting officer, one must be assigned to the contracting career field; in the USAF, this is the 64P or 6C0 for military, and 1102 for civilians. However, in the OTA Guide, it does not make this mandatory, and only mentions that the individual selected as an AO must have business acumen, and they should "have demonstrated expertise in executing, managing, or administering complex acquisition instruments, and can function in a less structured environment where prudent judgment is essential" (Office of the Under Secretary of Defense for Acquisition and Sustainment, 2018, p. 9). In other words, the agreements officer should execute a contract at some point in their careers, but note that is not a mandatory requirement in the OT Guide. It may be preferred or even mandated by organizations to have a FAR-based contracting background, but organizations are given leeway in the OT Guide to select those individuals who have the highest qualifications and experience regardless of current career field. Currently, it seems that many organizations in the DOD and USAF only allows "its most experienced and highly trained contracting officers to enter into other transactions" (Stevens, 2016, p. 38). There may be other instances where this differs, but the literature reviewed shows that this appears to be the most common approach in the DOD, in order to be more risk averse as opposed to risk aware. On this same topic of risk management as an internal competency for a good agreements officer, many "Government contracting officers are reluctant to 'push the envelope' on OTAs due to fears about being criticized after the fact by auditors and Inspector Generals (IG)" (Liu & Wong, 2008, p. 67). This may be hurting the OTA community, if a FAR-trained contracting officer is assigned as an AO, and is constantly concerned about auditors and the IG scrutinizing their OTA; the risk of failure still runs heavy in the DOD, and FAR-trained contracting officers may be more apt to stick with practices that they are comfortable. Risk management is extremely important in an OTA, but it is also important

to understand in the assignment of an AO, and what type of acquisition professional is being assigned. OTAs whose AOs are also PCOs need to have "a change in behavior, a hard thing to do" (Hayes, 1998, p. 81). FAR-trained contracting officers are constrained in their authority with a multitude of regulations and requirements, whereas an AO is not constrained. But if a FAR-trained contracting officer is assigned as an AO, they may tend to bring that risk aversion of those policies along, as that was where the foundation of their training and qualifications were built. Finally, from a core competency standpoint, AOs "must have a better understanding of the benefits of OTs from the suppliers' perspective if they are going to be successful in crafting OTs that will attract more non-traditional companies in the future" (Gilliland, 2001, p. 70). Government agencies host industry days to attract more competition, in order to contract with them, albeit with differing levels of success. For an AO, they need to have that insight, and should constantly be developing their market, to attract more non-traditional vendors that the Government are missing with their contracts. To be a contracting officer, industry days are needed for their procurement-specific contracts. However, an AO must also have the energy and ability to attend industry/trade conferences. When an AO attends the industry/ trade conferences, the DOD shows a willingness to collaborate with those vendors who steer clear from working with the Government. Figure 4 shows an overview of the differences between the two specialties.

FAR-trained PCO

- Must be an assigned 1102/64P/6C0
- Functions in a more structured environment
- Ability to work within clearer limits
- Trained for higher risk aversion/prevention
- Formal FAR-based training
- Supplier's perspective preferred, but optional
- Participates in Industry Days as needed per procurement

(shared)
- Authority to Contract
- May Bind Government within Authority
- Work in Varying Levels of Risk
- Includes Appropriate Safeguard
- Good Business Sense
- Clear Bounds of Authority

Non-FAR-Trained OTA AO

- Does not have to be 1102/64P/6C0
- Functions in a less structured environment
- Ability to pushes envelope/limits
- Accepted higher risk tolerance
- Non-FAR training
- Must understand supplier's perspective
- Must be willing to participate in many Industry/Trade Conferences

Adapted from Federal Acquisition Regulation (2022); Jacobs (2020); Peters (2019); Office of the Under Secretary of Defense for Acquisition and Sustainment (2018); Liu & Wong (2008); Gilliland (2001).

Figure 4.   Comparing and Contrasting a FAR-Trained PCO with a Non-FAR-Trained OTA AO

G.   IG AND GAO FINDINGS ON OTAs

The OTA has made headlines recently, but not in the way desired by most contracting units. In one report, the DOD Inspector General (IG) found that the OTA AOs did not always "approve costs incurred prior to award or appropriately award resource share OTs because the agreement officers did not comply with the U.S.C. and compliance with the OT Guide is not a requirement" (U.S. Department of Defense Inspector General, 2022, p. i). The Agreements Officers did not have a requirement to comply with the OT Guide, but they also did not know enough about the U.S.C. or contracting in order to appropriately follow law and statute.

Additionally, the Government Accountability Office (GAO) found that "DOD contracting personnel have limited information to help inform planning when considering whether and how to use consortia-based OTAs" (Government Accountability Office,

2022, para 3). The AOs have been improperly awarding consortia-based OTAs, but they do not have any assistance or information on when and how to actually award these OTAs. In other words, these AOs were never trained on how to perform a contracting function outside of the FAR. To ensure that career fields have competent personnel, one must understand the role that they are assigning their people. There are implications if the wrong competencies are chosen. The next section will address some of these implications.

H. IMPLICATIONS FROM THE LITERATURE REVIEW

The aforementioned changes to the DOD's training curriculum are important, because it was previously mentioned that those with a Level III certification in contracting could hold AO authority for OTAs. Considering that an individual who used to attain a Level III certification in Contracting had to go through so much FAR-based training, the same individual may not have the proper competency to properly execute an OTA in the manner for which it was desired. Some individuals have recommended "updating training materials to better equip contracting officers with an understanding of OT authority and how to craft effective OT agreements" (Stevens, 2016, p. xxi), but this may not be enough.

The Congressional Research Service explained that much "of what is known about the rationale for, and use of, other transactions is based on DOD's experiences with OT authority" (Halchin, 2011, p. 6). However, the DOD contracting workforce is vast and disconnected, and there may still be instances where best practices from an organization like DARPA has not been filtered to the rest of the force. Also, the need for speed and agility has more agencies like the USAF looking to use OTAs, so the number of AOs has greatly expanded. As the data will be coming from the USAF, the next chapter will discuss USAF contracting and their use of OTAs.

I. SUMMARY

In summary, this chapter provided a literature review that set the foundation for the research. I first discussed auditability theory and competency modeling theory. Next,

I introduced the Contract Management Standard and the CMBOK. Following this, I explained the training, DAWIA, and DAU, which included pre-Back-to-Basics curriculum, as well as the Post Back-to-Basics details. Then, I explained Other Transaction Authority agreements, and how they both compared and contrasted with FAR-based contracts. I then discussed the knowledge, skills, and abilities of an Agreements Officer, and how it both compared and contrasted with a FAR-trained Contracting Officer. Next, I presented the IG and GAO findings on OTA's. Finally, I illustrated some implications from the literature review. As previously discussed, the purpose of this research is to conduct an analysis of a sample population of AOs to identify career field, level of education, and years of experience of that workforce. The research data is coming from the United States Air Force, specifically Air Force Materiel Command. The next chapter will discuss how the Air Force and the Air Force Materiel Command is organized and structured for contracting.

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III. CONTRACTING AND OTAS IN THE AIR FORCE

A. INTRODUCTION

This chapter will serve as explaining how contracting and OTAs are organized in the United States Air Force. First, I will discuss the USAF Contracting Mission. Next, I will explain the USAF contracting command history. Following this, I will describe the USAF contracting leadership and vision. Finally, I will identify the USAF contracting and OTA authority.
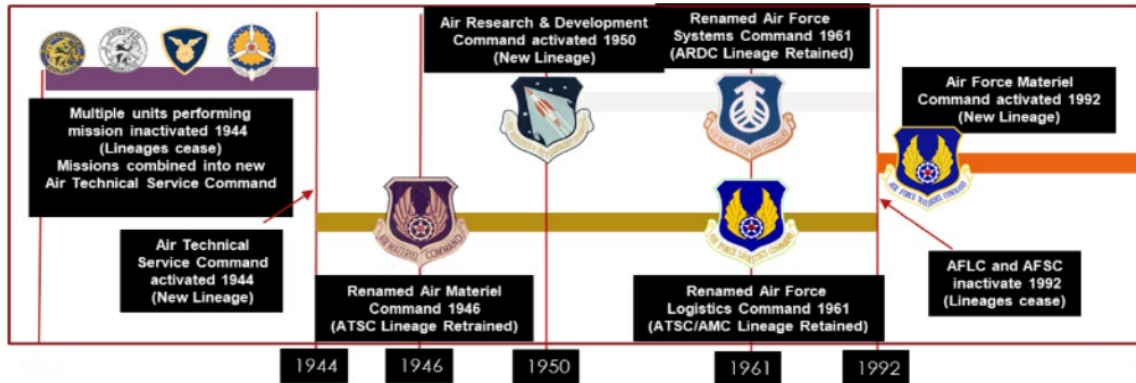
B. USAF CONTRACTING MISSION

Over the years, the overarching mission and vision of the contracting workforce in the USAF has changed, but the changes all rotate around the same general principle: warfighter support. Led by the Deputy Assistant Secretary for Contracting, Major General Alice Ward Trevino, the current mission of the contracting workforce is to "cost effectively modernize to deliver capability to the warfighter when needed" (Air Force Contracting Central, n.d.). Whether this is the refuse service as part of base support or retrofitting an F-35A "to improve its Suppression/Destruction of Enemy Air Defenses capability" (Tirpak, 2020, para 1), the contracting workforce answers the warfighters call to bring in outside assistance. Much of how this workforce operates is thanks in part to how the contracting command is structured; the next section will overview the USAF contracting command history.

