

# Defense Contract Management Agency (DCMA) Contracting Workforce Competency Assessment Report

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# Executive Summary

The Defense Contract Management Agency (DCMA) leadership asked CNA to develop a competency model for its contracting workforce. DCMA contracting employees were part of an earlier competency assessment conducted for the Office of the Secretary of Defense in 2007 and 2008 of all AT&L contracting employees. In the spring of 2010, DCMA invited close to 1900 contracting employees and their supervisors to take the competency assessment developed by DCMA contracting leadership and CNA in the previous year. The model is provided in Appendix A. Roughly 1500 employees participated. More than 80 percent of respondents were Journey-level professionals. About 60 percent of respondents identified themselves as Contract Administrators.

The assessment results show that there is a high degree of agreement in the DCMA contracting workforce about the competencies needed to successfully meet mission goals. Of the 11 competencies in the model, DCMA employees who responded to the assessment categorized four as important. There was also a high degree of consistency between how employees and their supervisors rated the competencies. Results also show that, for the most part, the competencies considered to be important also had the highest average proficiency ratings.

The same competencies that are important for the entire workforce are also considered important by two of the main job titles surveyed –Contract Administrator and Contract Specialists. However, Contract Price/Cost Analysis found none of these four competencies to be important, instead finding five others to be important. These results suggest that Contract Price/Cost Analyst work is qualitatively different than that of the Contract Administrators and Contract Specialists. The model as a whole seems to fit Contract Specialists and Contract Administrators best.

Another finding from the data is that all career levels consider the E-Business and Automated Tools competency to have high frequency and low criticality. In addition, Advanced Cost and/or Price Analysis, Contract Performance Management, and Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards become important at the Senior-level of work.

Senior-level employees have a proficiency gap in three competencies they indicated were important including Advanced Cost and/or Price Analysis, Contract Performance Management, and Negotiate Forward Pricing Rate Agreements and Administer Cost Account Standards. 73 percent of DCMA contracting employees indicated that they could retire in the next 14 years and 25 percent of this group could retire by 2013. It will be critical for DCMA leadership to prepare the Entry and Journey-level employees to fill this possible gap. Improving their proficiency in the competencies considered important by the Senior level, veteran employees will be essential for mission success.

Finally, we linked DCMA's organizational performance indicators to the competencies. These measures of the collective performance of DCMA can be used to examine in what way proficiency at important competencies is related to overall organizational performance.

# Section 1: Background and Model Overview

Personnel challenges facing the Acquisition, Technology & Logistics (AT&L) community must be addressed in order for the Department of Defense (DoD) to perform its mission. As part of the AT&L workforce, the Defense Contract Management Agency (DCMA) contracting community, the subject of this report, is responsible for ensuring that federal acquisition programs, supplies, and services are delivered on time, within cost, and meet performance requirements in support of US war fighters and our allies. Rapid changes in the acquisition environment, retirement eligibility of baby boomers, and potential talent shortages threaten the strength and stability of AT&L to meet its mission goals. Acquisition personnel are a key focus of government wide initiatives to enhance recruiting, training, and retention<sup>\*</sup>. This report presents the most recent assessment of the competencies of DCMA's contracting workforce.

The Office of Personnel Management (OPM) describes a competency as “an observable, measurable pattern of skills, knowledge, abilities, behaviors and other characteristics that an individual needs to perform work roles or occupational functions successfully.” OPM's definition of a competency is the foundation on which AT&L workforce competency models are built. The DCMA contracting competency model and workforce assessment provided here align with the AT&L Human Capital Strategic Plan and is one element of an approach by the Human Capital Initiatives (HCI) Office to prepare the AT&L workforce for the future.<sup>†</sup>

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<sup>\*</sup> Department of Defense, Acquisition, Technology & Logistics, *AT&L Human Capital Strategic Plan v3.0*, 2007.

<sup>†</sup> Ken Krieg, Under Secretary of Defense for Acquisition, Technology & Logistics, *AT&L Human Capital Strategic Plan v3.0*, 2007.

The DCMA contracting community was part of a larger competency assessment conducted in 2007. DCMA leadership wanted a closer examination of their contracting workforce employees and worked with CNA analysts to develop a competency model specific to DCMA contracting employees in pricing and contract administration roles.

## Model components

AT&L competency models have both a technical and a professional component. Technical competencies are functional-specific competencies associated with a career field. Professional competencies are leadership, relational, cognitive, and management-focused and can be applied to all career fields. Competency models contain high-level units of competence which hold more descriptive competencies with concise descriptions of behaviors and the associated goal of the behavior needed to demonstrate the competency (referred to as competency elements). In addition, competencies often include short statements about the knowledge required to perform the behaviors (referred to as knowledge items).

## Model development

The DCMA competency model was developed and validated in four phases. In **Phase I**, the competency assessment model development, career field leadership served as an expert panel (EP). They identified the behaviors, skills, characteristics, and knowledge they believe are required to be a successful DCMA contracting employee. Through successive discussions between DCMA contracting leadership and CNA, this information was developed into a competency model framework, which was used to solicit more detailed competency information from subject matter experts.

At the end of Phase I, expert panel members identified successful contracting employees from throughout DCMA to serve as subject matter experts (SMEs) to support development of a model from the framework. Criteria to serve as an SME ensured that participants represented the DCMA contracting workforce population and that they were experienced, superior employees. This ensured that the

final competency model would accurately reflect successful performance criteria.

In **Phase II**, SMEs were asked to provide data about what makes them successful on the job. The CNA research team devised a multi-faceted approach to collecting the data. Use of CNA’s online data collection tool facilitated collection of demographic information, framework validation, and descriptions of key situations. DCMA contracting SMEs were first asked to provide demographic information. SMEs were asked to add or suggest removal of competencies, elements, and knowledge items. Finally, a structured set of questions asked SMEs to compare their job responsibilities with the framework of competencies and provide examples from their own experiences of successful job performance. This process allowed CNA to collect both qualitative and quantitative data needed to validate competencies required for superior performance.

In **Phase III**, CNA worked with DCMA contracting leadership and workforce experts to decide how to use the information provided by the SMEs. The resulting competency model is the model that was used to assess the workforce (Table 1). CNA built a Web tool using the revised competency model.

The DCMA competency model bundled 32 elements into 11 competencies under six units of competence. The final DCMA contracting competency model is shown below in Table 1. This model provided the competency data that the DCMA contracting workforce was assessed to in Phase IV.

Table 1. DCMA Contracting Competency Model

Units of Competence	Competencies	DCMA Final Elements
Pre-Award and Award	Contract Award	1. Award contract. Issue task or delivery orders after ensuring fund availability and obtaining reviews and approvals.
Develop and/or Negotiate Positions	Terms and Conditions	2. Determine terms and conditions, including special contract requirements applicable to the acquisition, that are appropriate for the acquisition to comply with laws and regulations (e.g., method of financing, Government property, intellectual property, organizational conflict of interest (OCI), specialty metals).
	Preparation and Negotiation	3. Prepare for negotiations, discussions, awards by reviewing audit and technical reports, performing cost and/or price analysis (or reviewing price analysts reports), and developing pre-negotiation position to include identifying potential trade-offs.

		4. Negotiate terms and conditions (including price) based on the pre-negotiation objective and give-and-take with the offeror to establish a fair and reasonable price.
		5. Issue work requests for maintenance, overhaul, modification, and repair to ensure work is required, not covered under the basic contract line item(s), and necessary to satisfactorily complete the contract.
		6. Definitize undefinitized contract actions in a timely fashion to comply with the acquisition regulation and ensure fair and reasonable prices.
Advanced Cost and/or Price Analysis	Advanced Cost and/or Price Analysis	7. Evaluate the reasonableness of the contractor's proposed cost/price for use in preparing for complex negotiations.
		8. Evaluate the accuracy, completeness, and currency of cost or pricing data to determine whether the contractor submitted defective cost or pricing data.
		9. Develop positions on complex pricing-related contract terms and conditions to aid in developing the Government's position.
		10. Support special cost, price, and finance efforts by researching, analyzing and providing recommended positions that are in the best interests of the Government.
		11. Evaluate Award Fee/Incentive Fee Plans and arrangements, for adherence to policy and guidance.
Contract Administration	Initiation of Work	12. Conduct post-award orientations to address customer concerns and contractor's responsibilities for performance on the contract.
		13. Plan for contract administration regarding delegating administrative functions and formally establishing all contract administration responsibilities.
	Contract Performance Management	14. Administer contract by monitoring quality assurance representatives (QARs) feedback, DCAA audits, contractor performance, and enforcing contractor compliance with contract requirements.
		15. Oversee contractor business systems to reduce risks to the Government and ensure compliance with contractual requirements.
		16. Negotiate final indirect cost rates to establish the rates to be used to close flexibly-priced contracts.
		17. Ensure past performance evaluation is initiated to ensure documentation of performance including contracting officer input.
		18. Analyze, negotiate, and prepare claims file in order to issue final decisions.
		19. Identify and collect contract debts to recover monies owed to the Government.

		20. Resolve contract performance problems by gathering facts, determining remedies, and initiating remedial actions in order to find and provide a solution.
	Issue Changes and Modifications	21. Analyze the need for contract modifications and negotiate and issue contract modifications, as required.
	Approve Payment Requests	22. Approve contractor request for payments to include final vouchers under cost reimbursement contracts, progress payments, performance-based payments, or commercial financing.
	Close-Out Contracts	23. Close-out contracts following proper procedure to ensure property disposition, final payments, and documents/clearances have been received.
Negotiate Forward Pricing Rates Agreements & Administer Cost Accounting Standards	Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	24. Negotiate Forward Pricing Rate Agreements (FPRAs) and Forward Pricing Rate Recommendations (FRRs) to establish the basis for pricing and negotiating contract actions.
		25. Plan for Cost Accounting Standards (CAS) Administration to establish appropriate surveillance.
		26. Determine whether CAS Disclosure Statement is adequate and in compliance with CAS to ensure compliance with Public Law 100-679.
		27. Determine whether contractor accounting changes (required, unilateral, or desired) may require cost impact statement to adjust contract costs or prices.
		28. Process CAS noncompliances to determine whether cost impact statement is needed to adjust contract costs or prices.
		29. Determine cost impact for accounting changes and CAS noncompliance to determine whether to adjust contract costs or prices.
		30. Negotiate and resolve cost impacts.
		31. Negotiate advance agreements covering the reasonableness, allocability, allowability of costs to avoid possible subsequent disallowance or dispute of the costs under the cost principles.
General competencies	E-Business and Automated Tools	32. Use e-business systems and automated tools to promote standardization, efficiency, and transparency.

**Phase IV** of the DCMA contracting competency assessment process began in the spring of 2010. At that time CNA administered the assessment to nearly 2000 DCMA contracting employees in pricing, contract administration, and management assistant roles. Employees had almost six weeks to complete the assessment before it was closed on June 18, 2010. The resulting data is described in this report through analysis of employee proficiency on the most important competencies.

## Participation rate

DCMA invited nearly 2,000 employees to take the competency assessment in late spring 2010. The initial invitation was sent by DAU and follow-up emails were sent by DCMA and CNA.

Overall, roughly 80 percent of the DCMA contracting workforce contributed in some way to the assessment. Approximately 96 percent of the assessment respondents held contracting job series positions. Slightly more than three-fourths, 76 percent, of DCMA employees in the contracting job series completed self-assessments and 69 percent of 325 supervisors completed assessments for all their employees.

Supervisors assessed 1,459 employees, not all of whom participated in the survey since a total of 1,446 employees assessed themselves (Table 2).

