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A CMS-Based Competency Assessment of the DoD Contracting Workforce

February 23, 2022

Dr. Rene G. Rendon, Associate Professor

Acquisition Research Program

Naval Postgraduate School

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Abstract

In April 2020, the DoD senior procurement executives established a new contracting competency model and a single-level of certification program for the DoD contracting workforce. The new competency model is based on the National Contract Management Association (NCMA) Contract Management Standard (CMS). This new DoD contracting competency model complies with the requirement in Section 861 of the fiscal year 2020 National Defense Authorization Act (NDAA) to base a professional certification on standards developed by a third-party accredited program. The purpose of this research is to conduct a competency assessment on a sample of the DoD contracting workforce using the NCMA CMS. This research will answer the following question: Based on the competency assessment results, in which contract management competencies is the workforce less proficient and less knowledgeable? Based on the competency assessment results, recommendations for competency development are provided to the assessed organization.



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Disclaimer: The views represented in this report are those of the authors and do not reflect the official policy position of the Navy, the Department of Defense, or the federal government.



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Introduction

Both the Government Accountability Office (GAO) and the Department of Defense Inspector General (DoD IG) continue to list DoD contract management as a high risk and a top DoD management challenge (GAO, 2021; DoD OIG, 2021). Both agencies identify the need for increased technical competency in the contracting workforce.

Recent legislative initiatives reflect Congress's concerns about the adequacy of the DoD's acquisition workforce training and competency. In the 2020 National Defense Authorization Act (NDAA; 2019), Congress directed the secretary of defense to implement a professional certification program for all members of the acquisition workforce that is based on standards developed by a third-party accredited program based on nationally or internationally recognized standards (NDAA, 2019). In September 2020, the under secretary of defense for acquisition and sustainment (USD A&S) implemented the Back-to-Basics (BtB) talent management program to be fully deployed by October 1, 2021 (OUSD(A&S), 2020). This would be a major change to the acquisition certification program established by the Defense Acquisition Workforce Improvement Act (DAWIA) and enacted by Congress in 1990. In February 2021, the office of the under secretary of defense (OUSD) principal director for defense pricing and contracting (DPC) published a memorandum restructuring the DoD Contracting Professional Certification Program and Contracting Competency Model. The new contracting competency model would be based on the American National Standards Institute (ANSI)/National Contract Management Association (NCMA) accredited Contract Management Standard (CMS; OUSD(A&S), 2021). This new contracting workforce competency model complies with the 2020 NDAA (2019) requirement to base a professional certification on standards developed by a third-party accredited program (OUSD(A&S), 2021).

Purpose of Research

Given the backdrop of the Congressional legislation and the establishment of the new contracting workforce competency model, the purpose of this research is to conduct



a competency assessment on a sample of the DoD contracting workforce using the newly adopted NCMA CMS. This research will answer the following question: Based on the competency assessment results, in which contract management competencies is the workforce less proficient and less knowledgeable? Based on the competency assessment results, recommendations for competency development are provided to the assessed organization.

Methodology

The methodology for this research consists of two components. The first component is the deployment of a CMS-based competency assessment instrument to a DoD contracting organization. (The development of the NCMA CMS competency instrument is discussed in Rendon and Schwartz [2021]). The second component is the analysis of the assessment results to identify contract management competencies that need additional training emphasis.



DoD Contract Management Workforce Competency Model

The new DoD contracting workforce competency model, based on the NCMA CMS, is significantly different from the legacy DoD contracting competency model in both structure and scope, and thus provides an innovative approach for talent and competency management (Rendon, 2019; Rendon & Winn, 2017). The top-level structure of the NCMA CMS is reflected in Figure 1 (NCMA, 2019b).

The CMS's concise and detailed contract life cycle and greater emphasis and granularity in each of the life-cycle phases and job tasks may help develop and fortify the DoD's contracting processes and practices, as well as the training of its contracting workforce on these competencies. Providing greater emphasis on each of the contract life-cycle phases and also structuring the competencies using a hierarchical approach that aligns each competency with processes, tasks, and subtasks will support the development of a professional contracting career path that associates contracting technical competencies and key work experiences (Rendon, 2019). The CMS also has an overarching narrative of guiding principles aligned with professional competencies that apply across all phases of the contracting life cycle. Additionally, the CMS uses contract management terms that are relevant and applicable across the DoD, federal agencies, and industry.