C. USAF CONTRACTING COMMAND HISTORY

The USAF has been contracting since even before its inception as a force in September 18, 1947 (Proietti, 2014, para 4), but its current organizational structure, being a combination of the Air Force Systems Command (AFSC) and the Air Force Logistics Command was made official in 1992, with the standing up of the Air Force Materiel Command (HQ AFMC/HO, n.d., p. 7).

At its inception, the Air Force saw a need in the contracting community to better organize themselves, and in 1950, the "Air Research and Development Command

29

(ARDC)" (HQ AFMC/HO, n.d., p. 5) was created. While ARDC focused on research and development, a predecessor to AFMC, the Air Materiel Command (AMC) was focused on "sustaining the current fleets logistics" (HQ AFMC/HO, n.d., p. 5). Even in its early years, the USAF understood that they needed diversification in their acquisitions, and that the R&D world was different than the sustainment and logistics worlds. However, as time went on, restructuring due to the Cold War was needed, and ARDC became the Air Force Systems Command (AFSC), which "assumed ARDC's R&D, weapons systems acquisition and test responsibilities, as well as AMC's acquisition and procurement missions" (HQ AFMC/HO, n.d., p. 7). This would represent a change in how procurement was handled, as the minds who accelerated the Space Race were paired with those who were used to the slower-paced life of sustainment acquisitions. This centrality of command structure was utilized from 1961 to 1992, which was two decades longer than they maintained AMC and ARDC (HQ AFMC/HO, n.d., p. 7). Figure 5 shows the changes in ARDC and AMC, and how they all led to AFMC.

Figure 5.   AFMC foundational Commands heritage timeline from 1917 to
AFMC activation in 1992. Source: HQ AFMC/HO (n.d.)

An additional important change for the USAF contracting mission came in December 20, 2019 (United States Space Force, n.d., para. 1), with the standing up of the USSF as their own service, under the Department of the Air Force. While the USAF had already been accomplishing a space mission with units such as the Space and Missiles Center, the new service to the USAF brought along its own challenges, and unique mission needs. One such example is that space systems have been overly reliant on OTA agreements, to the fact where most USAF consortiums are for the USSF. While all USAF contracting officers have been trained with the DAU curriculum, they have honed their skills with on-the-job training. Another example was the decision not to have a dedicated USSF contracting workforce; in fact, as of this writing, the USSF still primarily relies on USAF contracting officers for their needs and continues without a dedicated contracting workforce. However, the USAF has been directly supporting the space mission for years and will continue to provide acquisition support for their sister service where it is needed.

31

Whether it is AFMC or the USSF, the USAF is able to provide agile support on-demand, thanks to the leadership that runs the USAF; the next section will cover the USAF contracting's leadership and vision.

D.   USAF CONTRACTING LEADERSHIP AND VISION

Throughout its history, the USAF contracting mission has mostly stayed the same, though the vision and leadership have evolved new facets for the force to focus on. Under the reign of Major General Cameron Holt, the USAF contracting workforce aimed to be "mission-focused business leaders driving modernization, readiness, lethality" (Air Force Contracting Central, n.d.). This change helped the USAF contracting workforce understand how their job fit into the greater picture of warfighter support. It also helped the USAF contracting force to be more proactive in the contracting life cycle, instead of reacting to their mission partner's and customer's needs; they were tasked with being leaders in an acquisition and delivering sound business advice while the acquisition was being planned in its infancy.

Replacing Major General Holt, as previously mentioned, is Major General Trevino, whose vision, much like DAU, is to go back to basics: "Alignment, Prioritization & Simplification (APS)" (Trevino, 2022, para. 2). A concern about the USAF contracting workforce is that it does not understand it's role in the USAF mission, and how it truly supports the warfighting effort; the workforce is proficient but are often unsuccessful in understanding the strategic impacts of their specific contract action. Combined this with an overly technical vernacular that is acquisition-centric, and General Trevino knew now was the time to simplify all of this. Her vision helps the workforce to be "aligned with Senior Leaders…(while) prioritizing & ensuring we critically think to understand risks & make necessary tradeoffs… (and making sure) we communicate in simple, easy-to-understand terms" (Trevino, 2022, para. 2). These priorities seem to best fit with the agile nature of an OTA, and indeed, the USAF has been utilizing the OTA; the next section will address how the USAF contracting has used their OTA authority.

E.   USAF CONTRACTING AND OTA AUTHORITY

While the use of an OTA is not new in the USAF, it should be noted that the USAF is not the main purveyor of OTA agreements; in fact, the "Army remains the leader in OTA usage among the Defense Department," even though the USAF has seen a steady growth in OTAs, with 2018 statistics showing an increase in OTA obligations "by 190 percent" (Harper, 2021, para. 11). While the OTA agreement is still vastly outnumbered by a FAR-based contract, the need for speed and agility in the USAF, and having to accelerate a recent decline in prototyping, has led many USAF contracting officers to use the OTA.

It was mentioned that FAR-trained contracting officers in the USAF use OTAs, though it was previously noted that an AO does not have to be in the contracting workforce. The Air Force Materiel Command (AFMC) is one of the primary arms of USAF contracting and procurement. AFMC's 2020 policy states that anyone hoping to become an AO shall "currently hold an unlimited Contracting Officer warrant" (Bullock, 2020, para. 2b). This effectively limits the amount of people that can hold an AO warrant in the USAF. However, it also fulfills the DOD's OT Guide recommendation for ensuring AOs have relevant contracting expertise.

F.   SUMMARY

In summary, this chapter provided an overview of contracting and OTAs in the Air Force. First, I described the USAF contracting mission. Next, I illustrated the contracting command history. Following this, I identified the USAF contracting leadership and vision. Finally, I explained the USAF contracting and OTA authority. With a basis for how AFMC and contract management are structured, it is important to understand how the data in this research will be obtained and examined. In the next chapter, I will discuss the methodology that will be used to receive and analyze the data in this research.

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IV. RESEARCH METHODOLOGY

A. INTRODUCTION

This chapter will discuss the research methodology that will be used in this research. First, I will explain the types of data that will be analyzed. Next, I will describe the sources of that data, and how that data will be accessed. Finally, I will discuss the method that I will use to analyze the data.

B. TYPES OF DATA

In order to answer the research questions discussed in Chapter I, the following types of data will be accessed. Four data fields will be used to conduct this research. Below are the data fields:

1. Career field

2. Education level

3. Years of experience

4. PCO status

These are the four levels of data fields that I will be analyzing.

C. SOURCES OF DATA

Data will be gathered from two distinct bases within the U.S. Air Force and Air Force Materiel Command. Both bases represent diverse mission sets that had to have a requirement for OTA AOs. The points of contact for the respondents will be anonymously asked to provide the AOs data points discussed. The points of contact will be given a choice to provide as little or as much information within those data fields as they choose but will be asked to at least provide information applicable to each of the four fields. This data will then be analyzed using certain methods.

D. DATA ANALYSIS

This research aims to see if there are any patterns in how the USAF assigns their OTA AOs, and if so, offer explanations as to why there are patterns. The data will be combined so that there are not any assumptions made at individual bases; the intent of this research is to identify patterns in the greater USAF, and not solely at individual bases. Descriptive analysis will then be used to organize the data to identify patterns. Finally, recommendations will be made on what the USAF and AFMC can do to improve their AO assignment process.

E. SUMMARY

In summary, this chapter discussed the research methodology that will be used in this research. First, I showed the types of data that will be collected. Next, I described the sources of data, and how that data will be accessed. Finally, I defined the method that I will use to analyze the data. With an overview on the methodology, I will now present what was found in the data that was obtained. The next chapter will show my findings, analysis, implications, and recommendations.

V. FINDINGS, ANALYSIS, IMPLICATIONS, AND RECOMMENDATIONS

A. INTRODUCTION

This chapter will discuss the findings, analysis, implications, and recommendations of the research. First, I will discuss the findings of the research. Next, I will provide an analysis of the findings. I will then describe the varied implications of the findings. Finally, I will provide recommendations for the DOD and USAF based off the findings.