Table 2. Overall Participation Rates

Final Assessment Status	Self-Assessments		Supervisor Assessments	
	Number	Percentage	Number	Percentage
Invited	1,907	100	325	100
Completed	1,446	76	224	69
Started But Not Completed	81	4	34	10
Never Started	380	20	67	21

## Demographics

Employees were dispersed among 47 primary DCMA Contract Management Offices (CMOs) across the world. No location dominated the overall results. The top six Primary Contract Management Offices collectively have slightly more than 46 percent of all participants (Table 3).

Table 3. Locations with Largest Numbers of Completed Assessments

Primary CMO	Completed
DCMA Santa Ana, CA	128
DCMA Dallas, TX	119
DCMA Hartford, CT	116
DCMA Lathrop, CA	110
DCMA Baltimore, MD	100
DCMA Manassas, VA	97

The vast majority of respondents were civilian. Only 2 percent (22 of the 1,446) of employees who completed their assessments identified themselves as military.

Approximately 84 percent of respondents were Journey-level professionals (GS-11 to GS-13). Table 4 provides additional detail. Career Levels were extrapolated from General Schedule (GS) Level responses according to the following criteria:

- GS5 to GS10 – Entry-level
- GS11 to GS13 – Journey-level
- GS14 and GS15 – Senior-level
- All others (military) became Other

Table 4. Civilian Participation by GS-Level

Level	Completed
GS-5 (Entry)	14
GS-7 (Entry)	68
GS-9 (Entry)	104
GS-11 (Journey)	393
GS-12 (Journey)	542
GS-13 (Journey)	256
GS-14 (Senior)	46
<b>Grand Total</b>	<b>1,423</b>

\*One civilian left out due to unique GS level (GS15).

As shown in Table 5, of the 1,446\* employees who completed assessments, 878 held the job title of Contract Administrator with the remainder almost equally distributed among Contract Price/Cost Analyst, Contract Specialist, and Other job designations. Of those grouped in the Other category, about half of the respondents (89) identified themselves as Administrative Contract Officers (ACO), another 28 as Supervisors, 17 as Contract Directors, 14 as Divisional Administrative Contracting Officers (DACOs), 11 as Divisional Leads, 7 as Team Leads and the rest with miscellaneous Occupational Categories.

Table 5. Civilian Participation by Job Title

Job Title	Completed
Contract Administrator	878
Contract Price/Cost Analyst	199
Contract Specialist	175
Other	192
<b>Grand Total</b>	<b>1,444</b>

\*Two job titles were left out because they only had one assessment completed each (Negotiator and Procurement Analyst).

## Years of experience

The number of years employees have spent in the federal workforce is highly and positively correlated to the years spent in contracting and in acquisition. On average, DCMA contracting employees have

19 years in the federal workforce, 16 years in acquisition and 14 years in contracting. Entry-level employees have spent 20 percent of their federal tenure, an average of four and a half years, in contracting. Journey-level employees have spent approximately 75 percent of their average federal tenure of 21 years in contracting. Senior-level employees have dedicated almost 90 percent of their average federal tenure of 27.5 years in contracting.

## **Section summary**

Approximately 80 percent of the employees invited to participate provided inputs for the assessment. The majority of respondents were civilian, and most respondents were Journey-level professionals. Employees with the title Contract Administrator constituted the majority of employee respondents. No single primary CMO had more than 10 percent of all respondents.

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## Section 2: Rating and Analysis Methodology

### Competency ratings

CNA used a multi-rater approach to assess competency model assessment participants. Both the employee and his or her supervisor provided a rating for the employee in the areas of criticality and proficiency. Employees were asked to answer questions about their proficiency in each element of the competency model, and how critical they believed the element to be in performing their current job. Each employee's supervisor was also asked to rate the employee on all of the proficiency and criticality questions. Only employees were asked about how frequently they used the skills, knowledge, and behaviors associated with each element. A behavioral description was provided for each element to assist the participant in selecting the most appropriate rating for each element. The questions and possible responses are below:

**Criticality:** How critical is this activity in your job? (Employee) /  
How critical is this activity in your employee's job? (Supervisor)

1-Not critical

2-Somewhat critical

3-Fairly critical

4-Very critical

5-Extremely critical

NA – Not Applicable/Not needed in my job (Employee version)

NAA – Not Able To Assess (Supervisor version)

**Proficiency:** Rate how proficient you are at the competency element behaviors. (Employee) /  
How proficient is your employee in the activities detailed in this element? (Supervisor)

0-No Awareness

1-Awareness

2-Basic

3-Intermediate

4-Advanced

5-Expert  
NAA – Not Able to Assess (Supervisor version)

**Frequency:** How often do you do this activity in your job?  
(Employee only)

1-Almost Never  
2-Rarely  
3-Occasionally  
4-Frequently  
5-Very frequently  
NA - Not Applicable/Not Needed in My Job

The proficiency and criticality ratings provided by each employee and his or her supervisor were averaged to form composite proficiency and criticality ratings for each element. For example:

$$\frac{\text{Employee self-rating} + \text{Supervisor's rating}}{2} = \text{Composite score}$$

To maximize the number of observations available for analysis, we included observations from partially completed assessments, as long as they had both supervisor and employee inputs for criticality and proficiency and employee frequency ratings. Eighty-one employees submitted partially completed surveys, 31 of which had both employee and supervisor ratings.

Since not all participants provided inputs or, as in some cases, were not able to rate every element, we excluded inputs from our analysis when:

- Either the employee or supervisor did not provide a rating for an element. For example, if a supervisor provided a rating for proficiency and for criticality, while an employee did not choose a rating, we removed the data pair from analysis. Both ratings are required in order to satisfy the multi-rater requirement.
- Either the employee or supervisor selected the Not Applicable or Not Able to Assess rating for an element. For example, if a supervisor provided a rating for proficiency or for criticality of Not Able to Assess, while an employee

provided a rating, we removed the data pair from analysis. Ratings could not be averaged if either the employee or supervisor indicated that he/she is not familiar with the action described in an element or if the supervisor has no insight into the employee's performance relating to a particular element.

Frequency ratings were only requested from employees, which also required us to exclude inputs from our analysis when:

- An employee selected the Not Applicable rating for an element.
- Criticality, proficiency, or frequency ratings were blank for an element.

Consequently, the final dataset will not have any blanks for frequency, proficiency or criticality ratings and will for each given element have the same number of observations for frequency, proficiency and criticality.

## **Differences between Employee and Supervisor Ratings**

Differences between the ratings given by employees and those given by their supervisors for criticality and proficiency provide useful information about gaps between supervisor expectations and employee capabilities. We found that there was a high degree of inter-rater agreement between employees and supervisors. Inter-rater agreement suggests that two observers of behavior tend to rate the competencies similarly and therefore, the assessment questions have good internal consistency.

### **Similarities in criticality ratings**

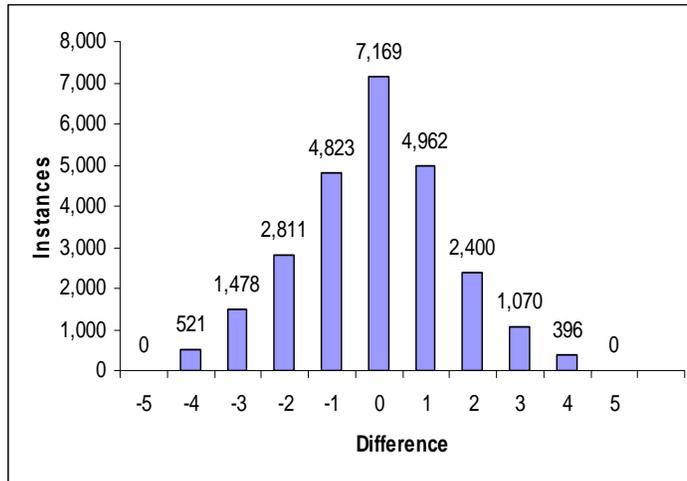
Most of the criticality ratings provided by employees and supervisors for each element<sup>\*</sup> were in close agreement (see Figure 1). Sixty-six percent (7,169) of the criticality responses analyzed for each element were exactly the same for employees and their supervisors

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<sup>\*</sup> Element ratings were the basis for the competency averages, which are the unit of analysis for the findings elsewhere in this report.

or were different by only one rating level (9,785). Twenty percent (5,211) of the responses differed by two rating levels and the remaining 14 percent disagreed by three (2,548) or four (917) rating levels.

Figure 1. Distribution of Criticality Differences (Employee – Supervisor)

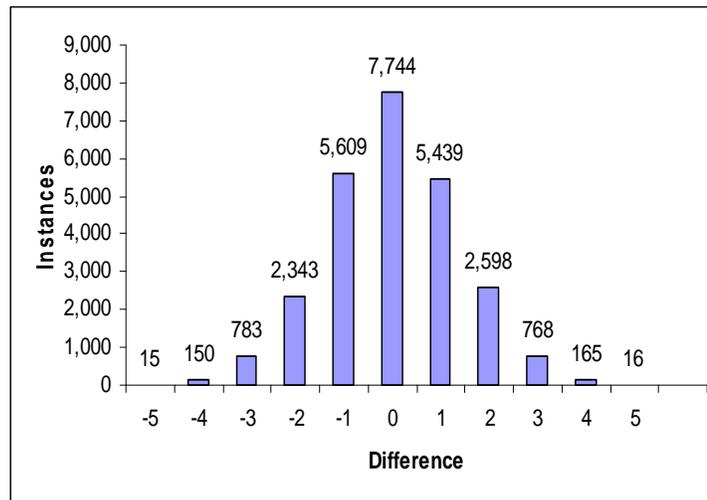


Appendix C shows the average differences in criticality ratings between employees and supervisors, broken out by competency and by career level. As noted earlier, employees and supervisors rank the criticality of competencies similarly. Criticality rankings by employees and supervisors at Entry, Journey and Senior-levels are also highly correlated at .93, .93 and .82, respectively. That is, in all three of the career levels, both the employee and his or her supervisor ranked the criticality of competencies similarly.

### Similarities in proficiency ratings

As shown in Figure 2, the majority of proficiency responses (73 percent) provided by employees and their supervisors were in complete agreement (7,744) with each other and 11,048 differed by one rating level. Nineteen percent (4,941) of the employee/supervisor proficiency responses differed by two rating levels and 6 percent (1,551) differed by three rating levels. Less than 2 percent of proficiency responses differed by four (315) or five (31) rating levels. Neither supervisors nor employees consistently rated employee proficiency higher than the other did.

Figure 2. Distribution of Proficiency Differences (Employee – Supervisor)



Appendix D shows the average differences in proficiency ratings between employees and supervisors, broken out by competency and by career level. Employees and supervisors rank the proficiency of competencies similarly.

## Section summary

This analysis points to the fact that, for the most part, employee and supervisors have inter-rater reliability. This reliability is important because it shows the internal consistency of the competency assessment measures.

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## Section 3: Important Competencies for DCMA

The combination of criticality and frequency ratings provide information about what competencies DCMA employees and supervisors consider most important to the contracting career field. In this analysis, for a competency to be designated important it required both criticality ratings (from the average of employee and supervisor) and employee frequency ratings above a grand average.\* Establishing importance is valuable because it will help the organization prioritize training needs.

Table 6 below categorizes all 11 competencies by their average criticality and frequency ratings. Analyzing frequency by criticality, we can see which competencies are “important” to the DCMA contracting workforce.

