FAI

2008 Acquisition Workforce Competencies Survey Results Report and Survey Content

For The Civilian Agency Federal Acquisition Workforce

Preparing Today's Workforce for Tomorrow's Challenges.

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Executive Summary

Background

The Federal Acquisition Institute (FAI) administered an Acquisition Workforce Competencies Survey (AWCS) from July through October 2008 for civilian agencies of the Executive Branch of the Federal government. The purpose of this survey was to assess the current supply of acquisition expertise in the Federal workforce. The online, voluntary, and anonymous survey sponsored by the Office of Management and Budget (OMB) Office of Federal Procurement Policy (OFPP), and the Chief Acquisition Officers Council (CAOC) is an expansion of the 2007 Contracting Workforce Competencies Survey (CWCS). The 2008 survey targeted members of the acquisition workforce as defined by the OFPP Policy Letter 05-01, Developing and Managing the Acquisition Workforce, which includes Contracting professionals and those performing contracting related work, acquisition Program and Project managers (P/PMs), and individuals designated as Contracting Officer Technical Representatives (COTRs).

Survey Objectives

The following objectives were set forth at the beginning of the survey process:

- Determine the available supply of acquisition expertise across the workforce as defined by OFPP policy letter 05-01
- Determine where resources should be focused to improve or sustain acquisition related skills
- Identify key workforce trends resulting from data collected
- Determine status of the Contracting workforce one year after the 2007 baseline
- Set baselines for the COTR and P/PM functions to be used for future comparisons

Survey Structure and Approach

Over 4,400 acquisition professionals from 26 civilian agencies responded to survey questions divided into four categories:

- Demographic characteristics
- Competencies and aligned skills[1] (current proficiency levels)
- Managerial and environmental questions (e.g., training needs)
- Professional certifications

The survey was a voluntary self-assessment targeting acquisition professionals and managers at all grade levels performing Contracting, P/PM, and COTR duties. This summary report provides a snapshot-in-time of the current status of the acquisition workforce and identifies areas in which strengths may be leveraged as well as opportunities for improving certain skills. This report is a community-wide aggregate summary against which agencies may analyze agency-specific results.

Respondent Demographics

A summary of key survey demographics follows:

- 1,994 Contracting professionals, 1,876 COTRs, and 564 P/PMs representing 26 Agencies (predominantly cabinet-level) responded to the survey, equating to approximately 22.6% (4,434 out of 19,623) of the civilian agency acquisition workforce.[2]

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[1] "Aligned skills" comprise the sub-parts of an overarching competency. For example, the P/PM competency Systems Engineering has two associated aligned skills: *Technical Management Process* and *Technical Process*. These two aligned skills are components of the overarching competency.

[2] Based on recent Acquisition Career Management Information System (ACMIS) estimates, FedScope data, Acquisition Career Managers (ACMs) and Agency level information.

- The respondent percentages by functional area are Contracting (19%), COTRs (22%), and P/PMs (65%). The total population of P/PMs and COTRs in the acquisition workforce fluctuates, and therefore is based on agency identification at a single point in time for purposes of this survey.
- 65% of respondents are over 45 years old, with the highest concentration in the 51 to 55 range (22%).
- 55% of respondents are currently eligible to retire.
- 48% of respondents reported 10 or more years of acquisition-specific experience.
- The profile of the population sample derived from voluntary and anonymous participation in the AWCS is generally reflective of the workforce-wide profile as presented in the FY2008 Annual Report on the Federal Acquisition Workforce (ARFAW). Some variance is expected due to the voluntary nature of the survey.

Available Supply: Role-Specific Findings[3]

Contracting Professionals

- The 1,994 Contracting respondents span multiple occupational series performing Contracting duties, with the largest representation at the GS-1102 (14% or 299 out of 1,994) and GS-1101 series (5% or 106 out of 1,994).
- Respondents reported that competency proficiency levels increased from the 2007 CWCS in all Contracting technical competencies, with the exception of *Performance-Based Acquisition*, which had no change in average proficiency.
- Nine of the 17 Contracting competencies demonstrated a 0.50 (or more) increase in proficiency when compared to 2007 CWCS data.
- High-scoring aligned skills are in areas of maximum impact (areas where respondents reported spending a predominance of work time).
- Contracting respondents identified the need for training and development in *Performance-Based Acquisition, Financial Management, Dispute Resolution*, and *Defining Requirements*.
- Based on current proficiency levels, *Negotiation* also remains a developmental need in 2008, which was corroborated by participants' qualitative responses.