B. FINDINGS

The purpose of this research was to conduct an analysis of a sample population of Air Force Agreements Officers. I received data elements concerning career field, education, years of experience, and PCO status. In total, there were 23 AOs from two different USAF bases. The results of the data collected are shown in Table 3.

Table 3.   Master Database Received from AOs

AO	Career	Education	Years of Experience	PCO Status (Y/N)
1	1102	MBA	7	Yes
2	1102	Masters	10	Yes
3	1102	Masters	8	Yes
4	1102	Masters	9	Yes
5	1102	MBA	16	Yes
6	1102	MS	5	Yes
7	1102	MBA	11	Yes
8	1102	MBA	12	Yes
9	1102	BS	15	Yes

AO	Career	Education	Years of Experience	PCO Status (Y/N)
10	1102	Masters	7	Yes
11	1102	MBA	15	Yes
12	1102	MBA	8	Yes
13	1102	MS	5	Yes
14	1102	MA	14	Yes
15	1102	BS	12	Yes
16	1102	MBA	18	Yes
17	1102	BS	9	Yes
18	1102	BS	7	Yes
19	1102	BS	11	Yes
20	1102	MBA	8	Yes
21	1102	MA	17	Yes
22	1102	MBA	13	Yes
23	1102	BIS	15	Yes

1.   **Career Field**

As shown in Figure 6, data was received on 23 AOs. Of the 23 AOs, all 23 of them were from the civilian 1102 contracting career field. There were no other reported data points of another primary career field within the dataset received on the 23 AOs.
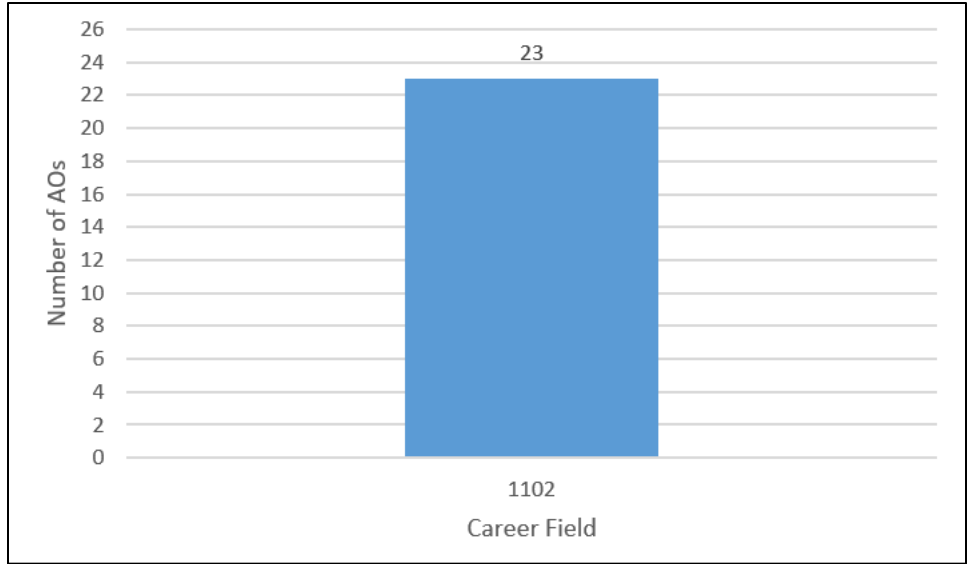
Figure 6.   Count of AOs by Career Field

2.   Education

The educational background of the AOs was not described in specific terms, so to better differentiate the education level, I have added a column, reflected in Table 4. The differentiator shows the difference between those AOs with undergraduate-only degrees, labeled Undergraduate, and those AOs with undergraduate- and graduate-level education, labeled Graduate.

Table 4.   Data Received from AOs with Education Differentiator

AO	Career	Education	Education: Undergraduate only or Graduate Differentiator	Years of Experience	PCO Status (Y/N)
1	1102	MBA	Graduate	7	Yes
2	1102	Masters	Graduate	10	Yes
3	1102	Masters	Graduate	8	Yes
4	1102	Masters	Graduate	9	Yes
5	1102	MBA	Graduate	16	Yes
6	1102	MS	Graduate	5	Yes

39

AO	Career	Education	Education: Undergraduate only or Graduate Differentiator	Years of Experience	PCO Status (Y/N)
7	1102	MBA	Graduate	11	Yes
8	1102	MBA	Graduate	12	Yes
9	1102	BS	Undergraduate	15	Yes
10	1102	Masters	Graduate	7	Yes
11	1102	MBA	Graduate	15	Yes
12	1102	MBA	Graduate	8	Yes
13	1102	MS	Graduate	5	Yes
14	1102	MA	Graduate	14	Yes
15	1102	BS	Undergraduate	12	Yes
16	1102	MBA	Graduate	18	Yes
17	1102	BS	Undergraduate	9	Yes
18	1102	BS	Undergraduate	7	Yes
19	1102	BS	Undergraduate	11	Yes
20	1102	MBA	Graduate	8	Yes
21	1102	MA	Graduate	17	Yes
22	1102	MBA	Graduate	13	Yes
23	1102	BIS	Undergraduate	15	Yes

As reflected in Table 4, 17 AOs had a graduate-level degree, totaling 73.9%, whereas only 6 had an undergraduate degree, totaling 26.1% of the AO database. Of the undergraduate degrees, five out of the six were a Bachelor of Science, while one was a Bachelor of Integrated Studies. Of the 17 Graduate degrees, there were nine reported AOs with a Master of Business Administration, totaling 39.1% of the AO database. Of the other six graduate degrees, there were two Master of Science degrees, two Master of Arts degree, and four that only specified Master's degrees. Figures 7 and 8 show a

graphical breakdown of the educational background of the AOs. Figure 9 shows a percentage breakdown of the degree types of AOs.
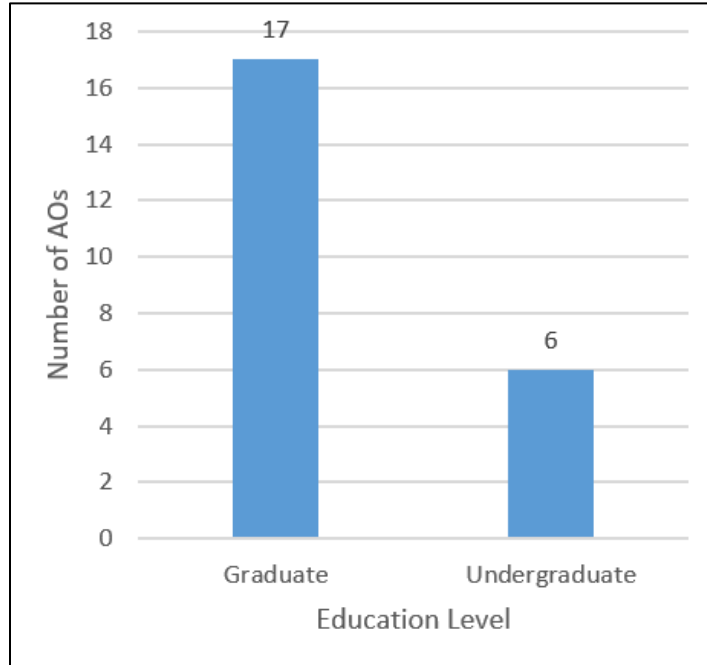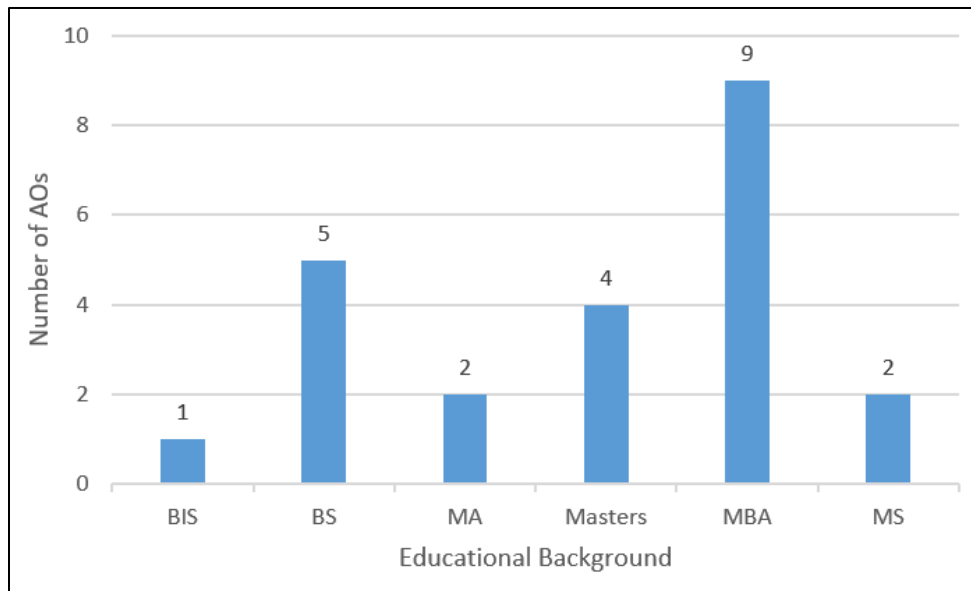