Table 6. Frequency-Criticality (Importance)

<b>Frequency</b>	High	<ul style="list-style-type: none"> <li>•E-Business and Automated Tools</li> </ul>	<ul style="list-style-type: none"> <li>•Approve Payment Requests</li> <li>•Close-Out Contracts</li> <li>•Initiation of Work</li> <li>•Issue Changes and Modifications</li> </ul>
	Low	<ul style="list-style-type: none"> <li>•Advanced Cost and/or Price Analysis</li> <li>•Contract Award</li> <li>•Contract Performance Management</li> <li>•Negotiate forward pricing rate agreements &amp; Administer Cost Accounting Standards</li> <li>•Preparation and Negotiation</li> <li>•Terms and Conditions</li> </ul>	
		Low	High

**Criticality**

\* A grand average is one that is calculated by averaging the Composite Score from Employees and Supervisors, across all competencies. For further detail, please see Table 7.

Under the criterion mentioned on the previous page, the four competencies rated as important by the entire DCMA contracting workforce include:

- Approve Payment Requests,
- Close-Out Contracts,
- Initiation of Work, and
- Issue Changes and Modifications.

Important competencies provide DCMA a way to prioritize the areas on which to focus training, mentoring, and employee development efforts when current capabilities do not meet organizational requirements.

The competencies considered important by the workforce align with DCMA leadership attention in the areas of Contract Audit Follow Up and Contract Receipt and Review.\*

## Important competencies by career level

Table 7 indicates the competencies considered important by the entire DCMA contracting workforce (competency names shaded in yellow). These results were largely driven by Journey-level professionals because they made up the majority of the contracting population at DCMA. This analysis makes it possible to compare the Journey-level employees' ratings with others at both early and more senior points in their career. For DCMA workforce capability development, remediation strategies around important competencies should be performed at the career level, rather than on the workforce as a whole. Employee proficiency may increase or decrease in competencies considered important at more senior career levels.

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\* See Memorandum for the DCMA Contracts Directors, August 17, 2009 from Charlie E. Williams, Jr., Director, Defense Contract Management Agency, *Contracting Officer Responsibilities and Accountability*.

Table 7. Frequency-Criticality (Importance) Ratings by Career Levels

Competency	Entry-level	Journey-level	Senior-level
Advanced Cost and/or Price Analysis	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
Approve Payment Requests	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	LOW-HIGH
Close-Out Contracts	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>
Contract Award	LOW-LOW	LOW-LOW	LOW-LOW
Contract Performance Management	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
E-Business and Automated Tools	HIGH-LOW	HIGH-LOW	HIGH-LOW
Initiation of Work	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>
Issue Changes and Modifications	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	LOW-HIGH
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
Preparation and Negotiation	LOW-LOW	LOW-LOW	LOW-LOW
Terms and Conditions	LOW-LOW	LOW-LOW	HIGH-LOW

 **HIGH** frequency-HIGH criticality: *Yellow shaded competency name indicates competencies considered important by the entire workforce, regardless of Career Level. In order to determine what is important across the entire workforce, comparisons were made against a DCMA workforce-wide Grand Average (3.13 for Frequency and 3.36 for Criticality).*

***Bold, Italicized*** text above represents **career-level specific HIGH** frequency and **HIGH** criticality, across competency. In order to determine these characteristics, comparisons were made against career-level specific averages; e.g., Entry (frequency = 2.81; criticality = 3.14), Journey (frequency = 3.20; criticality = 3.39), and Senior (frequency = 2.56; criticality = 3.31).

We found that the same four competencies that were indicated as important by the entire workforce (both high in frequency and criticality) were also important at the Entry and Journey career levels. However, Senior-level employees indicated different important competencies. Advanced Cost and/or Price Analysis, Close-out Contracts, Contract Performance Management, Initiation of Work, and Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards were found to be important. These important competencies for each career field will be used in subsequent analyses of proficiency.

## Important competencies by job title

As reflected in Table 8 below, Contract Administrators and Contract Specialists had the same views about which competencies were important (HIGH-frequency and HIGH criticality). These include Approve Payment Requests, Close-Out Contracts, Initiation of Work, and Issue Changes and Modifications. However, Contract Price/Cost Analysts found none of these to be important. Instead they found Advanced Cost and/or Price Analysis, Contract Performance Management, E-Business and Automated Tools, Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards, and Preparation and Negotiation to be the important competencies.

Table 8. Frequency-Criticality Ratings by Job Title

Competency	Contract Administrator	Contract Specialist	Contract Price/Cost Analyst
Advanced Cost and/or Price Analysis	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
Approve Payment Requests	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	LOW-LOW
Close-Out Contracts	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	LOW-LOW
Contract Award	LOW-LOW	LOW-LOW	LOW-LOW
Contract Performance Management	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
E-Business and Automated Tools	HIGH-LOW	HIGH-LOW	<i>HIGH-HIGH</i>
Initiation of Work	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	LOW-LOW
Issue Changes and Modifications	<i>HIGH-HIGH</i>	<i>HIGH-HIGH</i>	LOW-LOW
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
Preparation and Negotiation	LOW-LOW	LOW-LOW	<i>HIGH-HIGH</i>
Terms and Conditions	LOW-LOW	LOW-LOW	HIGH-LOW

 HIGH frequency-HIGH criticality: *Yellow shaded competency name indicates competencies considered important by the entire workforce, regardless of Job Title. In order to determine what is important across the entire workforce, comparisons were made against a DCMA workforce-wide Grand Average (3.13 for Frequency and 3.36 for Criticality).*

■ HIGH frequency-HIGH criticality: *Blue shaded, bold, and italicized competency name indicates competencies considered important **specific to Job Title**. In order to determine these characteristics, comparisons were made against Job Title specific averages; e.g., Contract Administrator (frequency = 3.17; criticality = 3.37), Contract Price/Cost Analyst (frequency = 2.51; criticality = 2.66), Contract Specialist (frequency = 3.10; criticality = 3.36).*

## Section Summary

Four of the 11 competencies in the model are considered important by the contracting DCMA workforce. These competencies are also considered important by two of the main job titles surveyed – Contract Administrator and Contract Specialists. However Contract Price/Cost Analysis found none of these four competencies to be important, instead finding five others to be important. These results suggest that Contract Price/Cost Analyst work is qualitatively different than that of the Contract Administrators and Contract Specialists.

Another finding from the data is that all career levels consider the E-Business and Automated Tools competency to have high frequency and low criticality. In addition, Advanced Cost and/or Price Analysis, Contract Performance Management, and Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards become important at the Senior level. Work redistribution between the career levels may be one way to improve capability around these tasks.

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## Section 4: Proficiency Ratings

The four competencies considered important (high frequency and high criticality) by the contracting workforce at DCMA were compared against the competencies that they indicated they performed at higher than average proficiency. All four important competencies were also rated as high proficiency. These are:

- Approve Payment Requests,
- Close-Out Contracts,
- Initiation of Work, and
- Issue Changes and Modifications.

We assessed whether there were proficiency gaps by career level and job title.

### Proficiency level by career level

To examine the proficiency level by career level, we compared proficiency for each competency against the average proficiency across competencies at each career level (Entry, Journey, and Senior). The results highlighted in Table 9 are those competencies that were rated as above average proficiency for the career level. The fourth column shows the same analysis across all career levels.

Table 9. Proficiency Averages by Career Level

Competency	Entry-Level	Journey-Level	Senior-level	DCMA Contracting Workforce (All Levels) <sup>†</sup>
Advanced Cost and/or Price Analysis	1.28	2.78	3.65	2.64
Approve Payment Requests	1.89	3.43	4.15	3.26
Close-Out Contracts	2.23	3.58	4.08	3.41
Contract Award	1.40	2.66	3.41	2.52
Contract Performance Management	1.40	2.85	3.76	2.72
E-Business and Automated Tools	1.82	2.83	3.11	2.71
Initiation of Work	1.97	3.34	4.16	3.19
Issue Changes and Modifications	1.99	3.37	4.02	3.20
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	0.87	2.49	3.66	2.37
Preparation and Negotiation	1.50	2.93	3.89	2.79
Terms and Conditions	1.52	2.84	3.73	2.70
Grand Average of All Competencies by Career Level <sup>*</sup>	1.62	3.01	3.78	2.87

**Yellow** shaded competency name indicates competencies considered important by the entire workforce, regardless of Career Level. In order to determine what is important across the entire workforce, comparisons were made against a DCMA workforce-wide Grand Average (3.13 for Frequency and 3.36 for Criticality).

**Green** shading indicates above-average proficiency rating for this career level in this competency.

The competencies considered important by Entry-level professionals (Approve Payment Requests, Close-Out Contracts, Initiation of Work, and Issue Changes and Modifications) are the competencies with the highest average proficiency ratings. In addition, E-Business and Automated Tools had high proficiency ratings at the Entry-level.

Journey-level employees have the highest proficiency ratings in the competencies they consider important (Approve Payment Requests,

<sup>†</sup> These averages are across all competencies, for the entire workforce.

<sup>\*</sup> A grand average is one that is calculated by averaging the Composite Score from Employees and Supervisors, across all competencies for each career field.

Close-Out Contracts, Initiation of Work, and Issue Changes and Modifications).

Senior-level employees considered Advanced Cost and/or Price Analysis, Close-Out Contracts, Contract Performance Management, Initiation of Work, and Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards to be the important competencies (found in Table 7). Of these, senior-level employees had a higher than average proficiency in two of their important competencies: Close-out Contracts and Initiation of Work and each of the important competencies at the earlier career levels (Table 9). They also had a higher than average proficiency in Preparation and Negotiation.

Senior-level employees have a proficiency gap in important competencies in which they had lower than average proficiency including: Advanced Cost and/or Price Analysis, Contract Performance Management, and Negotiate Forward Pricing Rate Agreements and Administer Cost Account Standards.

As noted in the February 2009 assessment report by CNA for the DCMA contracting workforce, 73 percent of DCMA contracting employees indicated that they could retire in the next 14 years, 25 percent of this group could retire by 2013. It will be critical for DCMA leadership to prepare the Entry and Journey-level employees to fill this possible gap. Improving their proficiency in the competencies considered important by the Senior-level, veteran employees will be essential for mission success.

## **Proficiency level by job title**

To examine proficiency level by job title, we evaluated the proficiency for all competencies against proficiency for each competency in the job. We highlight in blue the competency name for those competencies indicated as important for each of the job titles. Above average proficiency ratings are highlighted in green.

## Contract Administrator and Contract Specialist

Table 10 shows that competencies rated as having higher than average importance for the Contract Administrator and Contract Specialist job titles, also were rated as having higher than average proficiency. There are no proficiency gaps for important competencies in the Contract Administrator or Contract Specialist job title categories. Appendix E show proficiency for each job title by career level.

Table 10. Proficiency Averages by Job Title: Contract Administrator and Contract Specialist

Competency	Contract Administrator Proficiency	Contract Specialist Proficiency
Advanced Cost and/or Price Analysis	2.31	2.89
Approve Payment Requests	3.18	3.47
Close-Out Contracts	3.39	3.68
Contract Award	2.42	2.80
Contract Performance Management	2.55	3.00
E-Business and Automated Tools	2.61	2.97
Initiation of Work	3.14	3.46
Issue Changes and Modifications	3.13	3.54
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	2.02	2.66
Preparation and Negotiation	2.58	3.06
Terms and Conditions	2.60	2.98
<b>Grand Average of All Competencies by Job Title*</b>	<b>2.72</b>	<b>3.14</b>

**Blue shaded name indicates competencies considered important specific to Job Title.** In order to determine these characteristics, comparisons were made against Job Title specific averages; e.g., Contract Administrator (frequency = 3.17; criticality = 3.37) and Contract Specialist (frequency = 3.10; criticality = 3.36).