COTRs

- The largest representation of the 1,876 COTRs that responded to the survey were at the GS-13 level (30% or 572 out of 1,876), followed closely by GS-12s (29% or 552 out of 1,876).
- Average competency proficiency levels for COTR competencies are above target levels established during the 2008 COTR Competency Validation Exercise.
- Qualitative responses expressed a desire for training and development in *Market Research, Defining Government Requirements in Commercial/Non-Commercial Term,* and *Negotiation*.

P/PMs

- The largest representation of the 564 P/PM survey respondents were at the mid to senior level grades, with (30% or 171 out of 564) at the GS-14 level followed by (27% or 156 out of 564) at the GS-15 level.
- Most P/PM respondents held a Masters degree as well as certifications such as FAC-P/PM, Commercial, or Agency-specific COTR certifications.
- Participant responses to qualitative questions also identified the need for training and development in the two top competency gap areas: *Contracting (3.04 average proficiency) and Business, Cost Estimating &*

[3] Where available, government-wide target proficiency levels were used to calculate competency level changes.

Financial Management (3.01 average proficiency), identified through quantitative analysis.

Additional Themes

In addition to role-specific findings, other important aggregate themes from the 2008 AWCS data emerged, such as:

- At an aggregate level, workforce proficiency in technical and general competencies is currently at expected levels.
- Respondents in each category identified as holding multiple certifications.
- Personnel across all three roles reported that their supervisors are supportive of training requests.
- On aggregate, employees indicated a desire for rotational assignments and mentoring/coaching. Managers reported barriers such as staffing shortages as an impediment to the effective deployment of such programs.
- Higher grade levels, years of service, education, and certifications were all positively correlated to higher proficiency levels across technical competencies, regardless of acquisition function.
- Significant proficiency may be at risk across AWCS respondents (and subsequently across the Acquisition Workforce) due to retirement in the coming 10 years.
    - Contracting (Advanced levels of skills in areas of): *Bid Evaluation, Contract Award, Managing Competition, Requirements Management, Solicitation of Orders, Strategic Planning*
    - COTR (Intermediate levels of skills in areas of): *Acquisition Planning, Defining Government Requirements in Commercial/Non-Commercial Terms, Effective Contract Management, Effective Pre Award Communication, Market Research, Negotiation, Performance Management, Technical Analysis of Proposals*
    - P/PM (Intermediate levels of skills in areas of): *Business, Cost Estimating & Financial Management, Contracting, Leadership/Professional, Life Cycle Logistics, Requirements Development and Management Processes, Systems Engineering, Test and Evaluation*

1. Introduction

Background

The 2008 Acquisition Workforce Competencies Survey (AWCS) is a self-report measurement tool created through a collaborative effort between the Federal Acquisition Institute (FAI), the Office of Management and Budget (OMB) Office of Federal Procurement Policy (OFPP), and the Chief Acquisition Officers Council (CAOC) with close participation from the Office of Personnel Management (OPM). The survey was open to all agencies across the government from July through October 2008 and asked respondents to voluntarily provide information in several categories: role-specific competencies and aligned skills, perceived training needs, manager and environment, and professional certifications. The 2008 AWCS included several enhancements such as the inclusion of Contracting Officer Technical Representatives (COTRs) and Program/Project Managers (P/PMs), consistent with OFPP policy letter 05-01's expanded definition of the acquisition workforce. As in 2007, Contracting professionals were also assessed.