Figure 7.   Educational Background of AOs

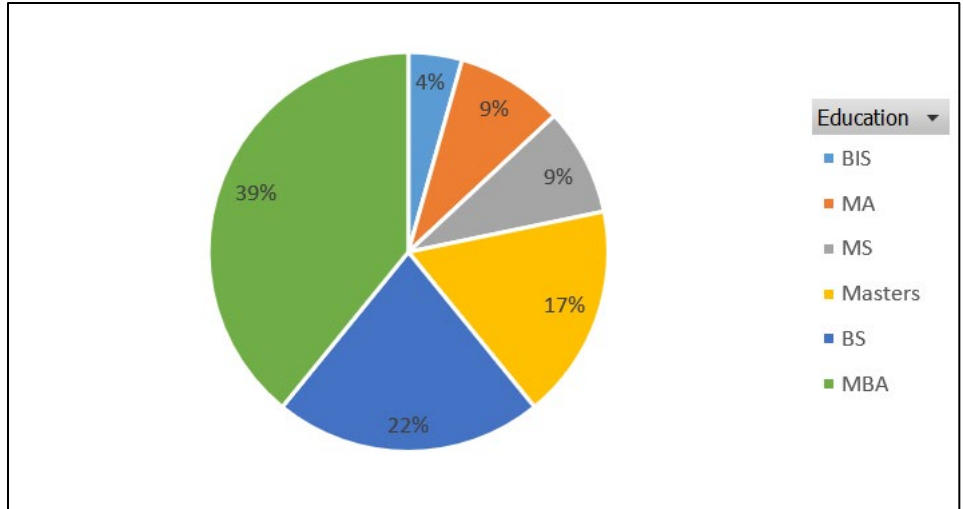Figure 8.   Scale of Degrees by AO

41

Figure 9.   Pie Chart Summarizing Percentages of Degrees of AOs

3.   Experience

Concerning years of experience in the career field, summarized in Figure 10, there was an average year of experience in the 1102 contracting career field of 10.95 years. In addition, the years of experience range from five and 18. There were two AOs with five years in the career field, which was the lowest number of years in the career field; both of these individuals had a Master of Science degree. The individual with the greatest number of years in the career field was 18 years; that individual had a Master of Business Administration degree.

When expressed in five-year increments, as shown in Figure 11, there were 10 AOs with five-to-nine-years of career field experience, 7 AOs with 10-to-14-years of career field experience, and 6 AOs with 15 to 19 years of career field experience.
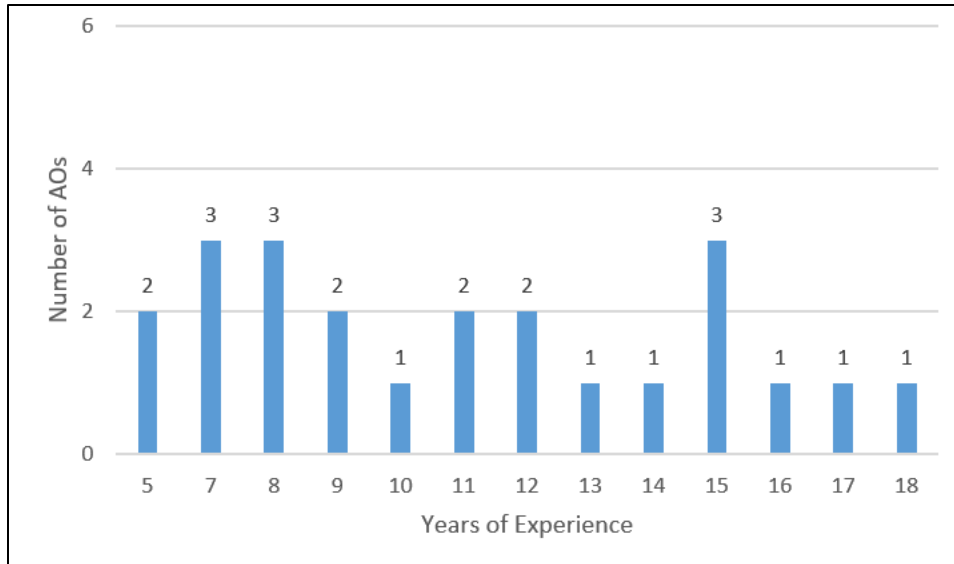
Figure 10.   Count of Years of Experience of AOs
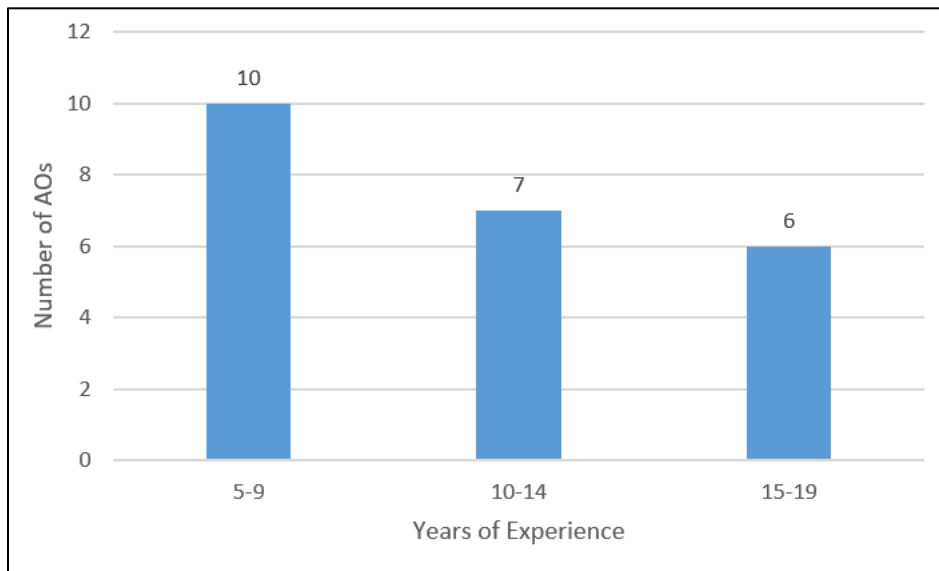
Figure 11.   Five-Year Increments for Years of Experience of AOs

When I analyze both degrees and experience, as shown in Figure 12 and Table 5, the greatest number of total degrees, regardless of a graduate differentiator, were those AOs who had seven, eight, and 15 years of experience, with a total of three AOs for each

43

year group. From this same graph, it is also clear that the greatest number of undergraduate-only degrees was at the 15-year mark, with two AOs, and the greatest number of graduate degrees was at the eight-year mark, with three AOs.

When expressed in five-year increments, as shown in Figure 13 and Table 6, the highest number of degrees was in the five-to-nine-year range, with a total of 10 AOs with degrees, whereas the lowest was in the 15-to-19-year range, with a total of 6 AOs with degrees.
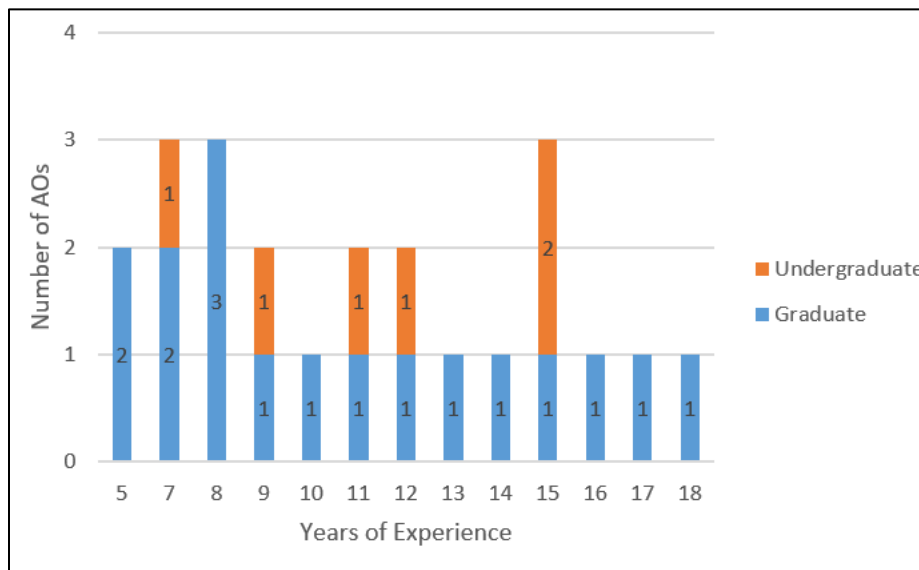
Figure 12.   Comparison of Years of Experience to Degree Level