**Green shading indicates above-average proficiency rating in this competency.**

## Contract Price/Cost Analyst

Table 11 shows that competencies rated as being important for the Contract Price/Cost Analyst job title was also rated as having higher

\* A grand average is one that is calculated by averaging the Composite Score from Employees and Supervisors, across all competencies for this Job Title: Contract Administrator.

than average proficiency. There are no proficiency gaps for important competencies in the Contract Price/Cost Analyst job title. Appendix F shows proficiency for Contract Price/Coast Analyst by career level.

Table 11. Proficiency Averages by Job Title: Contract Price/Cost Analyst

Competency	Contract Price/Cost Analyst Proficiency
Advanced Cost and/or Price Analysis	3.16
Approve Payment Requests	2.34
Close-Out Contracts	2.02
Contract Award	1.72
Contract Performance Management	2.52
E-Business and Automated Tools	2.46
Initiation of Work	1.95
Issue Changes and Modifications	2.06
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	2.75
Preparation and Negotiation	2.90
Terms and Conditions	2.34
<b>Grand Average of All Competencies by Job Title*</b>	<b>2.38</b>

*Blue shaded name indicates competencies considered important **specific to Job Title**. In order to determine these characteristics, comparisons were made against Job Title specific averages; e.g., Contract Price/Cost Analyst (frequency = 2.51; criticality = 2.66).*

*Green shading indicates above-average proficiency rating in this competency.*

These importance results suggest that Contract Price/Cost Analyst work is qualitatively different than that of Contract Administrators and Contract Specialists, which suggests the degree of fit of this competency model to this job title is low.

## Section summary

Average proficiency ratings highlight the relative strengths and areas requiring attention for a given career level, job title, or primary CMO (see Appendix B) within DCMA.

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\* A grand average is one that is calculated by averaging the Composite Score from Employees and Supervisors, across all competencies for this Job Title: Contract Price/Cost Analyst.

Average proficiency ratings, however, cannot by themselves indicate that adequate levels of proficiency have been achieved. A career level might have above-average proficiency in a given competency but the proficiency rating might fall well short of what is actually needed to get the job done. DCMA leadership should consider determining proficiency goals for each job title that reflect the skill level needed in the workforce at each career level to meet mission goals.

The model as a whole seems to fit Contract Specialists and Contract Administrators best. These two job titles were proficient at the competencies they rated as important. Contract Price/Cost Analysts, were also proficient at all the competencies that they indicated as important.

## **Section 5: Competency Assessment Results and DCMA Performance Indicators**

DCMA conducts an agency self-assessment each quarter of its organizational performance indicators. Contract Management Offices (CMOs) deliver their respective ratings. In Tables 12 and 13, if an indicator is coded orange it means that the CMO needs to improve performance in that area. A green indicator signifies that performance is within acceptable limits. Lack of color for an indicator means that the performance indicator was not rated that quarter.

In the DCMA-wide performance assessment of January of 2010, three of the 16 performance indicators were not rated (no fill color). Of the remaining 13 indicators, three were found to be Satisfactory (green) while 10 were found to be In Need of Improvement (orange). Table 12 summarizes the overall results for DCMA.

Table 12. DCMA Performance Indicator Results for January 2010

DCMA Performance Indicators	
1. AQ - Contract Closeout: Contracts closed within FAR timelines	
2. AQ - Contract Closeout: Number of overage contracts	
3. AQ - Contract Closeout: Number of contracts more than 180 days past FDD in MOCAS Section 1	
4. AQ - Canceling Funds: Funds on contract at risk of canceling	
5. AQ - Undefined Contract Actions: UCAs definitized within 180 days of order issuance or induction of asset	
6. AQ - Undefined Contract Actions: Number of overage UCAs	
7. AQ - Forward Pricing Rate Agreements (FRPAs): FPRA coverage for contractors that have ACAT I and II programs and annual Government sales > \$200M	
8. AQ - FRPAs: FPRA/FPRR coverage for contractors that have ACAT I and II programs and annual Government sales >\$200M	
9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date	
10. AQ - Proposal Pricing: Due dates acceptable to the customer acknowledged and established within 5 days of request	
11. AQ - Final Overhead Rates: Overheads negotiated within FAR timelines	
12. AQ - Final Overhead Rates: Number of overage overheads	
13. AQ - Final Overhead Rates: Overage overhead aging	
14. AQ - CAFU: Reportable audits dispositioned within 12 months	
15. AQ - CAFU: Number of overage reportable audits	
16. AQ - CAFU: Overage reportable audit aging	

*(January 2010 most recent performance indicators available at the time this report produced.)*

Satisfactory
  In Need of Improvement
  Not Rated this Quarter

## Conceptual linking of DCMA performance indicators to DCMA competencies

As part of the competency assessments, DCMA contracting employees were asked to associate the agency's performance indicators with DCMA competencies. Assessment participants provided a list of competencies they believe to be involved in its satisfactory performance for each performance indicator. For example, they thought that performance indicator 10 (Proposal Pricing) involved the competencies Contract Award and Preparation and Negotiation. Table 13 summarizes how each performance indicator was linked to one or more competency. Note: there were no performance indicators for E-Business and Automated Tools.

Table 13. Competencies and Associated Performance Indicators

Competency	Performance Indicators
Contract Award	10. AQ - Proposal Pricing: Due dates acceptable to the customer acknowledged and established within 5 days of request 10
Terms and Conditions	5. AQ - Unfinalized Contract Actions: UCAs finalized within 180 days of order issuance or induction of asset
	7. AQ - Forward Pricing Rate Agreements (FRPAs): FPRA coverage for contractors that have ACAT I and II programs and annual Government sales > \$200M
	8. AQ - FRPAs: FPRA/FPRR coverage for contractors that have ACAT I and II programs and annual Government sales >\$200M
	9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date
	11. AQ - Final Overhead Rates: Overheads negotiated within FAR timelines
Preparation and Negotiation	7. AQ - Forward Pricing Rate Agreements (FRPAs): FPRA coverage for contractors that have ACAT I and II programs and annual Government sales > \$200M
	9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date
	10. AQ - Proposal Pricing: Due dates acceptable to the customer acknowledged and established within 5 days of request
Advanced Cost and/or Price Analysis	9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date
	14. AQ - CAFU: Reportable audits dispositioned within 12 months
	15. AQ - CAFU: Number of overage reportable audits
Initiation of Work	1. AQ - Contract Closeout: Contracts closed within FAR timelines
	5. AQ - Unfinalized Contract Actions: UCAs finalized within 180 days of order issuance or induction of asset
	9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date
Contract Performance Management	9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date
	11. AQ - Final Overhead Rates: Overheads negotiated within FAR timelines
	12. AQ - Final Overhead Rates: Number of overage overheads
	13. AQ - Final Overhead Rates: Overage overhead aging
	14. AQ - CAFU: Reportable audits dispositioned within 12 months
Issue Changes and Modifications	5. AQ - Unfinalized Contract Actions: UCAs finalized within 180 days of order issuance or induction of asset
	6. AQ - Unfinalized Contract Actions: Number of overage UCAs
Approve Payment Requests	12. AQ - Final Overhead Rates: Number of overage overheads
	13. AQ - Final Overhead Rates: Overage overhead aging
Close-out Contracts	2. AQ - Contract Closeout: Number of overage contracts
	3. AQ - Contract Closeout: Number of contracts more than 180 days past FDD in MOCAS Section 1
	4. AQ - Canceling Funds: Funds on contract at risk of canceling
	11. AQ - Final Overhead Rates: Overheads negotiated within FAR timelines
	12. AQ - Final Overhead Rates: Number of overage overheads
	13. AQ - Final Overhead Rates: Overage overhead aging
	14. AQ - CAFU: Reportable audits dispositioned within 12 months
Negotiate Forward Pricing Rates Agreements & Administer Cost Accounting Standards	7. AQ - Forward Pricing Rate Agreements (FRPAs): FPRA coverage for contractors that have ACAT I and II programs and annual Government sales > \$200M
	8. AQ - FRPAs: FPRA/FPRR coverage for contractors that have ACAT I and II programs and annual Government sales >\$200M
	9. AQ - Proposal Pricing: Pricing Reports completed within 45 days or other mutually agreed upon due date
	14. AQ - CAFU: Reportable audits dispositioned within 12 months
	15. AQ - CAFU: Number of overage reportable audits
	16. AQ - CAFU: Overage reportable audit aging

Performance indicators, however, are generally a count or percentage of some total number, for example, Number of Overage Undefined Contract Actions UCAs. In other words, the two assessments capture two complementary aspects of the job that are not necessarily predictive of one another. For example, the entire workforce might indicate that they very frequently perform the competencies linked to Undefined Contract Actions: Number of overage UCAs. Employees may also believe that all the competencies associated with that performance indicator are extremely critical and consider themselves to be at the expert proficiency level. Even under these conditions the performance indicator might still be in need of improvement.

The workforce may have the skills, abilities, and knowledge needed to execute actions related to a particular performance indicator but be unable to keep up with the demands associated with processing the required workload in a timely manner. The ability to keep up with an assigned workload is not reflected in competency assessment data.

Another explanation for the gap between these performance indicators and the competencies associated with them might be that even those competencies with the highest average frequency, criticality, and proficiency ratings fall below the competency levels required to meet current mission goals. Both hypotheses could be tested empirically in future work.

The findings presented in this section suggest that additional data, such as employee workload levels, may be needed to link competency assessment results to organizational performance. Information about employee workloads is not captured in the competency assessment but is clearly an important factor in organizational performance. It is also one that Congress feels DOD must have to adequately address the AT&L workforce gap analyses.<sup>6</sup> In light of the

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<sup>6</sup> GAO-090616T, Testimony Before the Oversight and Investigations Subcommittee, Committee on Armed Services, House of Representatives, *ACQUISITION WORKFORCE: DOD Can Improve Its Management and Oversight by Tracking Data on Contractor Personnel and Taking Additional Actions*, April 28, 2009.

continuing concerns expressed by Congress, the Government Accounting Office (GAO), and the Pentagon about the effectiveness of AT&L actions to improve its ability to meet DoD contracting mission requirements, additional work to understand DCMA contracting's ability to meet workload demands (manpower studies) and goal alignment efforts, such as Balanced Scorecard development should be considered.

### **Manpower Requirements studies**

The DCMA contracting competency assessment will be a valuable tool for developing accurate workforce planning studies. Competency models help define current skill requirements, as well as the work functions employees and supervisors consider critical for successful job performance. The findings and recommendations developed through workforce competency assessment initiatives combined with manpower planning analysis will allow leadership to optimize the current workforce, and begin planning to make the necessary personnel changes, that will include training, re-training, hiring, redeployment, or other adjustments required to support short- and long-term mission goals.

### **Balanced Scorecard development**

Balanced scorecards can be useful tools when leadership needs to establish standards of accountability, governance, and risk management, and do so within a commonly understood framework. The Balanced Scorecard process helps disparate groups within an organization develop a common language for describing goals, values, mission, and strategy. It also helps leadership to clearly identify the activities that are key to mission success. Through the process of developing a balanced scorecard, leadership would be able develop a plan for prioritizing the competencies that most directly contribute to organizational success.