Survey Objectives

- Determine the available supply of acquisition expertise across the workforce as defined by OFPP policy letter 05-01
- Determine where resources should be focused to improve or sustain acquisition related skills
- Identify key workforce trends resulting from data collected
- Determine status of the Contracting workforce one year after the 2007 baseline
- Set baselines for the COTR and P/PM functions to be used for future comparisons

Target Audience

- Personnel in the GS-1102 (Contract Specialist) series
- Personnel, regardless of series, performing Contracting duties and those with contracting officer warrant authority
- Personnel serving in a Contracting Officer Technical Representative (COTR) or Program/Project Manger (P/PM) role
- Military personnel, outside of DoD, performing the duties of these positions, regardless of series (as defined by OFPP Policy Letter 05-01)

Methods and Approach

Building on the foundation set by the initial 2007 Contracting Workforce Competencies Survey (CWCS), the online survey was a voluntary self-assessment, although Agencies had the option to establish a mandatory policy. FAI provided the tools Agencies needed to communicate and manage the survey effort at their respective organizations. Additionally, FAI delivered training in November 2008 designed to build Agency capability to mine and analyze their own AWCS data to shape Agency-specific human capital planning and programs. Training materials remain available at www.fai.gov.

This report, a snapshot-in-time of the "health" of the acquisition workforce, provides suggestions for developmental areas that may be of benefit to the acquisition workforce in order to effectively continue the important work they do in support of Agency missions. The report is written from a strategic perspective, in that it complements Agency-specific analysis by presenting aggregate findings for community-wide consideration. The intent is to assess government-wide progress and provide data that strategically inform stakeholder decisions to enact, shape, facilitate and/or execute acquisition workforce policies, strategies, and programs.

2. Survey Demographic Data

This section provides an overview of survey respondent characteristics that should be considered as context for the competency data presented later in the report. This section includes general information on the respondent population ranging from grade and age, to more detailed information such as acquisition function, time in acquisition service, and retirement eligibility/estimated retirement ranges.

A total of 4,434 acquisition professionals representing 26 Agencies participated in the 2008 AWCS. This group comprised of 1,994 contracting professionals, 1,876 COTRs, and 564 P/PMs, estimated to be approximately 22.6% (4,434 out of 19,623) of the total acquisition workforce population.[4] Respondents represented over 100 distinct job series, but are most heavily represented by GS-0343 (291 respondents – Management and Program Analysis), GS-1102 (299 respondents– Contract Specialist), and GS-1101 (106 respondents – General Business and Industry). The following table shows the general profile of the typical AWCS respondent.

Table 2-0-1. 2008 AWCS Average Respondent Profile

AWCS Average Respondent Profile	
According to the AWCS Survey Data	**According to ARFAW Data[5]**
Is age 51 to 55	Is age 47
Is a Female	Is a Female
Is a Grade 13	Is a Grade 11
Is not in a supervisory role	Is not in a supervisory role
Holds a Bachelor's degree	Holds a Bachelor's degree
Is eligible to retire in 7 to 10 years	Is eligible to retire in 7 to 10 years
Additional AWCS Data:	
Is in the Contracting function	
Has 21 or more years of Federal service	
Has 11 to 20 yrs of Acquisition service	
Holds some type of profession certification	

2.1 Aggregate Survey Demographics

The following table summarizes aggregate survey demographic characteristics that will be described in further detail in the remainder of this section.