Table 5. Heatmap of Degrees by Years of Experience

Count of Years of Experience Row Labels	BIS	BS	MA	Masters	MBA	MS	Grand Total
5						8.70%	8.70%
7		4.35%		4.35%	4.35%		13.04%
8				4.35%	8.70%		13.04%
9		4.35%		4.35%			8.70%
10				4.35%			4.35%
11		4.35%			4.35%		8.70%
12		4.35%			4.35%		8.70%
13					4.35%		4.35%
14			4.35%				4.35%
15	4.35%	4.35%			4.35%		13.04%
16					4.35%		4.35%
17			4.35%				4.35%
18					4.35%		4.35%
Grand Total	4.35%	21.74%	8.70%	17.39%	39.13%	8.70%	100.00%

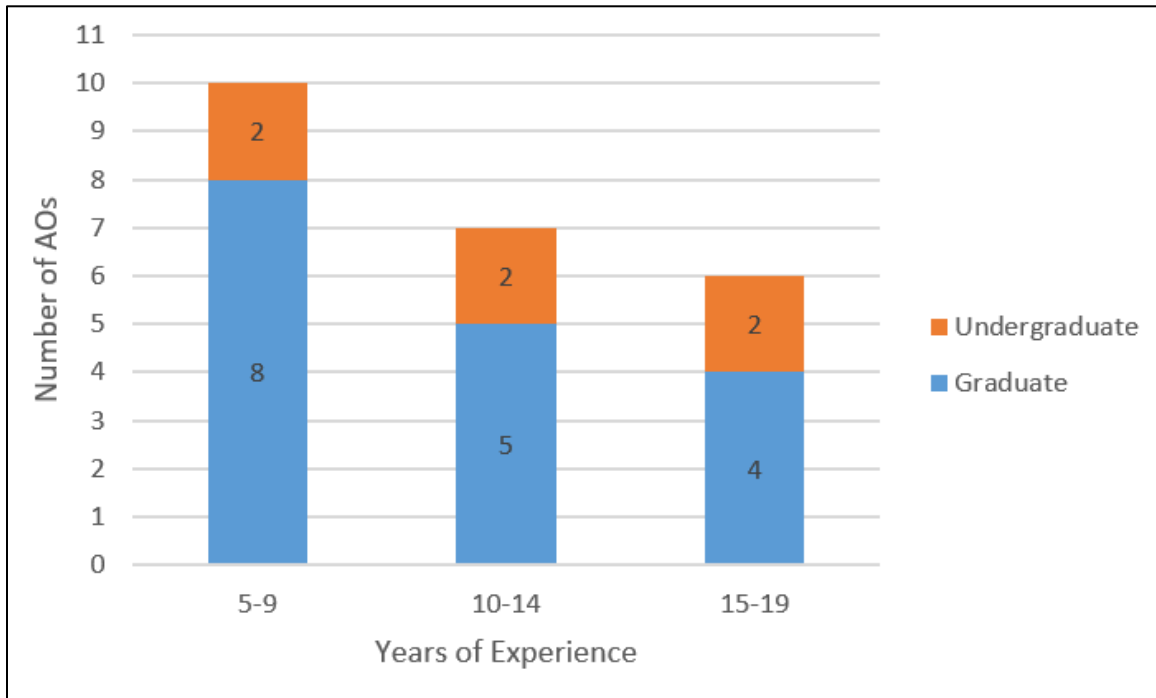| Legend	
Least Education	Most Education

Figure 13. Five-Year Increments Comparison of Years of Experience to Degree Level

45

Table 6. Five-Year Increments Heatmap of Degrees by Years of Experience

Count of Years of Experience	Column Labels						
Row Labels	BIS	BS	MA	Masters	MBA	MS	Grand Total
5-9		8.70%		13.04%	13.04%	8.70%	43.48%
10-14		8.70%	4.35%	4.35%	13.04%		30.43%
15-19	4.35%	4.35%	4.35%		13.04%		26.09%
Grand Total	4.35%	21.74%	8.70%	17.39%	39.13%	8.70%	100.00%

Legend
Least Education   Most Education

4.   PCO Status

Finally, concerning PCO status, all the AOs were from the 1102 civilian contracting career field. All AFMC AOs that were approved to hold AO status were required to hold an unlimited warrant. AOs prior to this policy came from the 1102 civilian contracting career field. The dataset reflected that each AO indicated a PCO status of "Yes," as shown in Figure 14.
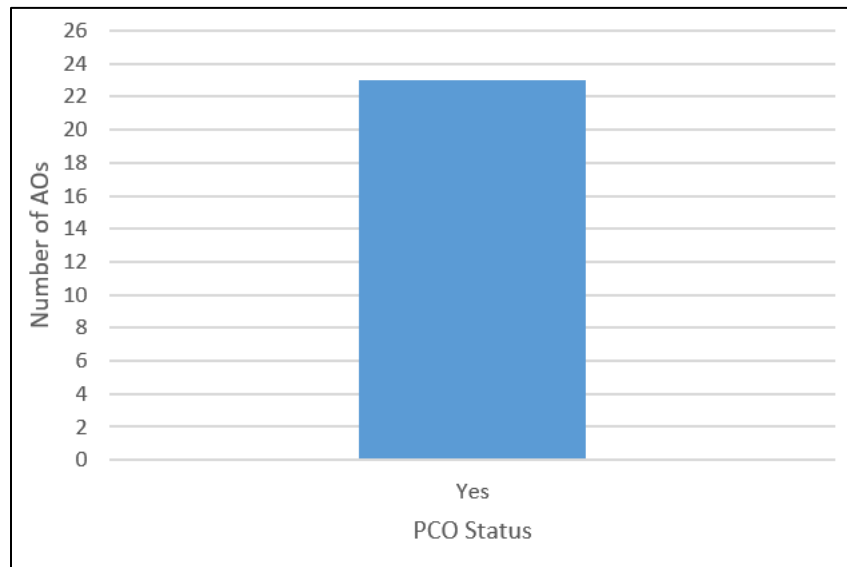

Figure 14.   PCO Status

46

Given these findings, there are a multitude of ways to discuss the aforementioned dataset findings reflected in the charts. The next section will focus on a discussion of the findings from the dataset.

C.   DISCUSSION OF FINDINGS

All contracting organizations have professionals with minimal years of experience, some with five to nine years of experience, some with 10 to 14 years of experience, and others still with 15 or greater years of experience; the findings from my dataset mirror this categorization of experience. The breakout of the findings in terms of years of experience reflect a typical contracting organization experience base. These members entered the contracting workforce under the former DAWIA program, which required a college degree. In most contracting organizations across the DOD and the USAF, earning a graduate degree makes one competitive for promotion for higher grades, but also competitive for PCO assignment. For example, in the 1102 civilian career field, "3 full academic years of progressively higher level graduate or Ph.D. or equivalent doctoral degree" (Herrington, 2020, Reference B) is a pre-requisite to be hired into a GS-11 position. The USAF even encourages their members to pursue graduate degrees in their Career Field Education and Training Plan, in accordance with their continuous development (Holt, 2019, p. 24). The 1102 career pyramid is listed in Figure 15, and graduate education is often seen as highly desirable to continue up the 1102 career pyramid. Most offices have a workforce with a varied number of years of experience, so seeing AOs with a range of five to 18 years of experience does not appear unusual.
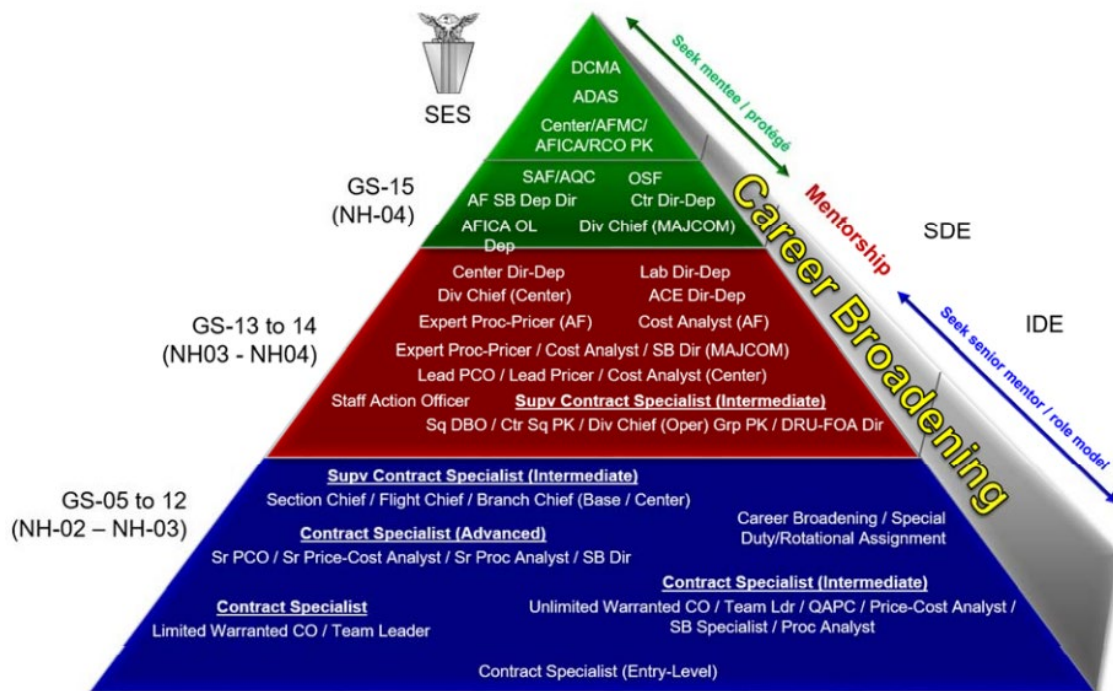
Figure 15.   Air Force Civilian Contracting Career Pyramid.
Source: Holt (2019)

However, the number of individuals from the contracting workforce, and the subsequent subgroup of that career field, requires further discussion. Further, the number of graduate degrees compared to the number of undergraduate degrees, when analyzed by years of experience, also requires further discussion. This section will discuss the findings related to career field, education, experience, and PCO status.