In terms of scope, the CMS differs from the legacy DoD contracting competency model in that the CMS also includes the industry (seller) competencies, processes, and job tasks. Expanding the DoD's contracting workforce knowledge to include industry's side of contracting (e.g., industry operations and processes) as reflected in the CMS will 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. Including the industry side of contracting would also result in strengthening systems thinking within the DoD contracting workforce (Carlson, 2017). Contracting officers applying systems thinking to contract management will know that "problems can have hidden, indirect causes" and it is the "relationships among the parts that matter the



most” (Carlson, 2017, p.). Using systems thinking, contracting officers will be able to “see the gaps where complications or opportunities can arise” within the acquisition process and understand how their contracting decisions may impact contractors and subcontractors (Carlson, 2017, p.).

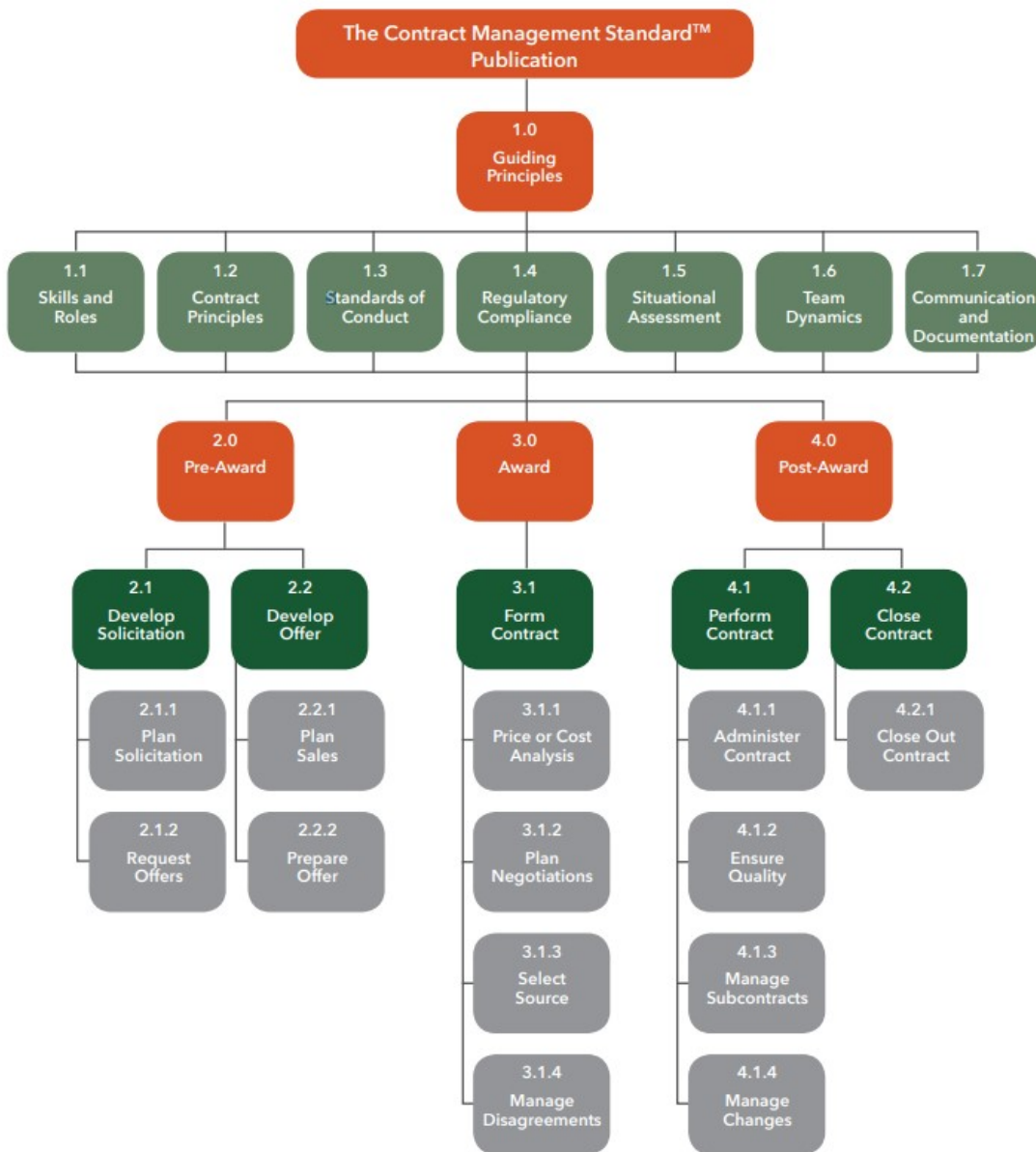


Figure 1. NCMA Contract Management Standard. Source: NCMA (2019b).