The 16 organizational performance indicators measured each quarter are linked in this report to the competencies identified by DCMA employees and supervisors. This linkage makes it possible for leadership to learn about the workforce's competencies in these areas. A smaller number of organizational performance indicators based on the type of prioritizing done in a balanced scorecard as-

assessment of mission priorities would make it easier for management to act on the most critical of these measures.

## Section 6: Conclusion and Next Steps

There is agreement in the DCMA contracting workforce about the competencies needed to successfully meet mission goals. DCMA employees and supervisors indicated four competencies that were very important to accomplishing their mission. In addition, results show that for the contracting workforce as a whole, the competencies considered to be important also had the highest average proficiency ratings.

The model, which examines workforce proficiency for the DCMA contracting workforce, fits the entry and journey-level employees in the Contract Specialist and Contract Administrator jobs. Senior-level employees and Contract Price/Costs Analysts tended to rate competencies differently than the others and a different model emerged from their responses.

We suggest that training programs be targeted to competencies with lower than average proficiency but also deemed important, such as those found at the Senior-levels. In addition, mentoring programs should be considered, particularly in light of the potential departure from DCMA of nearly three quarters of the contracting employee base in the next decade and a half. It will be critical for DCMA leadership to prepare the Entry and Journey-level employees to fill this possible workforce gap and the identified proficiency gaps.

Lastly, we suggest the organizational performance indicators, which have been conceptually linked to the competencies, be used in subsequent analysis to examine in what way proficiency at important competencies is related to overall organizational performance at the CMO-level and DCMA-levels.

In order to prioritize next steps, leadership should consider bringing together the DCMA Contracting Directors to review the findings and begin to develop a strategy for making changes in how the workforce is developed. A steering committee made up of the Directors from the six largest CMOs (see Table 3) could be formed

to determine how best to make use of the workforce information garnered through the competency assessment.

Upon reviewing the proficiency levels and proficiency gaps uncovered in this assessment, the steering committee could propose DCMA-wide strategies for using the competency information to:

- Improve existing workforce capability using gap closure strategies, including
  - DAU classroom courses
  - Self-paced, on-line courses
  - College courses
  - Rotational assignments
  - On-the-job mentoring
- Address immediate critical workforce capability gaps through targeted hiring to provide missing skills
- Open a dialog between CMOs for sharing best practices that contribute to higher levels of proficiency and performance indicators among all CMOs

The steering committee would be able to propose action steps to DCMA leadership, as well as provide a critical communication link at the CMO level.

# Appendix A

## DCMA Contracting Competency Model

Table 14. The Model

Units of Competence	Competencies	Elements	Knowledge Items
Pre-Award and Award	Contract Award	1. Award contract/ Issue task or delivery orders after ensuring fund availability and obtaining reviews and approvals.	Knowledge of requirements/systems for contract preparation, execution, distribution, including obtaining any needed reviews or approvals.
			Knowledge of appropriations (i.e., Purpose, Time and Amount) applicable for the contract action.
			Knowledge of requirements for, and limitations on, pre-award and post award notifications.
			Knowledge of importance and procedures for accurately reporting to the Federal Procurement Data System.
Develop and/or Negotiate Positions	Terms and Conditions	2. Determine terms and conditions, including special contract requirements applicable to the acquisition, that are appropriate for the acquisition to comply with laws and regulations (e.g. method of financing, Government property, intellectual property, organizational conflict of interest (OCI), specialty metals).	Knowledge of the requirement (including issues that have arisen on similar past procurements), customer needs and their expectations of executed contract.

			<p>Knowledge of private industry business practices.</p> <p>Knowledge of FAR/DFARS and other procurement requirements, especially FAR Part 52, and ability to select the appropriate solicitation provisions and contract clauses.</p> <p>Knowledge of terms and conditions associated with applicable special categories of contracting described in FAR Parts 34, 35, 36, 37, 38, 39 and 41 (and supplemental regulation, policy and procedures).</p> <p>Knowledge of key financial rules.</p> <p>Ability and experience to identify issues and develop special contract requirements needed to protect Government interests.</p> <p>Knowledge of intellectual property (FAR Part 27 and supplemental regulation, policy and procedures), to include the differences between the various types of patent and data rights and the inherent flexibility with the regulation.</p> <p>Knowledge of the potential causes and means of avoiding or handling conflicts of interest (FAR Part 4 and 9.5 and supplemental regulation, policy and procedures).</p>
	<b>Preparation and Negotiation</b>	3. Prepare for negotiations / discussions / awards by reviewing audit and technical reports, performing cost and/or price analysis (or reviewing price analysts reports), and developing pre-negotiation position to include identifying potential trade-offs.	<p>Knowledge of pertinent procurement regulations (to include FAR Part 12, 15, 31 and 32) and key financial rules.</p> <p>Knowledge of the requirement, industry practices, and available alternatives.</p> <p>Knowledge of the industry from which you are purchasing (e.g., IT, construction, R&amp;D) to include the unique requirements and/or procedures associated with applicable special categories of contracting described in FAR Parts 34, 35, 36, 37, 38, 39 and 41 (and supplemental regulation, policy and procedures).</p> <p>Knowledge of the cost proposal, contractor's estimating system and audit/advisory reports.</p> <p>Knowledge of roles and responsibilities and rules of engagement during exchanges.</p> <p>Knowledge of negotiation styles, strategies, and tactics.</p>

	<p><b>Preparation and Negotiation (cont'd)</b></p>	<p>4. Negotiate terms and conditions (including price) based on the pre-negotiation objective and give-and-take with the offeror to establish a fair and reasonable price.</p>	<p>Knowledge of the requirement, industry practices, and available alternatives.</p> <p>Knowledge of applicable unique provisions and/or procedures associated with special categories of contracting described in FAR Parts 34, 35, 36, 37, 38, 39 and 41 (and supplemental regulation, policy and procedures).</p> <p>Knowledge of the proposal, questioned costs and weighted guidelines application.</p> <p>Knowledge of strategies and tactics for negotiating contract terms and conditions, including price.</p> <p>Knowledge of the documentation requirements such as a Proposal Analysis Report (PAR), Pre-Negotiation Objective Memorandum (PNO), and Price Negotiation Memorandum (PNM).</p>
		<p>5. Issue work requests for maintenance, overhaul, modification, and repair to ensure work is required, not covered under the basic contract line item(s), and necessary to satisfactorily complete the contract.</p>	<p>Knowledge of pertinent procurement regulations (DFARS 217-77).</p> <p>Knowledge of structuring contract line items for over and above work.</p> <p>Knowledge of negotiating procedures for over and above work requests.</p> <p>Knowledge of procedures for Government administration and Contractor performance of over and above work requests including authorizing over and above work as necessary.</p> <p>Knowledge of procedures for establishing blanket work request authorizations.</p>
		<p>6. Definitize undefinitized contract actions timely to comply with the acquisition regulation and ensure fair and reasonable prices.</p>	<p>Knowledge of FAR 16.6 and DFARS 217.74, Undefinitized Contract Actions.</p> <p>Knowledge of limitations on obligations.</p> <p>Knowledge of definitization schedules and timelines for completing definitizations.</p> <p>Knowledge of strategies and tactics for negotiating profit after substantial costs have been incurred.</p> <p>Knowledge of establishing price ceilings.</p> <p>Knowledge of available remedies when contractors fail to submit qualify proposal in accordance with the definzation schedule.</p> <p>Knowledge of Pricing and Negotiation eTool.</p>
<p><b>Advanced Cost and/or Price Analysis</b></p>	<p><b>Advanced Cost and/or Price Analysis</b></p>	<p>7. Evaluate the reasonableness of the contractor's proposed cost/price for use in preparing for complex negotiations.</p>	<p>Specialized knowledge of cost and price analysis principles and techniques to develop complex pricing arrangements and incentives.</p>

			<p>Knowledge of business and industry accounting principles and practices applicable to the procurement, including any applicable special categories of contracting described in FAR Parts 34, 35, 36, 37, 39 and 41, as well as alternate sources of pricing information for each industry group.</p>	
	<p>Advanced Cost and/or Price Analysis (cont'd)</p>		<p>Knowledge of advanced accounting concepts/techniques, cost principles, cost accounting standards, estimating, purchasing and accounting systems, and material management accounting systems.</p>	
		<p>8. Evaluate the accuracy, completeness, and currency of cost or pricing data to determine whether the contractor submitted defective cost or pricing data.</p>	<p>Knowledge of economic, statistical, accounting and financial analysis principles and techniques necessary to (1) analyze current and historical cost data to evaluate contractor's projections; (2) analyze auditor and technical reports; (3) project price trends, isolate economic factors and evaluate efficiencies; and (4) analyze and/or monitor the contractor's financial condition.</p>	
			<p>9. Develop positions on complex pricing-related</p>	<p>Knowledge of requirements sufficient to use technical and audit reports in evaluating costs and establishing negotiation objectives.</p>
				<p>Knowledge of price analysis techniques to establish fair and reasonable prices.</p>
			<p>Knowledge of cost analysis techniques to determine cost reasonableness or cost realism.</p>	
			<p>Knowledge of the weighted guidelines method to establish profit or fee objectives based on cost analysis.</p>	
			<p>Knowledge of make-or-buy programs.</p>	
			<p>Knowledge of forward pricing rate agreements.</p>	
		<p>Knowledge of should-cost reviews including overhead should-cost reviews.</p>		
		<p>Knowledge of allowability criteria for IR&amp;D/B&amp;P and procedures for determining whether the projects are of potential interest to DoD.</p>		
		<p>Knowledge of the Truth in Negotiations Act (TINA) and certified cost or pricing data.</p>		
		<p>Knowledge of determining whether data submitted were defective and relied upon by the Government.</p>		
		<p>Knowledge of price adjustment, including profit or fee, for defective pricing.</p>		
		<p>Knowledge of offsets for any understated cost or pricing data.</p>		
	<p>Knowledge of penalties and interest for defective pricing.</p>			
	<p>Knowledge of the recovery mechanism for defective pricing including penalties and interest.</p>			
	<p>Knowledge of defective subcontractor cost or pricing data recovery.</p>			
	<p>Specialized knowledge of cost and price analysis principles and techniques to develop complex pricing-related</p>			

		contract terms and conditions to aid in developing the Government's position.	ing arrangements and incentives.
			Knowledge of business and industry accounting principles and practices applicable to the procurement, including any applicable special categories of contracting described in FAR Parts 34, 35, 36, 37, 39 and 41, as well as alternate sources of pricing information for each industry group.
			Knowledge of contracts and pre-award and post-award procedures sufficient to structure and recommend financial arrangements that provide incentives for efficient and economical contract performance.
	<b>Advanced Cost and/or Price Analysis (cont'd)</b>	10. Support special cost, price, and finance efforts by researching, analyzing and providing recommended positions that are in the best interests of the Government.	Knowledge of audit report findings and other relevant studies impacting procurement policy.
			Knowledge of business and industry accounting principles and practices applicable to the procurement or industry, including any applicable special categories of contracting described in FAR Parts 34, 35, 36, 37, 39 and 41, as well as alternate sources of pricing information for each industry group.
			Knowledge of economic, statistical, accounting and financial analysis principles and techniques necessary to (1) analyze current and historical cost data to evaluate contractor's projections; (2) analyze auditor and technical reports; (3) project price trends, isolate economic factors and evaluate efficiencies; and (4) analyze and/or monitor the contractor's financial condition.
		11. Evaluate Award Fee/Incentive Fee Plans and arrangements, for adherence to policy and guidance.	Knowledge of contract types and various cost and performance incentives.
<b>Contract Administration</b>	<b>Initiation of Work</b>	12. Conduct post-award orientations to address customer concerns and contractor's responsibilities for performance on the contract.	Knowledge of contract to ensure contractor understands its obligations under the contract.