1.   1102 Civilian Contracting Career Field

The most noticeable finding in this research was that of the career field, as 100% of the 23 AOs came from the civilian 1102 contracting career field. This dataset did not include secondary or previous career field, and only focused on the career field that the AO was assigned to at the time they held an AO warrant. This dataset came from AFMC, and AFMC policy specifies that an AO must hold an unlimited contracting officer warrant at the time they apply for an OTA AO warrant. It is interesting that none of the

AOs in the dataset were from a military career field and were only assigned from the civilian contracting career field. Additionally, it is noteworthy that 100% of the AOs held a PCO status, as none of them were without some kind of PCO warrant status, whether limited or unlimited.

2. **Graduate-Level Degrees Compared with Undergraduate-Level Degrees by Years of Experience**

Another thought-provoking finding was that 73.9% of the AOs had at least a graduate-level education, with 60% of those graduate degrees being a Master of Business Administration. Expressed as a total of all AOs, this shows that at least 39.1% of all AOs in this dataset had a Master of Business Administration, or some type of graduate educational background in business. This dataset did not focus on degree specialization, so there could be a higher number of AOs with a business background, especially as 24 college business hours used to be a DAWIA requirement to enter the contracting career field. Also, within the educational dataset, there was a greater number of AOs between five- and nine-years of experience, totaling 43.5% of the AO population. Additionally, the number of AOs declined between 10- and 14-years of experience, totaling 30.4% of the AO population. Furthermore, the lowest number of AOs was between 15- and 18-years of experience, totaling 26.1% of the AO population. From this, the dataset shows a balance within the bachelors and above level of education shown in Figure 14, where the five- to nine-year group contained eight graduate degrees, the 10- to 14-years of experience contained five graduate degrees, and the 15- to 18-years of experience contained four graduate degrees. However, Figure 14 also shows that each of the five-year year groups is perfectly balanced, with two AOs holding a bachelors-only degree for each five-year group. These results are deserving of further discussion and may likewise have some interesting implications for the USAF that need to be considered; the next section will focus on possible implications of these findings.

49

D. IMPLICATION OF FINDINGS

If this sample of 23 AOs is representative of all the USAF AOs, there are some interesting implications that the USAF needs to consider when potentially assigning their AOs.

1. AFMC is Only Utilizing Civilians as AOs

First and foremost, AFMC does not appear to be leveraging their military workforce for a role as an AO. Generally, civilians have a longer tenure in an organization. Civilians are not often required to perform a Permanent Change of Station (PCS) every three to four years and are not subject to no-notice deployments, whereas these movements are required of their military counterparts. Perhaps this is the reason AFMC specifically utilizes civilians as AOs, as AFMC views a civilian's lack of movement as a favorable factor in assigning AOs.

A potential advantage of only using civilians is that AFMC can rely on a predictable and stable workforce that could see an OTA to completion without military service interruptions. Due to the civilian workforce having a longer tenure in an organization, perhaps they have more historical knowledge and history of the programs that they are working on, which can help to inform the other AOs in their office. A military member's brief tenure in any assignment makes it difficult to earn an unlimited warrant, let alone an AO warrant.

A potential disadvantage of AFMC only using civilians as AOs is that, since the AO is not from the military ranks, the military workforce is not getting experience in non-FAR-based contract management. This may limit the amount of contract acumen that the military could be exposed to, and therefore removes the ability for the military member to gain valuable, rich experience from working and managing agreements in an OTA program. This means that a military member may miss out on non-FAR contract management assignments, and perhaps AFMC has a smaller pool of applicants by which they can fill their vacancies. Finally, there are military officer and enlisted in the contracting career field that hold an unlimited warrant. AFMC requires an unlimited

50

warrant to be nominated for an AO warrant. Even still, this dataset shows that the military is not being utilized as AOs.

2. AFMC is Only Utilizing the Contracting Workforce as AOs

Next, AFMC does not appear to be utilizing their non-contracting workforce as AOs. The AFMC policy limits AOs to be an assigned contracting officer due to the requirement for an unlimited warrant, so it was expected to see all AOs from the contracting workforce. However, there is nothing in the DOD OT Guide that prevents a non-contracting military or civilian from becoming an AO.

A potential advantage of only using a contracting workforce as AOs is that all 1102s know FAR-based contracting, whereas non-1102 are not formally trained in any contract management skills. Thus, perhaps one reason for not choosing a non-contracting workforce could be a lack of contract management acumen. However, as previously discussed in Chapter II, there is a difference between contract management acumen and FAR-based contracting. For example, as reflected in Chapter II, the Contract Management Body of Knowledge (CMBOK) discusses the principles and concepts of contract management. The FAR discusses how those principles and concepts are applied in the federal Government. Perhaps AFMC believes that the competencies in managing FAR-based contracts are indicators of being able to manage non-FAR-based contracts. Perhaps this is why all AOs must have already gained their organization's trust and hold an unlimited warrant.

A potential disadvantage is that there may be non-1102 civilians that are equally skilled in managing OTAs but would not be given an opportunity. While a non-1102 civilian would still need some training on contract management before they could formally be assigned as an AO, some non-1102 civilians may hold special career field skills that are better suited to the role of an AO. For example, a finance officer may be a competent AO if the concern is whether or not the business is financially stable. Further, an engineer might be a competent AO for a more technical procurement, as they can comprehend the steps that the contractor is taking, and can collaborate with the vendor base more closely.

3. Greater Predominance of MBAs in More Experienced AOs

Concerning the lower number of MBA degrees in the group of AOs that are in the first segment of five-years, as reflected in Table 5, there are many possible reasons why the less experienced workforce does not have an MBA. First, perhaps the less experienced workforce does not think that a business degree is valuable to the USAF anymore. With removing the 24 college business credit hours, a new 1102 civilian can enter the career field with no business knowledge for the first 10 years of their career and obtain a PCO warrant. Second, perhaps the less experienced contracting workforce has not achieved the time in their careers whereby they believe that they need an MBA degree. Even so, this is still an important pattern, as MBA and other business degrees provide professional competency, aside from only having FAR-based knowledge. In working with OTAs, an AO requires more knowledge of risk management, business management, and financial management of a company before an OTA is awarded to a company, but an individual without a business background may not have this knowledge base. Finally, perhaps the less experienced workforce has not realized the value in a graduate business degree. Some offices may feel like professional development is separate from educational development, and the less experienced workforce may not believe that they should increase their business acumen, and that FAR-based contracting acumen is most important in the beginning of their careers. Either way, the USAF needs to monitor this demographic. A pattern of reduced business education, and thus business acumen, could easily become a trend, with the elimination of the 24 college business credit hours.

An advantage of less MBAs in the less experienced workforce could impact professional development. Perhaps offices are encouraging their members to put professional development first, and do not see an advantage in a graduate education for a less experienced member. Another advantage of this is that perhaps the less experienced member will have a singular focus to develop technical expertise, before they are allowed to pursue graduate education. After all, perhaps some organizations believe that there is value in a graduate education, but only after a less experienced member fully understand

52

FAR-based contracting. Perhaps the focus for the less experienced member is to master their initial skillset.