Additionally, adopting the CMS competency framework may provide the DoD contracting workforce with a stronger foundational understanding of not only the complete contract life cycle, but also the different perspectives in contract relationships (e.g., buyer, seller, subcontractor, supplier, end users, etc.). This understanding of different perspectives may enable DoD contracting officers to introduce innovation and process change into the DoD contracting processes.

Finally, providing training on the seller-side competencies to the DoD contracting workforce may also strengthen “communication, collaboration, problem-solving, and adaptability” skills (Carlson, 2017). A recent RAND study found that within the defense acquisition workforce, knowledge gaps in business acumen, industry operations, and industry motivation exist (Werber et al., 2019). The RAND report also found that the lack of standardized definitions and competency model formats obscures the need for knowledge related to business acumen, industry operations, and industry motivation (Werber et al., 2019) .

Structure of Competency Assessment Instrument

The structure of the contracting competency assessment instrument consists of contracting competency statements for each of the contract management phases (pre-award, award, post-award), as well as from both buyer and seller contracting perspectives. More specifically, the contracting competency statements reflect the contracting competencies and the specific job tasks for each contract management phase and for each perspective as reflected in the CMS. The competency statements will be rated by the contracting workforce members using a Likert scale reflecting different levels of proficiency for performing the buyer job tasks and a different Likert scale reflecting the different levels of knowledge of the seller job tasks. The proficiency rating levels for performing buyer job tasks are identified and defined as follows:

1. **Aware:** Applies the competency in the simplest situations and requires close and extensive guidance.
2. **Basic:** Applies the competency in somewhat difficult situations and requires frequent guidance.
3. **Intermediate:** Applies the competency in difficult situations and requires little or no guidance.



4. Advanced: Applies the competency in considerably difficult situations and generally requires no guidance.
5. Expert: Applies the competency in exceptionally difficult situations, serves as a key resource, and advises others.
6. N/A: Not applicable/not needed in my job.

The knowledge rating levels for understanding seller job tasks are identified and defined as follows:

1. None: I am not aware of this Contractor competency.
2. Aware: I am aware but have no knowledge of this Contractor competency.
3. Basic: I have some basic-level knowledge of this Contractor competency.
4. Intermediate: I have intermediate-level knowledge of this Contractor competency.
5. Advanced: I have advanced-level knowledge of this Contractor competency.

Deployment of Competency Assessment Instrument

The competency assessment instrument link was deployed to the Marine Corps expeditionary contracting workforce that makes up the three Marine Corps Expeditionary Contracting Platoons (ECPs) and the three co-located Regional Contracting Offices (RCOs). Marine Corps ECP contracting officers and specialists attach to a deploying unit to provide contracting support to the deploying unit commander. Marine Corps RCOs provide contracting support when tasked to Marine Corps contingency contracting operations.

The competency assessment instrument was deployed using the Naval Postgraduate School (NPS) open-source survey tool LimeSurvey. The web-based LimeSurvey allows participants to respond anonymously to the self-assessment items. The Marine Corps expeditionary contracting workforce (ECPs and RCOs) population consists of 100 contracting professionals.

Findings

Of the 100 Marine Corps expeditionary contracting workforce military contracting professionals, between 33 and 41 contracting professionals completed the assessment,



equating to approximately 33–41% of the expeditionary contracting workforce. Forty-one contracting professionals responded to the survey and initiated and progressed through the assessment. Thirty-three contracting professionals completed the entire assessment. The demographic data of the responding population are reflected in Table 1. As can be seen in Table 1, almost half of the respondents either had no DAWIA certification or were certified at Level 1, with the remaining respondents certified at DAWIA Level 2 or Level 3. Additionally, the majority of the respondents (83%) had between 0 and 8 years of contracting experience.