			<p>Knowledge of FAR/DFARS and other procurement requirements regarding post-award orientations, especially FAR Part 42.5.</p> <p>Knowledge of contract receipt and review (CRR) eTool and DCMA policy on CRR.</p> <p>Knowledge of post award conference arrangements.</p> <p>Knowledge of post award conference procedures.</p> <p>Knowledge of post award conference reports.</p> <p>Knowledge of post award subcontractor conferences.</p>
		13. Plan for contract administration regarding delegating administrative functions and formally establishing all contract administration responsibilities.	<p>Knowledge of contract administration functions.</p> <p>Knowledge of automated systems including MOCAS, EDA, EDW, REVEAL, WAWF, FPDS, DCMA, and SDW.</p> <p>Knowledge of the contract to include how the contract type, quality assurance plans, and associated payment/financing requirements drive/influence contract administration and payment.</p>
	<b>Contract Performance Management</b>	14. Administer contract by monitoring quality assurance representatives (QARs) feedback, DCAA audits, contractor performance, and enforcing contractor compliance with contract requirements.	<p>Knowledge of the contract administration functions as prescribed in FAR 42.</p> <p>Knowledge of the performance-related terms and conditions of the contract and the regulatory requirements related thereto.</p> <p>Knowledge of the roles and responsibilities of Government and contractor personnel.</p>
	<b>Contract Performance Management (cont'd)</b>		<p>Knowledge of the contract, Government and contractor's surveillance systems, reporting requirements, and how best to ensure contract terms are being met.</p> <p>Knowledge of potential remedies to enforce compliance with contract requirements.</p> <p>Knowledge of contract audit follow-up (CAFU) and procedures and timelines for dispositioning and resolving reportable contract audits.</p> <p>Knowledge of Contract Management Boards of Review policy including escalation procedures to resolve disagreements between DCAA and DCMA.</p> <p>Knowledge of procedures for reporting potential over or underruns of estimated costs under cost-reimbursement contracts.</p> <p>Knowledge of contractor's financial condition and procedures for notifying contracting officers when a contractor's financial condition may jeopardize contract performance.</p> <p>Knowledge of consent to subcontract.</p>

			Knowledge of novation and change of name agreements.
		15. Oversee contractor business systems to reduce risks to the Government and ensure compliance with contractual requirements.	Knowledge of accounting systems.
			Knowledge of estimating systems.
			Knowledge of earned value systems.
			Knowledge of material management and accounting systems.
			Knowledge of property management systems.
			Knowledge of purchasing systems.
			Knowledge of Government remedies for business systems deficiencies.
		16. Negotiate final indirect cost rates to establish the rates to be used to close flexibly-priced contracts.	Knowledge of criteria for determining whether rates are determined by the contracting officer or auditor.
			Knowledge of final indirect cost rate proposals including timelines for submission, adequacy of proposals, and criteria for granting extensions.
			Knowledge of resolving questioned costs including required auditor input.
			Knowledge of written rate agreements and documentation requirements for the negotiations.
			Knowledge of determining penalties for expressly unallowable or other unallowable costs.
			Knowledge of procedures to waive penalties for expressly unallowable costs.
			Knowledge of calculating interest on expressly unallowable costs.
			Knowledge of Final Overhead eTool.
	Contract Performance Management (cont'd)	17. Ensure past performance evaluation is initiated to ensure documentation of performance including contracting officer input.	Knowledge of rules, systems, and procedures for collection and dissemination of past performance information, including the PPIRS.
			Knowledge of contract requirements and actual performance.
		18. Analyze, negotiate, and prepare claims file in order to issue final decisions.	Knowledge of FAR Part 33 (and supplemental regulation, policy and procedures) and the disputes process.
	Knowledge of the contract and the business matter relating to the dispute.		
	Knowledge of the statute of limitations for initiation of a Government claim.		
	19. Identify and collect contract debts to recover monies owed to the Government.		Knowledge of contract debts including FAR Subpart 32.6.
			Knowledge of responsible officials for identifying and collecting contract debts.
			Knowledge necessary to prepare demands for payment.
			Knowledge necessary to prepare final decisions.

			<p>Knowledge of procedures for recovering contract debts.</p> <p>Knowledge of procedures for installment of payment and deferment of collections.</p> <p>Knowledge of interest calculations for contract debt including the due date for calculating interest, the type of interest (simple versus compound), and the applicable interest rate(s).</p> <p>Knowledge of restrictions on compromising contract debts.</p>
		20. Resolve contract performance problems by gathering facts, determining remedies, and initiate remedial actions in order to find and provide a solution.	<p>Knowledge of remedies appropriate to the situation.</p> <p>Knowledge of the industry from which you are purchasing to include the unique requirements and/or procedures associated with applicable Special Categories of Contracting described in FAR Parts 34, 35, 36, 37, 38, 39, and 41 (and supplemental regulation, policy and procedures).</p> <p>Knowledge of the contract and facts relative to contractor's performance.</p>
	<b>Issue Changes and Modifications</b>	21. Analyze the need for contract modifications and negotiate and issue contract modifications, as required.	<p>Knowledge of the authorities, rules and procedures for issuing contract modifications and exercising options, to include recognizing when work is outside the scope of the contract.</p> <p>Knowledge associated with Proposal Analysis and Preparation and Negotiation techniques.</p> <p>Knowledge of Modification and Delivery Order (MDO) eTool and use of the MDO eTool to automatically populate the Federal Procurement Data System (FPDS).</p> <p>Knowledge of authority to issue change orders and priced/unpriced orders under the basic contract.</p> <p>Knowledge of requirements for contract modification preparation, execution, and distribution.</p> <p>Knowledge of uniform procurement instrument identification numbers, uniform contract line item numbering system, and contract accounting classification reference numbers (ACRNs).</p>
	<b>Issue Changes and Modifications (cont'd)</b>		<p>Knowledge to negotiate or execute supplemental agreements incorporating contractor proposals resulting from change orders issued under the Changes Clause.</p> <p>Knowledge necessary to negotiate equitable adjustments under the Changes Clause.</p>
	<b>Approve Payment Requests</b>	22. Approve contractor request for payments to include final vouchers under cost reimbursement contracts, progress pay-	<p>Knowledge of contract terms and conditions.</p> <p>Knowledge of FAR and DFARS cost principles.</p> <p>Knowledge of prompt payments standards and various types of payments (e.g., progress pay-</p>

		ments, performance-based payments, or commercial financing.	ments, performance based payments, or commercial financing).		
			Knowledge of lines of accounting, and various payment forms and systems, to include use of wide area workflow (WAWF).		
			Knowledge of processing public vouchers including approval authority for interim and final vouchers, and billing rates.		
			Knowledge of progress payments including quarterly limitation on payment (QLOP) and procedures for recovering overpayments.		
			Knowledge of performance-based payments (PBPs) including procedures for review and approval or disapproval of PBPs.		
			Knowledge of commercial financing payments and monitoring contractor security for commercial financing.		
			Knowledge of payment instructions to assign payments to the appropriate accounting classification citations.		
			<b>Close-Out Contracts</b>	23. Close-out contracts following proper procedure to ensure property disposition, final payments, and documents/clearances have been received.	Knowledge of procedures for the disposition of property, classified information, proprietary data, patents, and royalties.
					Knowledge of the agency's policies on records maintenance and disposition.
					Knowledge of MOCAS closeout procedures and criteria for moving contracts to Section 2.
		Knowledge of time standards for closing out contracts.			
		Knowledge of physically complete contracts.			
		Knowledge of contract audit closing statement and cumulative allowable cost worksheets.			
		Knowledge of process for deobligating excess funds.			
<b>Negotiate Forward Pricing Rates Agreements &amp; Administer Cost Accounting Standards</b>	<b>Negotiate forward pricing rate agreements &amp; Administer Cost Accounting Standards</b>	24. Negotiate forward pricing rate agreements (FPRAs) and Forward Pricing Rate Recommendations (FRRs) to establish the basis for pricing and negotiating contract actions.	Knowledge of cost principles and procedures including composition of total costs and procedures for determining allowability, reasonableness, and allocability.		

			<p>Knowledge of appropriate bases for general and administrative expenses, home office allocations, and indirect cost rates.</p> <p>Knowledge of quantitative methods including regression analysis.</p> <p>Knowledge of cost monitoring techniques to monitor changes that may make the FPRA or FPRR invalid.</p> <p>Knowledge of negotiation strategies, tactics, styles, and techniques.</p>
	<p><b>Negotiate forward pricing rate agreements &amp; Administer Cost Accounting Standards (cont'd)</b></p>	<p>25. Plan for Cost Accounting Standards (CAS) Administration to establish appropriate surveillance.</p>	<p>Knowledge of CAS applicability and types of CAS coverage.</p>
			<p>Knowledge of cognizant Federal agency responsibilities for administration of CAS.</p>
			<p>Knowledge of CAS Disclosure Statement filing requirements.</p>
			<p>Knowledge of each CASs, e.g., 401 through 418, and 420.</p>
			<p>Knowledge of basic allocability principles.</p>
			<p>Knowledge of managerial accounting.</p>
			<p>Knowledge of implementing FAR contract clauses.</p>
		<p>26. Determine whether CAS Disclosure Statement is adequate and in compliance with CAS to ensure compliance with Public Law 100-679.</p>	<p>Knowledge of procedures for CAS Disclosure Statement adequacy determinations.</p>
			<p>Knowledge of procedures for CAS Disclosure Statement compliance determinations.</p>
			<p>Knowledge of subcontractor disclosure statement requirements.</p>
	<p>27. Determine whether contractor accounting changes are required, unilateral, or desired changes that may require cost impact statement to adjust contract costs or prices.</p>	<p>Knowledge of required changes to disclosed or established cost accounting practices.</p>	
		<p>Knowledge of required, unilateral, and desirable changes.</p>	
		<p>Knowledge of contractors' procedural requirement for making changes to disclosed or established cost accounting practices.</p>	

			Knowledge of procedures for process changes to disclosed or established cost accounting practices.
		28. Process CAS noncompliances to determine whether cost impact statement is needed to adjust contract costs or prices.	Knowledge of initial determinations and timelines and procedures for issuing a notice of potential noncompliance.
			Knowledge of content requirement for notice of potential noncompliances.
			Knowledge of procedures for making a determination of compliance or noncompliance.
			Knowledge of materiality determinations for non-compliances.
			Knowledge of available remedies when contractors fail to correct noncompliances or submit required proposals.
		29. Determine cost impact for accounting changes and CAS noncompliance to determine whether to adjust contract costs or prices.	Knowledge of general dollar magnitude (GDM) proposal content and purpose.
			Knowledge of increased and decreased costs including impacts to incentive fees and profit for fixed-price and flexibly-priced contracts and sub-contracts.
			Knowledge of GDM proposal evaluation procedures.
			Knowledge of detailed cost-impact (DCI) proposal content and purpose.
			Knowledge of calculating cost impacts for unilateral, required, or desirable changes
			Knowledge of increased costs in the aggregate and interest of increased costs paid.
			Knowledge of increased costs for estimating and accumulating noncompliances.
			Knowledge of procedures for calculating increased costs in the aggregate.
	Negotiate forward pricing rate agreements & Administer Cost Accounting Standards (cont'd)	30. Negotiate and resolve cost impacts.	Knowledge of procedures for coordination with affected contracting officer before negotiating and resolving cost impact when the estimated cost impact on any of their contracts exceeds \$100,000.
			Knowledge of procedures for adjusting a single contract, several contracts, or all contracts.