A disadvantage of this is that there are less opportunities for completing business education degree programs in the less experienced workforce. The USAF prides itself on being mission-focused business leaders, as discussed in Chapter III. However, if a less experienced member does not pursue graduate education, specifically an MBA, perhaps the only business knowledge that less experienced members will receive in the formative years of their career is that of FAR-based contracting policies. As reflected in Chapter II, FAR-based contracting is limited in scope from contract management. Perhaps the USAF is holding back their members from gaining a deeper understanding of the generally accepted business management principles and concepts than their contractor counterparts. Finally, the idea that a graduate business education is solely for the more experienced workforce may cause less experienced members to stay away from graduate business degrees. Perhaps the less experienced member may never understand the point in their career when they transition to become a member in the more experienced years; after all, rank and grade may not always dictate seniority in an organization. Perhaps they begin to believe that an MBA is only for the more experienced management and may miss out on understanding the deeper business principles that a graduate business education would bring to their career development.

4.   Less Experienced Members Not Being Utilized as an AO

Finally, considering years of experience, it was expected to see AOs with at least a minimum of five years in contracting, especially considering AFMC's unlimited warrant requirement. However, as of this research, all of those AOs have been trained under FAR-based courses. This means that those AOs are relying on years, and for 12 of the AOs, decades of FAR-based knowledge in a distinctly non-FAR-based environment. It is not surprising that the GAO found that AOs are having trouble understanding the "benefits and challenges of different ways to structure OTAs" (Government Accountability Office, 2022). When faced with an uncertain contract environment, perhaps AOs are resorting back to the contract management skills that they were trained

53

under, which has only been FAR-based training. As such, AFMC will continue to see OTAs that are governed as if they were FAR-based contracts. Thus, the need for AOs to receive training on generally accepted contract management principles, such as those established in the Contract Management Standard and the CMBOK.

One advantage of not utilizing less experienced members is that the AOs have at least five years of experience in FAR-based contracting. Perhaps contracting organizations feel that AO duties are similar enough to FAR-based contracting officer duties. Perhaps contracting organizations feel OTA procedures are similar enough to the FAR's policies. However, as reflected in Chapter II, this is not the case. As of this research, the OT Guide is the only procedural document for OTAs, and the OT Guide is only a non-binding guideline. Thus, AOs may be resorting to their FAR-based training to solve any issues, instead of contract management principles and concepts.

A disadvantage of utilizing more experienced contracting officers is that they are bringing in their FAR-based training. This FAR-based training may be limiting and restricting a more experienced contracting officer's thinking, as many do not have contract management acumen outside of the FAR. Perhaps the more experienced workforce's FAR-based training is hindering them from leveraging the flexibilities and less restrictive guidance in using a non-FAR-based contract. Perhaps without a thorough training program for OTAs, the senior workforce cannot understand how to effectively manage an OTA. Based on the findings and implications of these findings, I provide the following recommendations below.

E.   RECOMMENDATIONS

These findings, and the implications of these findings identify areas for possible improvement in the selection of AOs by AFMC and perhaps the USAF as a whole. This next section will discuss recommendations for improving AO selection within AFMC based on career field, education, years of experience, and PCO status.

1.   **Recommendation #1: Consider Assigning Other Civilian Career Fields as AOs**

The USAF should consider the benefits of assigning non-contracting civilians to hold AO authority. The DOD has been training on FAR-based contracting for years and have produced many monumental platforms, like the F-22 Raptor, the Joint Strike Fighter, and the KC-46 refueling tanker. The contracting workforce is extremely knowledgeable on FAR-based contracting, and that knowledge remains in the workforce, as long as the workforce is operating in a FAR-based environment. However, the DOD has only recently encouraged the workforce to contract with non-FAR-based contracts. In the few years that the DOD has accelerated OTA use, both the IG and the GAO have already reported concerns on whether OTAs are being executed to their fullest extent. The USAF may consider assigning those career fields outside of contracting to hold limited AO authority. The USAF already allows individuals from other career fields to cross-train into contracting. Given a proper contract management education, the USAF may benefit from allowing those within other career fields to serve as an AO, based solely on the skills and competencies within that career field. For example, given their career field competencies, a logistician, Judge Advocate General, or a project manager could serve more competently as an AO, as compared with a FAR-trained contracting officer. The contracting policy makers should continue to maintain oversight on all individuals with AO warrants, but contracting leadership does not have to solely assign their own people as AOs.

An advantage of this recommendation is that the USAF will be able to better utilize other career field skills for use in the OTA environment. For example, if an OTA is much more technically based and requires a more specialized insight, perhaps an engineer could serve as an AO. If there are concerns that OTA obligations need to be better tracked, then perhaps a finance officer would be better suited to hold AO authority, if they were given proper contract management training.

2. Recommendation #2: Consider Assigning Military Members as AOs

Many military in the officer (64P) and enlisted (6C0) career fields prove themselves competent enough to hold a FAR-based unlimited warrant. Senior contracting officials should consider whether that individual is competent enough in their career field to handle an OTA AO warrant, as well. Additionally, AFMC should consider assigning non-contracting military members as AOs. The DOD is already encountering problems within the OTA community, even when AO assignment is limited to civilian contracting officers in AFMC. These problems may continue to get worse until they are addressed.

An advantage of this recommendation is that the DOD military prides itself on holding their members to higher standards. Given an opportunity, a military member may excel in a non-FAR-based environment without encountering the same problems that current AOs are experiencing. Due to their ability to adapt to foreign environments, even if a military contracting member was trained in FAR-based contracting, they may be able to adapt to a non-FAR-based contracting environment quicker than their civilian counterparts. Even military career fields outside of contracting, like logistics, civil engineering, and finance, may excel in the role of an AO, of which a small example was provided in Recommendation #1. That member would still have to comply with the warranting process and the warranting requirements set forth by Air Force contracting policy, but certain members may thrive in the OTA environment. Another advantage of this recommendation is that this increases the candidate pool from which the USAF may select an AO. The USAF contracting workforce has at times been undermanned, even being added to the "'stressed' list" as recent as 2015 (Schogol, 2015). To increase the number of potential AOs that AFMC could consider to serve as an AO, they may assign AOs from acquisition and acquisition-like career fields with special expertise. This expertise could include business or technical skills, or even a willingness to learn about non-FAR-based contracting.

56

3. Recommendation #3: Provide Foundational Training on Generally Accepted Contract Management Principles and Concepts

Considering a history of FAR-based training within DOD and the limitations this places on contracting officers, the DOD is taking steps to address this concern with the Back-to-Basics focus, with the adoption of the Contract Management Standard. However, many of the more experienced members in the workforce have received years of FAR-based training. The more experienced workforce is not required to go back and pursue foundational training on generally accepted contract management principles and concepts. As reflected in Chapter II, many AO competencies align well with the contracting career field, but they do not align well with the FAR-based training contracting officers have received. In order to better manage an OTA, and accomplish the intent of the CSAF, the USAF should spearhead a non-FAR-based foundational training program that covers contract management principles and concepts.

An advantage of this recommendation is that this will ensure that a contracting professional receives proper training to ensure that they can operate in any contract management environment. This non-FAR-based training program will help FAR-trained contracting officers expand their FAR expertise with a broader scope of basic contract management concepts and principles and the flexibility that comes with non-FAR policies. By doing so, the USAF may be able to instill in its workforce "a stronger foundational understanding of not only the complete contract life cycle (pre-award, award, post-award), but also with an understanding of the different perspectives in contractual relationships (e.g., buyer, seller, subcontractors, suppliers, etc.)" (Rendon, 2019, p. 24). Additionally, non-FAR-based training may "help in developing technical and professional skills that can transfer across government and industry, as well as improve communication and collaboration between government and industry" (Rendon, 2019, p. 24). There is value in understanding more than just the FAR policies. Generally accepted contract management principles and concepts, such as those in the CMBOK and the CMS, inform FAR policies, and understanding these principles and concepts help to produce a higher level of competency for contracting officers, regardless of the governing regulations under which they are operating. This understanding of generally accepted

57

contract management principles and concepts also gives insight into contracting, both on the buyer's side, but also the seller's side. A well-rounded contracting officer should want to understand both the buyer and the seller aspects of contract management concepts and principles. Furthermore, this will aid non-contracting personnel who could be assigned as AOs understand proper contract management processes, like pre-award, award, and post-award processes, without the application and restrictions of the FAR.

4. Recommendation #4: Provide Business Management Training

Finally, one of the best ways that those in the contracting career field can prevent training stagnation is with self-education. The number of individuals that the change to Back-to-Basics will allow into the contracting career field without a business education will continue to increase, as the 24 hours of college business credits is no longer a pre-requisite to enter the contracting career field. To offset this, the USAF can consider providing basic business management training to fill the gap of losing the required 24 hours of college business credit for entry-level 1102 civilians and military equivalent. While the USAF cannot and should not dictate what educational programs people can take, the USAF can dictate the training programs that an organization follows. The USAF contracting career field prides itself on being mission-focused business leaders. Being a mission-focused business leader may be difficult to do in the future when the newer contracting workforce does not have a deep enough understanding of business concepts. USAF contracting organizations may choose to provide basic business management training. The focus of this training could be basic business principles, such as "business management, financial management, project management, risk management, and supply chain management, as reflected in the NCMA CMBOK" (Rendon, 2019, p. 25).