Table 1. Expeditionary Contracting Workforce Competency Assessment Demographics

DAWIA Contracting Certification Level	Number		Years of Contracting Experience	Number
None	8		3 or Less	15
Level 1	11		4 to 8	19
Level 2	16		9 to 13	5
Level 3	6		14 to 18	2
			19 or more	0

Buyer Proficiency Levels

Figure 2 reflects the assessment results of the Buyer Proficiency component of the competency assessment. The figure reflects the buyer competencies (e.g., Plan Solicitation, Request Offer, etc.) that include buyer associated job tasks, as reflected in the NCMA CMS. Also reflected in Figure 2 are the average proficiency ratings for each competency, based on the buyer proficiency rating scales discussed earlier. As can be seen in Figure 2, the average buyer proficiency ratings ranged within Basic (2.0) and Intermediate (3.0) proficiency levels. Specifically, the lowest average proficiency rating was 2.09 (Basic) for Manage Disagreement, and the highest average proficiency rating was 3.47 (Intermediate) for Request Offer.



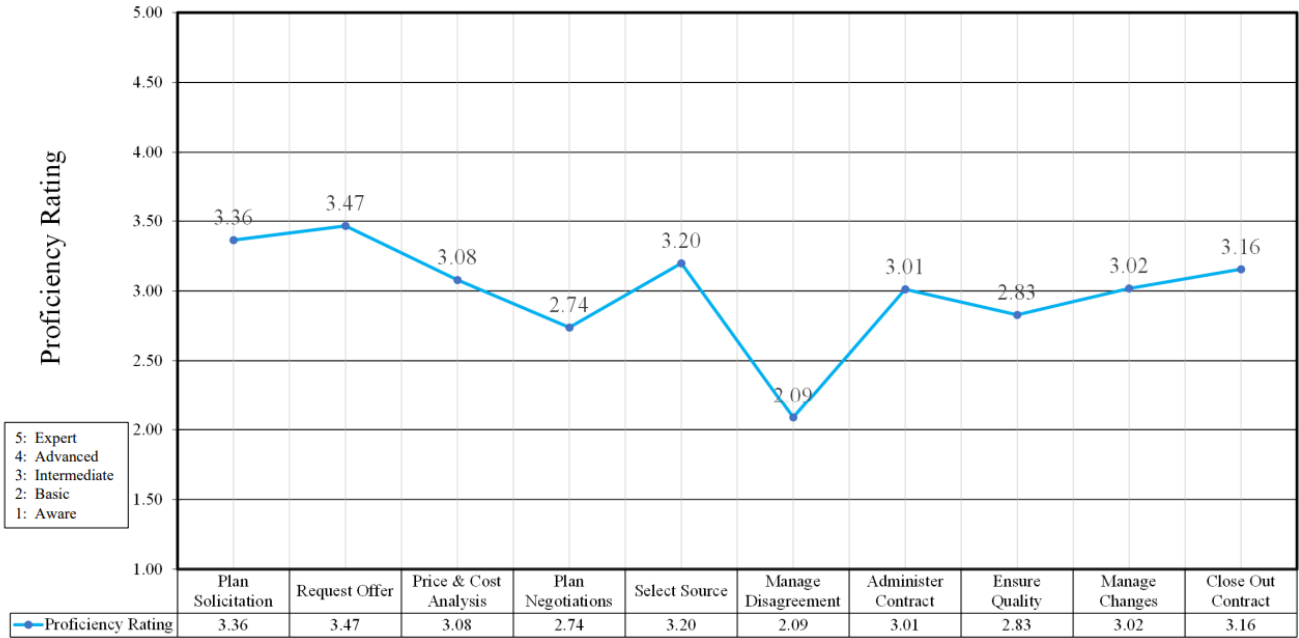


Figure 2. Expeditionary Contracting Workforce Competency Assessment: Buyer Proficiency

Seller Knowledge Levels

Figure 3 reflects the assessment results of the Seller Knowledge component of the competency assessment. The figure reflects the seller competencies (e.g., Plan Sales, Prepare Offer, etc.) that include seller associated job tasks, as reflected in the NCMA CMS. Also reflected in Figure 3 are the average knowledge ratings for each competency, based on the seller knowledge rating scales discussed earlier. As can be seen in Figure 3, the average seller knowledge ratings ranged predominantly within the Aware (2.0) knowledge level. Specifically, the lowest average knowledge rating was 2.35 (Aware) for Manage Disagreement, and the highest average knowledge rating was 3.04 (Basic) for Plan Negotiations.