Table 2-1-1. Survey Demographics: Key Characteristics Summary Table

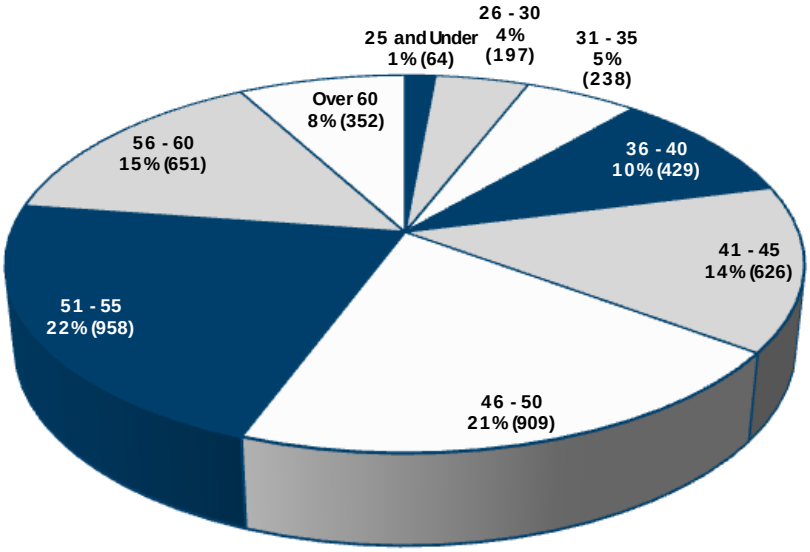
Survey Demographics: Key Characteristics Summary Table
Key Characteristics:
• 65% of the respondent pool is 46 years old or greater, with the highest concentration of these respondents falling in the 51 to 55 age range (22%).
• 55% of survey respondents are currently eligible to retire, with many of those planning to retire in the coming 7 to 10 years.
• Survey respondents have on average 10 or more years of acquisition-specific experience.

[4] Estimated population totals were derived from the Acquisition Career Management Information System (ACMIS), Fed Scope data, ACM qualitative assessment and other related sources.
[5] FY 2008 Annual Report on the Federal Acquisition Workforce (ARFAW).

2.2 Age

65% of the AWCS respondents are 46 years old or greater, with the highest concentration of these respondents falling in the 51 to 55 age range (22%).

Figure 2-2-1. 2008 AWCS Respondent Age Ranges



2.3 Retirement

In the survey pool, over 55% of the survey respondents are eligible for retirement and 47% plan on retiring in the coming 7 to 10 year time frame.

Table 2-3-1. 2008 AWCS Retirement Eligible and Retirement Estimate

Table 2-3-1.1 2008 AWCS Respondent Retirement Eligibility

	< 1 Year	1 – 3 Years	4 – 6 Years	7 – 10 Years	11 – 20 Years	21+ Years	Undecided	Total
FS-1	2	2	-	1	-	-	1	**6**
FS-2	3	1	1	1	3	-	-	**9**
FS-3	2	1	2	1	6	1	-	**13**
FS-4	-	-	1	3	2	1	1	**8**
GS-5	-	2	2	3	5	6	4	**22**
GS-7	6	4	9	7	23	40	6	**95**
GS-9	15	12	28	28	63	70	12	**228**
GS-11	18	23	40	40	68	89	11	**289**
GS-12	86	69	95	121	194	166	43	**774**
GS-13	198	131	166	206	297	180	48	**1,226**
GS-14	159	131	174	200	281	96	40	**1,081**
GS-15	121	92	81	106	129	27	25	**581**
Other	7	17	17	8	11	13	7	**80**
SES	5	2	3	6	3	1	-	**20**
SFS	-	2	-	-	-	-	-	**2**
Total	**622**	**489**	**619**	**731**	**1,085**	**690**	**198**	**4,434**