			<p>Knowledge of restrictions on combining cost impacts of accounting changes and/or noncompliances.</p> <p>Knowledge of negotiation and document requirements for cost impacts.</p>
		31. Negotiate advance agreements covering the reasonableness, allocability, allowability of costs to avoid possible subsequent disallowance or dispute of the costs under the cost principles.	<p>Knowledge of procedures for making contract adjustments based on the type of change or noncompliance.</p> <p>Knowledge of cost principles in FAR Part 31.</p> <p>Knowledge of treatment of special or unusual costs.</p> <p>Knowledge of statistical sampling methodologies for estimating unallowable costs.</p> <p>Knowledge of the types of costs for which advance agreements are particularly important.</p> <p>Knowledge of the allowability, allocability, and reasonableness of costs.</p> <p>Knowledge of notice of intent to disallow cost.</p> <p>Knowledge of disallowing costs after incurrence.</p> <p>Knowledge of allowability criteria for IR&amp;D/B&amp;P and procedures for determining whether the projects are of potential interest to DoD.</p>
General Competencies	E-Business and Automated Tools	32. Use e-business systems and automated tools to promote standardization, efficiency, and transparency.	<p>Knowledge of e-business systems (e.g., Fed-BizOps, FedTeDS, CCR, WAWF-RA).</p> <p>Knowledge of automated tools (e.g., SPS, EZ-Quant, DAU Pricing Support Tool).</p> <p>Knowledge of systems that maintain information on contractors (e.g., CCR, ORCA, PPIRS, EPLS).</p> <p>Knowledge of use and importance of accurate data in e-business management systems.</p> <p>Knowledge of on-line training systems.</p>

# Appendix B

## Average Frequency, Criticality, and Proficiency by Primary CMO

Table 15. Competency ratings by Primary CMO

Locations (with 5 or more respondents only)		Competencies				
Primary CMO	Measure	<i>Advanced Cost and/or Price Analysis</i>	<i>Approve Payment Requests</i>	<i>Close-Out Contracts</i>	<i>Contract Award</i>	<i>Contract Performance Management</i>
DCMA Aircraft Integration Maintenance Operations (AIMO)	Avg. frequency	2.52	3.29	3.55	2.68	2.64
	Avg. criticality	3.00	3.70	3.89	2.70	3.21
	Avg. proficiency	2.81	3.47	3.59	2.84	2.91
DCMA Aircraft Propulsion Operations (APO)	Avg. frequency	2.88	3.00	3.83	3.29	2.98
	Avg. criticality	2.97	3.47	3.94	3.21	3.11
	Avg. proficiency	2.59	2.75	3.25	3.00	2.78
DCMA Americas	Avg. frequency	2.32	3.64	4.34	2.21	2.87
	Avg. criticality	2.95	4.02	4.12	2.36	3.33
	Avg. proficiency	2.51	3.30	3.59	2.64	2.83
DCMA Baltimore, MD	Avg. frequency	2.78	3.85	4.07	2.14	3.10
	Avg. criticality	3.36	3.92	3.93	2.49	3.37
	Avg. proficiency	2.61	3.15	3.26	2.19	2.72
DCMA Boston, MA	Avg. frequency	2.70	3.81	4.31	2.48	2.69
	Avg. criticality	2.86	3.72	4.14	2.28	2.86
	Avg. proficiency	2.53	3.24	3.36	2.48	2.49
DCMA Chicago, IL	Avg. frequency	2.46	3.56	4.00	2.33	2.91
	Avg. criticality	2.69	3.56	3.85	1.78	2.98
	Avg. proficiency	2.23	2.89	3.24	2.67	2.44
DCMA Dallas, TX	Avg. frequency	2.79	3.41	3.61	1.86	2.86
	Avg. criticality	3.20	3.68	3.86	2.16	3.32
	Avg. proficiency	2.60	3.08	3.17	2.23	2.62
DCMA Dayton, OH	Avg. frequency	2.58	4.23	4.38	2.05	3.16
	Avg. criticality	2.84	4.05	4.15	1.90	3.36
	Avg. proficiency	2.52	3.28	3.38	1.80	2.75
DCMA Denver, CO	Avg. frequency	2.65	3.66	4.18	1.67	3.04
	Avg. criticality	3.31	4.23	4.32	2.02	3.55
	Avg. proficiency	2.51	3.23	3.24	1.88	2.68
DCMA Detroit, MI	Avg. frequency	2.18	3.67	4.13	2.83	2.73

	Avg. criticality	2.42	3.72	4.19	2.42	3.10
	Avg. proficiency	2.42	3.28	3.19	2.75	2.69
DCMA GC, NY	Avg. frequency	3.29	3.58	3.86	3.35	2.79
	Avg. criticality	3.74	4.12	4.02	3.53	3.49
	Avg. proficiency	3.25	3.42	3.68	3.59	3.07
DCMA Hartford, CT	Avg. frequency	2.75	4.12	4.02	2.28	2.88
	Avg. criticality	3.34	4.27	4.26	2.79	3.31
	Avg. proficiency	2.63	3.61	3.43	2.62	2.65
DCMA Lathrop, CA	Avg. frequency	3.08	3.23	3.63	2.93	3.01
	Avg. criticality	3.44	3.61	3.79	2.89	3.39
	Avg. proficiency	3.00	3.21	3.36	2.93	2.93
DCMA LA, CA	Avg. frequency	2.48	3.62	4.27	2.88	2.63
	Avg. criticality	3.11	3.90	4.31	3.03	3.31
	Avg. proficiency	2.61	3.21	3.67	2.56	2.64
DCMA Manassas, VA	Avg. frequency	2.28	3.85	4.63	1.94	3.13
	Avg. criticality	2.82	4.03	4.38	2.13	3.66
	Avg. proficiency	2.30	3.11	3.37	2.07	2.64
DCMA NASA Prod. Ops. (NPO)	Avg. frequency	2.57	3.13	3.09	2.53	2.49
	Avg. criticality	3.04	3.65	3.27	2.85	3.08
	Avg. proficiency	3.02	3.35	3.57	3.21	3.00
DCMA Orlando, FL	Avg. frequency	2.15	3.74	4.51	2.15	2.75
	Avg. criticality	2.93	3.84	3.99	2.85	3.05
	Avg. proficiency	2.21	2.97	3.27	2.33	2.32
DCMA Pacific	Avg. frequency	1.89	3.83	4.38	3.00	2.69
	Avg. criticality	2.45	4.42	4.46	3.45	3.00
	Avg. proficiency	2.30	3.58	3.96	3.18	2.55
DCMA Palmdale, CA	Avg. frequency	2.03	3.50	3.56	2.33	2.38
	Avg. criticality	1.97	3.75	3.83	2.50	2.58
	Avg. proficiency	1.89	3.06	3.33	2.08	2.16
DCMA Phil., PA	Avg. frequency	2.96	4.33	4.33	2.50	3.25
	Avg. criticality	3.36	4.39	4.28	2.06	3.61
	Avg. proficiency	3.17	3.89	3.72	2.44	3.20
DCMA Phoenix, AZ	Avg. frequency	2.80	3.75	4.21	2.10	3.37
	Avg. criticality	3.30	4.01	4.28	2.10	3.69
	Avg. proficiency	2.93	3.47	3.60	2.40	3.12
DCMA Santa Ana, CA	Avg. frequency	2.65	3.38	3.93	2.40	2.62
	Avg. criticality	2.85	3.85	4.03	2.35	3.15
	Avg. proficiency	2.36	2.98	3.21	2.29	2.34
DCMA So. Europe	Avg. frequency	2.53	3.87	3.94	1.88	2.85
	Avg. criticality	3.38	4.10	4.24	2.56	3.46
	Avg. proficiency	3.10	3.67	3.74	3.00	2.89
DCMA Springfield, NJ	Avg. frequency	2.38	3.86	4.13	2.37	2.85
	Avg. criticality	3.04	3.98	4.13	2.76	3.25
	Avg. proficiency	2.71	3.45	3.72	2.74	2.91
DCMA Twin Cities, MN	Avg. frequency	2.54	3.63	3.94	2.69	2.69
	Avg. criticality	3.20	4.00	4.14	3.04	3.44
	Avg. proficiency	2.82	3.53	3.71	2.92	2.92

Locations (repeated)	Competencies (continued)						
Primary CMO	Measure	<i>E-Business and Automated Tools</i>	<i>Initiation of Work</i>	<i>Issue Changes and Modifications</i>	<i>Negotiate forward pricing rate agreements &amp; Administer Cost Accounting Standards</i>	<i>Preparation and Negotiation</i>	<i>Terms and Conditions</i>
DCMA Aircraft Integration Maintenance Ops. (AIMO)	Avg. frequency	3.55	3.13	3.80	2.13	2.99	2.90
	Avg. criticality	2.93	3.66	3.84	2.93	3.15	3.00
	Avg. proficiency	2.61	3.43	3.71	2.71	3.17	3.01
DCMA Aircraft Propulsion Ops. (APO)	Avg. frequency	3.00	3.31	3.78	3.09	3.38	3.89
	Avg. criticality	2.55	3.36	3.58	3.47	3.49	3.44
	Avg. proficiency	2.10	3.00	3.03	2.99	3.02	3.22
DCMA Americas	Avg. frequency	3.76	3.46	3.59	2.34	2.56	3.32
	Avg. criticality	3.43	3.79	3.94	3.23	3.02	3.23
	Avg. proficiency	3.16	3.48	3.39	2.71	2.81	2.82
DCMA Balt., MD	Avg. frequency	3.18	3.54	3.53	2.86	3.02	3.00
	Avg. criticality	3.30	3.50	3.59	3.63	3.37	2.96
	Avg. proficiency	2.65	2.98	3.00	2.68	2.69	2.46
DCMA Boston, MA	Avg. frequency	2.97	3.69	3.53	2.33	2.82	3.07
	Avg. criticality	2.45	3.56	3.49	2.65	2.85	2.66
	Avg. proficiency	2.14	3.07	3.08	2.15	2.60	2.52
DCMA Chicago, IL	Avg. frequency	2.87	3.54	3.61	2.02	2.49	2.75
	Avg. criticality	2.77	3.47	3.28	2.18	2.54	2.58
	Avg. proficiency	2.13	2.96	2.75	2.08	2.52	2.54
DCMA Dallas, TX	Avg. frequency	3.25	3.45	3.07	2.53	2.76	2.87
	Avg. criticality	3.22	3.56	3.47	3.23	3.07	2.81
	Avg. proficiency	2.69	3.01	2.98	2.44	2.62	2.40
DCMA Dayton, OH	Avg. frequency	3.67	4.09	4.04	2.31	2.91	3.08
	Avg. criticality	3.41	3.87	3.76	2.87	2.85	2.86
	Avg. proficiency	2.71	3.18	3.16	2.23	2.61	2.53
DCMA Denver, CO	Avg. frequency	3.49	3.99	3.79	2.22	2.96	2.83
	Avg. criticality	3.39	4.23	4.12	3.11	3.19	2.81
	Avg. proficiency	2.54	3.40	3.09	2.30	2.61	2.24
DCMA Detroit, MI	Avg. frequency	3.71	3.28	3.70	2.19	2.43	2.70
	Avg. criticality	2.64	3.39	3.80	2.50	2.84	3.25
	Avg. proficiency	2.50	3.08	3.20	2.04	2.55	2.75
DCMA GC, NY	Avg. frequency	3.14	3.49	3.96	2.44	3.68	3.32
	Avg. criticality	3.27	3.86	4.15	3.11	4.08	3.56
	Avg. proficiency	3.02	3.46	3.57	2.76	3.54	3.20
DCMA Hartford, CT	Avg. frequency	3.55	3.68	3.77	2.07	2.94	3.16