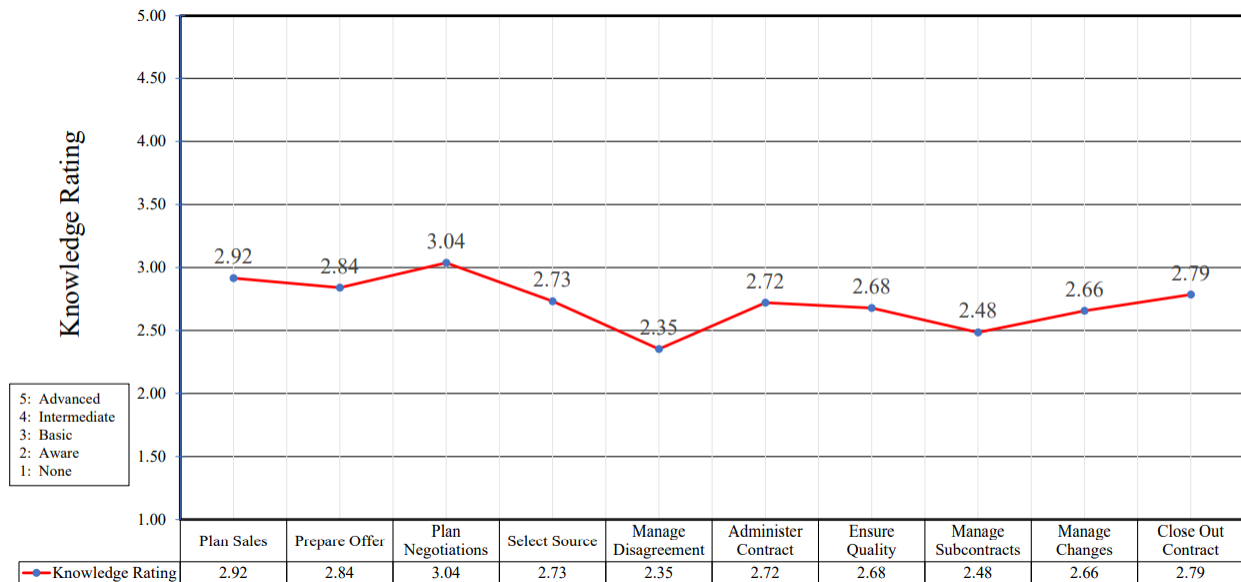


Figure 3. Expeditionary Contracting Workforce Competency Assessment: Seller Knowledge

Discussion of Findings

The overall findings from the Marine Corps expeditionary contracting workforce (ECPs and RCOs) competency assessment indicate that the organization’s competency levels for the buyer proficiency tasks are higher than the organization’s knowledge levels of seller tasks. Specifically, based on the competency assessment, the majority of the buyer proficiency competency ratings are at an Intermediate level, with seven out of 10 competencies rated within this range. The remaining three competencies received ratings of Basic. Additionally, when these competency ratings are analyzed by contract life-cycle phases, buyer proficiency ratings in the pre-award phase are the highest, and buyer proficiency ratings in the award phase are the lowest of the three life-cycle phases. The assessment revealed that the survey respondents demonstrated an average proficiency rating of Intermediate (3.30) in pre-award buyer competencies (Plan Solicitation, Request Offer), an average proficiency rating of Basic (2.67) in award buyer competencies (Price & Cost Analysis, Plan Negotiations, Select Source, Manage Disagreement), and an average proficiency rating of Intermediate (3.00) in post-award buyer competencies (Administer Contract, Ensure Quality, Manage Changes, Close Out Contract). The lowest-rated competency was Manage Disagreements, found in in the



Award phase, which was closely followed by the competency of Plan Negotiations, also in the Award phase.

Based on the competency assessment, seller knowledge competency ratings are predominantly at the Aware level, with nine out of 10 competencies rated at this level. The remaining competency is rated just above the Basic level. When these competency ratings are analyzed by contract life-cycle phases, the pre-award, award, and post-award phases all rate at an Aware level. The assessment revealed that the survey respondents demonstrated an average knowledge rating of Aware (2.88) in pre-award seller competencies (Plan Sales, Prepare Offer), an average knowledge rating of Aware (2.70) in award seller competencies (Plan Negotiations, Select Source, Manage Disagreements), and an average knowledge rating of Aware (2.66) in post-award seller competencies (Administer Contract, Ensure Quality, Manage Subcontracts, Manage Changes, Close Out Contract). The lowest-rated competency was Manage Disagreements, found in the Award phase, which was closely followed by the competency of Manage Subcontracts, in the Post-Award phase.