The advantage of this recommendation is that the USAF contracting workforce will continue to be one of the top mission-focused business organizations in the DOD. Having a training program that is mandated across the workforce will aid in offsetting the removal of the 24 hours of college business credit, furthering business skills across the workforce. The resultant business training may also improve "critical thinking, problem-solving, and analytical skills, bringing increased efficiency to its contract management

58

processes" (Rendon, 2019, p. 25). Additionally, this may encourage more of the junior workforce to pursue graduate business education.

F.   SUMMARY

In summary, this chapter discussed the findings, analysis, implications, and recommendations of the research. First, I presented the findings of the research. Next, I provided a discussion on the findings. Then, I highlighted some implications of the findings. Finally, I provided recommendations to the DOD, USAF, and AFMC based off the findings. With these findings and recommendations in place, there are still a multitude of research areas to consider in the future. In the next chapter, I will provide a summary, conclusions, and areas for further research on OTA agreement officer demographics.

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VI. SUMMARY, CONCLUSIONS, AND AREAS FOR FURTHER RESEARCH

A. INTRODUCTION

This chapter will discuss the summary, conclusions, and areas for further research. First, I will give a summary of the research. Next, I will provide conclusions based off the research. Finally, I will highlight areas that I see require further research within DOD, USAF, and AFMC.

B. SUMMARY

The Chief of Staff of the Air Force (CSAF) charged the USAF with accelerating the fielding of new and innovative capabilities. While the USAF continues to search for agilities and efficiencies in contract management, the USAF has begun to put more emphasis on non-Federal Acquisition Regulation (FAR)-based contracts; one of the most prevalent examples is a contractual agreement that uses other transaction authority (OTA), which are managed by Agreement Officers (AOs) from various career fields. For non-FAR-based contracts, the DOD required a new non-FAR-based training framework, which is different than the previous framework under which the FAR-based contracting workforce was trained. As such, the OTA AOs may not be properly educated or trained. Additionally, AOs may not be assigned from the appropriate career field. Furthermore, AOs may not have commensurate experience to manage OTAs, and may not have an appropriate procuring contracting officer (PCO) status.

Based on the above, there may be a problem that the individuals assigned to be AOs that are managing non-FAR contracts may not be from the proper career field, or have the necessary education background, or years of experience, or even status as a procuring contracting officer. The purpose of this research is to conduct an analysis of a sample population of Air Force Agreements Officers. I conducted this research by analyzing a sample of AOs from two bases within AFMC. I specifically analyzed career fields, educational background, years of experience, and PCO status. The next section provides the conclusions to my research questions.

C.   CONCLUSIONS

The data has produced several interesting results for the two bases within AFMC to consider in order to improve their AO selection program. From the dataset that was analyzed, I will provide answers to the following research questions.

(1)   From what career fields are the AOs are selected?

After analyzing the data of the 23 AOs observances, 100% of them came from the 1102 civilian contracting career field. There were no instances of civilians from a non-contracting career field. There were no instances of any military members assigned as AOs.

(2)   What are the educational backgrounds that the AOs have completed?

The data analysis found that the educational backgrounds were varied, though there was a consistency of graduate degrees. In total, there were six AOs having undergraduate-only degrees, totaling 26.1% of the AO population, and 17 AOs having graduate-level degrees, totaling 73.9% of the population. Of the undergraduate-only degrees, there were five Bachelor of Science degrees, and one Bachelor of Integrated Studies. Of the graduate-level degrees, there were four unspecified Master's degrees, two Master of Arts degrees, two Master of Science degrees, and nine Master of Business Administration degrees. The greatest number of degrees was the Master of Business Administration, totaling 34.6% of the total population of AOs, or nine AOs. The lowest number of degrees was the Bachelor of Integrated Studies, totaling one AO at 3.8% of the total population, or one AO. There was also a pattern of fewer MBA degrees among the less experienced workforce, as opposed to the more experienced workforce.

(3)   What are the years of experience in those career fields?

The analysis of the data found that the years of experience in the 1102 civilian career field that the AOs came from ranged from five to 18 years, with an average of 10.95 years. The lowest number was five years of experience, and the highest number was eighteen years of experience. The highest number of AOs came from the 7, 8, and 15

62

year groups, with a total of three each. The lowest number of AOs came from the 10, 13, 14, 16, 17, and 18 year groups, with a total of one each.

(4)   What are their PCO statuses?

I found that, of the 23 AOs, 100% of them positively indicated a PCO status. AFMC currently limits the individuals that hold AO authority only to those who also have an unlimited warrant. Even prior to this policy, all AOs were still from the 1102 contracting career field. There were no other instances of an AO without a positive PCO status.

(5)   What are the implications of the findings of this research in terms of selection criteria or AO competency?

There are implications of the findings of this research in terms of AO demographics from the sampled population that can be reviewed after analyzing the data.

First, AFMC may not be leveraging their youngest and brightest minds within the military workforce, non-1102 civilians, and the junior workforce by not assigning them as AOs. If AFMC continues their policy of requiring an unlimited warrant as a requirement to serve as an AO, there is nothing stopping a military member from being considered for a role as an AO. This is not to say that a military member should always be considered for a role as an AO; this is only to note that a military member with the same qualifications as an 1102 civilian should be considered. This policy will continue to limit AFMC's ability to assign AOs, especially if they restrict AO status to those with an unlimited warrant in the contracting career field.

Considering educational background, the number of business degrees should give the USAF confidence, especially considering the scope of business acumen that the role of an AO should have. However, it is important to note that there consistency with MBAs, as six out of the 9 MBA degrees were held by those with greater than 10 years of the contracting career field. As the requirement for 24 hours of college business credits has been removed, the USAF needs to continue to monitor the level of business acumen that their AOs have. At least half of the USAF AOs already have a graduate degree. It is unlikely that those AOs will continue their education, meaning that they already have all

of the college business knowledge that they will ever receive. Additionally, there is no guarantee that the contracting workforce will pursue business education in the future, with the removal of 24 hours of college business credits. Without a clear path to improve business knowledge, it is possible that an AO's business acumen may decline over the years.

Considering years of experience, one concern for the contracting workforce is the level of FAR-based training that they have received, compared to the little amount of AO training that is available. With many in the contracting workforce already certified under the old FAR-based certification process, current policy allows them to bypass the new Back-to-Basics requirement. This means that FAR-trained contracting officers will continue to operate under the assumption that their FAR-based training encompasses basic contract management principles and concepts, when it only encompassed FAR-based policy. Additionally, the OT Guide does not provide boundaries for AOs, as it is only a set of guidelines that are optional for AOs. Without a clear training path and a defined set of boundaries, there is a risk that the OTA will not be leveraged properly within the USAF and the DOD.

Considering PCO status, as mentioned in Chapter II, an AO does not have to be a PCO, or even from the contracting workforce. AFMC's 2020 policy only allows unlimited warrant contracting officers to serve as AOs, which may be due to the unique and novel nature of OTAs to AFMC. AFMC may not be leveraging the expertise of non-PCOs that may be qualified and successful as an AO.

Based on the analysis and the implications of the findings previously discussed, I provide the following four recommendations.

D. RECOMMENDATIONS

Based on the implications of the data findings, I identified four recommendations as summarized below.

1. Recommendation #1. Consider Assigning Other Civilian Career Fields as AOs.

2.   Recommendation #2. Consider assigning Military Members as AOs.

3.   Recommendation #3. Provide Foundational Training on Generally Accepted Contract Management Principles and Concepts.

4.   Recommendation #4. Provide Business Management Training.

E.   AREAS FOR FUTURE RESEARCH

While the scope of this research focused on 23 AOs from two bases within the AFMC organization, there are multiple areas of research that can be pursued in the future. One area for further research would be to expand to other bases within the AFMC construct and compare those results to what is found in this research.

Another area for further research would be to attempt this research within other Major Commands (MAJCOMs) within the USAF. The focus here would be to see how consistent the findings are throughout the USAF.

Additionally, this research could be conducted across the DOD, to compare demographics within other services with those found in this research. It would be interesting to see if there is a pattern or consistency in the demographics of AOs across the DOD.

Furthermore, this research can be conducted with different demographics, including DAWIA certification level, analyzing all previous career fields (if applicable), and personality type, and may produce interesting results. It would be interesting to see how these other demographics compare across MAJCOMs, the USAF, and the DOD. Finally, additional research can be conducted with the AOs on how well they feel that they are trained, and if they feel competent in their role as an AO.

For areas that require further investigation, as the number of OTAs increase in the contracting workforce, the DOD could research allowing limited AO warrant status to those individuals that do not hold an unlimited warrant, whether they are or are not part of the contracting workforce. Finally, research could be done on the demographics (e.g., career field, education, experience) that are best suited for an AO, and whether the non-contracting workforce could fulfill AO duties.

65

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