	Avg. criticality	3.56	3.87	3.99	2.99	3.47	3.39
	Avg. proficiency	2.99	3.09	3.33	2.05	2.83	2.84
DCMA Lathrop, CA	Avg. frequency	3.50	3.59	3.43	2.84	3.15	3.26
	Avg. criticality	3.17	3.54	3.65	3.42	3.48	3.42
DCMA LA, CA	Avg. proficiency	2.92	3.25	3.32	2.82	3.13	3.07
	Avg. frequency	3.00	3.80	3.77	1.86	2.99	3.35
DCMA Man., VA	Avg. criticality	3.24	3.83	3.88	2.79	3.33	3.33
	Avg. proficiency	2.76	3.24	3.29	2.09	2.79	2.63
DCMA NASA Prod. Ops. (NPO)	Avg. frequency	3.74	3.84	3.70	2.35	2.60	2.88
	Avg. criticality	3.55	4.01	3.76	3.36	2.98	2.93
DCMA Orlando, FL	Avg. proficiency	2.67	3.10	2.91	2.18	2.47	2.42
	Avg. frequency	2.37	2.96	3.04	2.21	2.39	2.88
DCMA Pacific	Avg. criticality	2.71	3.18	3.30	3.21	2.88	2.85
	Avg. proficiency	2.55	3.28	3.30	3.06	3.04	3.06
DCMA Palmd., CA	Avg. frequency	3.57	3.93	3.67	2.01	2.59	2.75
	Avg. criticality	3.29	3.63	3.60	2.77	3.20	3.03
DCMA Phil., PA	Avg. proficiency	2.59	2.97	2.93	1.65	2.48	2.45
	Avg. frequency	2.38	3.14	4.50	1.53	3.26	3.09
DCMA Phoenix, AZ	Avg. criticality	3.08	3.90	4.38	2.17	3.34	3.18
	Avg. proficiency	2.88	3.17	3.71	1.87	2.72	2.82
DCMA SA, CA	Avg. frequency	3.43	3.19	3.44	1.47	2.97	2.86
	Avg. criticality	3.00	3.34	3.67	1.81	2.95	2.71
DCMA So. Europe	Avg. proficiency	2.93	3.09	3.28	1.52	2.67	2.43
	Avg. frequency	3.63	3.72	4.00	2.65	3.02	3.25
DCMA Springf., NJ	Avg. criticality	3.06	4.11	4.00	3.46	3.26	2.94
	Avg. proficiency	2.81	3.47	3.33	2.89	3.24	2.94
DCMA TC, MN	Avg. frequency	3.47	3.83	3.54	2.56	2.88	3.30
	Avg. criticality	3.09	3.96	3.59	3.36	3.03	3.04
DCMA TC, MN	Avg. proficiency	2.88	3.44	3.30	2.63	2.82	2.93
	Avg. frequency	3.35	3.39	3.65	1.99	2.77	2.93
DCMA So. Europe	Avg. criticality	3.12	3.73	3.78	2.70	3.02	2.82
	Avg. proficiency	2.37	2.98	3.01	1.86	2.53	2.36
DCMA Springf., NJ	Avg. frequency	3.19	3.68	3.50	1.75	2.53	3.31
	Avg. criticality	2.97	3.92	3.69	3.19	3.27	3.42
DCMA Springf., NJ	Avg. proficiency	2.94	3.34	3.47	2.79	3.11	3.04
	Avg. frequency	3.45	4.09	3.61	1.90	2.47	3.22
DCMA Springf., NJ	Avg. criticality	3.45	3.95	3.76	2.84	3.20	3.46
	Avg. proficiency	2.93	3.58	3.39	2.28	2.97	3.07
DCMA TC, MN	Avg. frequency	3.12	3.44	3.69	2.00	3.01	3.20
	Avg. criticality	3.33	3.71	3.93	3.11	3.41	3.28
DCMA TC, MN	Avg. proficiency	3.02	3.45	3.60	2.57	3.13	3.17

# Appendix C

## Differences between Criticality Ratings, by Career Level

Table 16: Average Employee and Supervisor Criticality Ratings by Career Level

Competency	Entry		Journey		Senior	
	<i>Emp</i>	<i>Sup</i>	<i>Emp</i>	<i>Sup</i>	<i>Emp</i>	<i>Sup</i>
Advanced Cost and/or Price Analysis	2.96	2.48	3.01	3.30	3.15	3.55
Approve Payment Requests	3.89	3.56	3.90	3.98	3.27	3.93
Close-Out Contracts	4.25	3.89	4.10	4.07	3.55	3.97
Contract Award	2.59	2.31	2.44	2.70	1.86	2.95
Contract Performance Management	3.31	2.77	3.24	3.47	3.24	3.74
E-Business and Automated Tools	3.28	2.90	3.21	3.28	2.63	3.22
Initiation of Work	3.90	3.42	3.71	3.79	3.35	3.88
Issue Changes and Modifications	3.92	3.52	3.74	3.79	2.87	3.90
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	2.69	1.97	3.08	3.20	3.49	3.88
Preparation and Negotiation	3.11	2.67	3.15	3.31	2.79	3.56
Terms and Conditions	3.22	2.47	3.10	3.09	2.70	3.40
Average Differences	.52		-.16		-.53	

Analysis of the final dataset shows that differences in perceptions of criticality between employees and supervisors grow in magnitude relative to career level. On average, Entry-level employees believe that their work is more critical than what their supervisors believe it to be. The opposite is true for the Senior-level employees. Senior professionals, on average, rate the competencies at least half a point lower on the criticality scale than do their supervisors. Journey-level employees rate the competencies similarly to their supervisors.

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# Appendix D

## Differences between Proficiency Ratings, by Career Level

Table 16: Average Employee and Supervisor Proficiency Ratings by Career Level

Competency	Entry		Journey		Senior	
	<i>Emp</i>	<i>Sup</i>	<i>Emp</i>	<i>Sup</i>	<i>Emp</i>	<i>Sup</i>
Advanced Cost and/or Price Analysis	1.46	1.09	2.70	2.85	3.66	3.64
Approve Payment Requests	1.99	1.79	3.51	3.36	4.10	4.20
Close-Out Contracts	2.52	1.94	3.71	3.46	4.00	4.16
Contract Award	1.61	1.19	2.60	2.72	3.09	3.73
Contract Performance Management	1.57	1.23	2.82	2.89	3.72	3.81
E-Business and Automated Tools	1.94	1.69	2.77	2.89	2.72	3.50
Initiation of Work	2.30	1.64	3.46	3.23	4.15	4.17
Issue Changes and Modifications	2.23	1.76	3.48	3.25	4.00	4.03
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	1.07	0.66	2.42	2.56	3.59	3.73
Preparation and Negotiation	1.72	1.28	2.94	2.91	3.85	3.93
Terms and Conditions	1.75	1.29	2.86	2.81	3.57	3.90
Average Differences	<b>0.41</b>		<b>-0.03</b>		<b>-0.12</b>	

Analysis of the final dataset shows that differences in perceptions of proficiency between employees and supervisors change in magnitude and direction relative to career level. On average, Entry-level employees believe that their work is more proficient than what their supervisors believe it to be. The opposite is true for the Senior-level employees. Senior professionals, on average, rate the competencies as lower on the proficiency scale than do their supervisors. Journey-level employees rate the competencies similarly to their supervisors.

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# Appendix E

## Proficiency Ratings by Career Level for Contract Administrator and Contract Specialist

Table 17: Average Proficiency Ratings by Career Level for Contract Administrator

Competency	Entry-Level	Journey-Level	Senior-level	DCMA Contracting Workforce (All Levels) <sup>†</sup>
Advanced Cost and/or Price Analysis	1.24	2.50	3.43	2.31
Approve Payment Requests	1.94	3.45	4.42	3.18
Close-Out Contracts	2.29	3.64	4.00	3.39
Contract Award	1.49	2.60	3.75	2.42
Contract Performance Management	1.42	2.77	3.86	2.55
E-Business and Automated Tools	1.82	2.80	2.33	2.61
Initiation of Work	2.04	3.39	4.29	3.14
Issue Changes and Modifications	2.04	3.39	3.80	3.13
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	0.83	2.22	3.99	2.02
Preparation and Negotiation	1.53	2.77	4.10	2.58
Terms and Conditions	1.57	2.81	3.75	2.60
<b>Grand Average of All Competencies</b>	<b>1.66</b>	<b>2.94</b>	<b>3.79</b>	<b>2.72</b>

*Green shading indicates above-average proficiency rating for this career level in this competency.*

<sup>†</sup> These averages are across all competencies, for the entire workforce.

Table 18: Average Proficiency Ratings by Career Level for Contract Specialist

Competency	Entry-Level	Journey-Level	Senior-level	DCMA Contracting Workforce (All Levels) <sup>†</sup>
Advanced Cost and/or Price Analysis	0.73	2.94	4.11	2.89
Approve Payment Requests	1.31	3.59	4.25	3.47
Close-Out Contracts	1.86	3.77	4.33	3.68
Contract Award	0.83	2.90	3.90	2.80
Contract Performance Management	1.15	3.04	3.94	3.00
E-Business and Automated Tools	1.88	3.03	3.43	2.97
Initiation of Work	1.39	3.55	4.32	3.46
Issue Changes and Modifications	1.50	3.64	4.43	3.54
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	0.58	2.69	4.00	2.66
Preparation and Negotiation	0.84	3.13	4.11	3.06
Terms and Conditions	1.07	3.08	4.00	2.98
<b>Grand Average of All Competencies</b>	<b>1.20</b>	<b>3.21</b>	<b>4.08</b>	<b>3.14</b>

*Green shading indicates above-average proficiency rating for this career level in this competency.*

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<sup>†</sup> These averages are across all competencies, for the entire workforce.

# Appendix F

## Proficiency Ratings by Career Level for Contract Price/Cost Analyst

Table 19: Average Proficiency Ratings by Career Level for Contract Price/Cost Analyst

Competency	Entry-Level	Journey-Level	Senior-level	DCMA Contracting Workforce (All Levels) <sup>†</sup>
Advanced Cost and/or Price Analysis	1.88	3.25	3.79	3.16
Approve Payment Requests	1.92	2.30	4.00	2.34
Close-Out Contracts	1.50	1.96	3.83	2.02
Contract Award	1.00	1.77	1.75	1.72
Contract Performance Management	1.50	2.54	3.84	2.52
E-Business and Automated Tools	1.85	2.49	3.33	2.46
Initiation of Work	1.22	1.93	4.00	1.95
Issue Changes and Modifications	1.25	2.01	4.50	2.06
Negotiate Forward Pricing Rate Agreements and Administer Cost Accounting Standards	1.77	2.77	3.34	2.75
Preparation and Negotiation	1.76	2.96	3.80	2.90
Terms and Conditions	1.50	2.40	3.17	2.34
<b>Grand Average of All Competencies</b>	<b>1.56</b>	<b>2.40</b>	<b>3.58</b>	<b>2.38</b>

*Green shading indicates above-average proficiency rating for this career level in this competency.*

<sup>†</sup> These averages are across all competencies, for the entire workforce.



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