The Intermediate and Basic average proficiency ratings for the Buyer tasks may be related to the background of the surveyed workforce. Almost half of the respondents had either no DAWIA certification or were certified at Level 1, with the remaining respondents certified at DAWIA Level 2 or Level 3. Additionally, the majority of the respondents (83%) had between 0 and 8 years of contracting experience. This level of training and experience may indicate a lower competency level in performing the buyer tasks reflected in the CMS.

The higher average proficiency ratings for the buyer tasks (Intermediate and Basic) compared to the lower average knowledge ratings of the seller tasks (Aware) may reflect the scope and focus of the contracts training received by the DoD acquisition workforce. The contracts training provided by the Defense Acquisition University (DAU) and based on the previous DoD contracting competency framework reflects only the buyer processes and related tasks, as reflected in the Federal Acquisition Regulation (FAR). The DAU contracts training courses do not cover the seller (industry) processes and related tasks. (See Rendon and Winn [2017] for a



comparison of the previous DoD contracting competency model and the NCMA Contract Management Standard).

Finally, the consistency in the lower average proficiency and knowledge ratings for both the buyer and seller Manage Disagreements competency is indeed an interesting finding. This CMS competency specifically deals with the seller tasks of submitting protests and appeals and the buyer tasks of responding to protests and appeals. The low average proficiency and knowledge ratings from the assessed contracting workforce in this competency area may reflect a deficiency in the knowledge, skills, and abilities related to these contract management tasks.

Based on these competency assessment findings, this researcher provides recommendations to the assessed organization for competency development. These recommendations can be used by the organization for developing a training roadmap for targeting buyer task proficiency and seller knowledge areas needed for improvement within the contracting workforce.

Recommendations for Competency Development

Based on the findings of the Marine Corps expeditionary contracting workforce (ECPs and RCOs) competency assessment, the following recommendations for competency development are provided for the organization.

The first recommendation for the assessed organizations is to incorporate training to increase knowledge of the CMS seller competencies and related job tasks (NCMA, 2019b). The assessment results reflect that the average knowledge ratings of the seller competencies and related job tasks are lower than the average proficiency ratings of the buyer tasks. Specifically, the knowledge levels of the seller tasks are predominantly rated at the Aware level. This means that, in terms of knowledge of the seller competencies and job tasks, this contracting workforce is aware but has no knowledge of this contractor competency or related job tasks. Thus, the recommendation is contracting workforce training for this organization to incorporate knowledge of seller competencies and job tasks from the CMS for all the contract life-cycle competencies (NCMA, 2019a). Development of this training module could start by



incorporating information from Contract Management Body of Knowledge (CMBOK) sections 4.0, 5.0, and 6.0 (NCMA, 2019a).

The second recommendation for the assessed organization is to emphasize its training on the CMS buyer competencies and related job tasks (NCMA, 2019b). The assessment results reflect that the average proficiency ratings of the buyer tasks are predominantly at the Intermediate level, indicating that the workforce can apply the competencies in difficult situations and requires little or no guidance. The job tasks that were rated at the Basic level indicate that the workforce can apply the competency in somewhat difficult situations and requires frequent guidance. Thus, the recommendation is for this training to emphasize buyer competencies and job tasks from the CMS for all of the contract life-cycle competencies (NCMA, 2019a).

The third recommendation for the assessed organizations is to develop and/or improve the contracting workforce training on the competency of Manage Disagreements. The assessment results reflect that the Manage Disagreements competency and related job tasks within the Award phase had the lowest scores for both buyer task proficiency and seller task knowledge. Development of this training module could start by incorporating information from section 5.4 of the CMBOK, Manage Disagreements (NCMA, 2019a). Additional information from the CMBOK could also be incorporated to improve skills such as critical thinking, problem solving, and decision-making related to managing contract disagreements, as well as resolving protests and appeals. Specifically, the CMBOK covers information on these skill sets within the Leadership, Management, and Guiding Principles Competencies (NCMA, 2019a).

Areas for Further Research

The primary area for further research is to conduct a follow-on competency assessment of the Marine Corps expeditionary contracting workforce (ECPs and RCOs) after the contracting workforce has received the recommended training based on the initial assessment. This follow-on assessment would measure any increased learning, in terms of buyer proficiency and seller knowledge of both the buyer and seller competencies as reflected in the CMS.



A second area for further research is to conduct workforce competency assessments on additional contracting organizations throughout the DoD. This would enable benchmarking workforce competency assessment data from DoD activities with diverse contracting mission sets. For example, the organization assessed for this research, the Marine Corps expeditionary contracting workforce (ECPs and RCOs), has a primary mission focused on expeditionary contracting. Conducting workforce competency assessments on organizations whose missions include other contracting responsibilities, such as major systems acquisition, construction, or base support contracting, would likely show assessment results with different levels of proficiency of buyer tasks and knowledge of seller tasks and produce different targeted recommendations.



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Conclusion

The GAO and the DoD IG both continue to identify contract management as a high risk and a top management challenge for the DoD (GAO, 2021; DoD IG, 2021). The 2020 NDAA (2019) resulted in congressional direction to the secretary of defense to implement a professional certification program for all members of the acquisition workforce based on standards developed by a third-party accredited program that is based on nationally or internationally recognized standards (NDAA, 2019). In April 2020, the DoD senior procurement executives established a new contracting competency model and a single level of certification program. The new competency model is based on the NCMA CMS, which is accredited by the American National Standards Institute (ANSI). The purpose of this research was to conduct a competency assessment on a sample of the DoD contracting workforce using the NCMA CMS. Based on the competency assessment results, recommendations for competency development were provided to the assessed organization. This specific research reflects the competency assessment of the Marine Corps expeditionary contracting workforce (ECPs and RCOs). Based on the assessment results, the organizations can develop a training roadmap for targeting competencies and knowledge areas needed for improvement within the contracting workforce. This research should be expanded by conducting competency assessments on other DoD contracting organizations as a way of benchmarking the DoD contracting workforce competencies against the newly adopted NCMA CMS.



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References

- Carlson, S. (2017). A new liberal art: How systems thinking prepares students for a complex world. *The Chronicle of Higher Education*, 64(5). Retrieved from <https://www.chronicle.com/article/a-new-liberal-art/>.
- Department of Defense Office of Inspector General. (2021, October 15). *Fiscal year 2022: Top DoD management challenges*. Department of Defense.
- Government Accountability Office. (2021, March). *High-risk series: Dedicated leadership needed to address limited progress in most high-risk areas* (GAO-21-119SP). Retrieved from <https://www.gao.gov/products/gao-21-119sp>
- National Contract Management Association. (2019a). *Contract management body of knowledge* (6th ed.). Ashburn, VA: NCMA.
- National Contract Management Association. (2019b). *Contract management standard* (2nd ed.). Retrieved from <https://www.ncmahq.org/Web/Standards---Practices/Contract-Management-Standard-Publication.aspx>
- National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116–92, 133 Stat. 1198 (2019). Retrieved from <https://www.govinfo.gov/content/pkg/PLAW-116publ92/html/PLAW-116publ92.htm>
- Office of the Under Secretary of Defense for Acquisition and Sustainment. (2020, September 2). “Back-to-basics” for the defense acquisition workforce [Memorandum]. [https://4edacm.dau.edu/assets/Back to Basics Memo 2 Sep 2020.pdf](https://4edacm.dau.edu/assets/Back%20to%20Basics%20Memo%202%20Sep%202020.pdf)
- Office of the Under Secretary of Defense for Acquisition and Sustainment. (2021, February 17). Restructuring of the certification program for the contracting functional area [Memorandum]. <https://dair.nps.edu/handle/123456789/4487>
- Rendon, R. G. (2019). Enhancing professional and technical excellence: Analysis of contract management competency models (SYM-AM-19-036). *Proceedings of the Sixteenth Annual Acquisition Research Symposium*, 86–112. <https://calhoun.nps.edu/handle/10945/63019>
- Rendon, R. G., & Schwartz, B. (2021). *An innovative approach to assessing DOD contracting workforce competency* (NPS-CM-21-036). Acquisition Research Program. <https://dair.nps.edu/handle/123456789/4487>
- Rendon, R. G., & Winn, T. (2017). Competency in contract management: A comparison of DoD and CMBOK competency models. *Contract Management*, 57(12), 66–81.



Werber, L., Ausink, J., Daugherty, L., Phillips, B., Knutson, F., & Haberman, R. (2019). *An assessment of gaps in business acumen and knowledge of industry within the defense acquisition workforce: A report prepared for the U.S. Department of Defense in compliance with Section 843(c) of the Fiscal Year 2018 National Defense Authorization Act (RR-2825-OSD)*. RAND.





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