Table 2-3-1.2 2008 AWCS Respondent Retirement Estimate

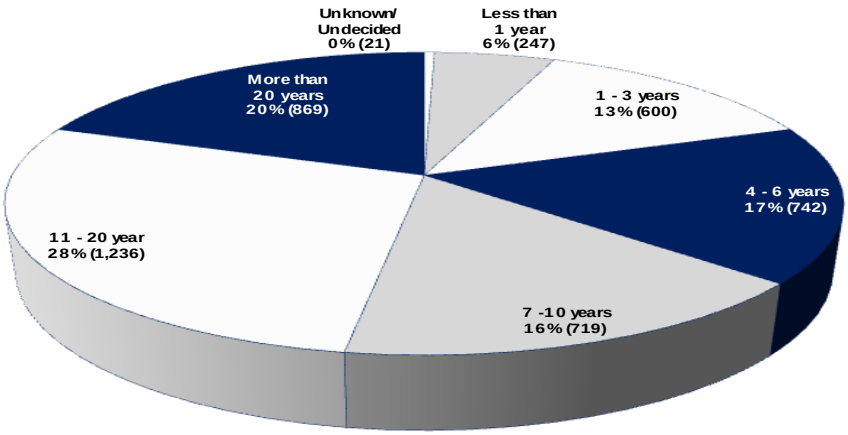
	< 1 Year	1 – 3 Years	4 – 6 Years	7 – 10 Years	11 – 20 Years	21+ Years	Undecided	Total
FS-1	-	2	-	3	-	-	1	**6**
FS-2	1	-	1	3	3	-	1	**9**
FS-3	-	2	2	2	3	3	1	**13**
FS-4	-	-	-	5	1	1	1	**8**
GS-5	-	2	2	1	6	6	5	**22**
GS-7	3	3	7	5	28	41	8	**95**
GS-9	3	13	21	28	61	70	32	**228**
GS-11	1	20	35	42	73	82	36	**289**
GS-12	19	65	110	126	189	162	103	**774**
GS-13	34	138	181	224	303	176	170	**1,226**
GS-14	32	142	172	208	289	103	135	**1,081**
GS-15	24	100	108	131	132	36	50	**581**
Other	1	8	16	14	15	13	13	**80**
SES	1	4	3	6	3	1	2	**20**
SFS	-	1	-	1	-	-	-	**2**
Total	**119**	**500**	**658**	**799**	**1,106**	**694**	**558**	**4,434**

The tables above show that for the 7 to 10 year retirement eligibility time frame, 731 respondents indicated that they will be eligible to retire (Table 2.3-1.1) and 799 respondents indicated that they plan on retiring during that period (Table 2.3-1.2). The individuals planning on retiring (Retirement Estimate) may comprise the Retirement Eligible sample in addition to others from separate groups (for example, 4 to 6 years).

2.4 Years of Acquisition Service

As depicted in the following Table, AWCS respondents are largely composed of professionals who have over 10 years of experience across all functional areas, representing 28% of the total respondent pool.

Figure 2-4-1. 2008 AWCS Acquisition Years of Service Distribution



3. Survey Findings by Acquisition Role

This section presents the key results and outcomes drawn from analysis of the AWCS data. The sub-sections that follow this introductory discussion are organized as follows:

Demographics

The beginning of each subsection below reviews the survey demographics specific to each acquisition role (Contracting, P/PM and COTR).

Competencies and Aligned Skills

Following the demographics summary, the current workforce supply (as it pertains to competencies and aligned skills) is described. AWCS survey respondents provided a self-assessment of their current levels of proficiency in a set of general business and technical competencies for their given function. General business competencies are cross-functional in nature and are needed by most members of the workforce regardless of the function they perform. Technical competencies address job-specific acquisition functions. Both general business competencies and technical competencies were developed using a rigorous method of job analysis, focus group input, critical incident review, and subject matter expert feedback. This information is located at http://www.fai.gov/acm/competencies.asp.

The aligned skills data analysis helped provide a deeper layer of insight into developmental needs than what is sometimes apparent at the broader, overarching competency level. As a point of reference, the proficiency self-rating scale respondents used to evaluate both competencies and aligned skills is outlined as follows:

0. **None** – I do not possess the proficiency in the competency.
1. **Basic** – I am capable of handling the simplest of assignments involving this competency, but need significant assistance beyond the easiest solutions.
2. **Foundational** – I am capable of handling some assignments involving this competency, but will need assistance beyond routine situations.
3. **Intermediate** – I am capable of handling many day-to-day assignments involving this competency, but may seek assistance in difficult or new situations.
4. **Advanced** – I am capable of handling most day-to-day assignments involving this competency, though may seek expert assistance with particularly difficult or unique situations.
5. **Expert** – I am capable of handling all assignments involving this competency and may serve as a role model and/or coach to others.

Respondents were also asked to report the amount of time spent using each of the aligned skills. The rating scale used to assess time spent on each aligned skill for the skill self-assessment follows:

0. **None** – I do not spend any time on this job activity in my normal work activities.
1. **Minimal** – I spend very little time on this job activity in my normal work activities.
2. **Moderate** – I spend a moderate amount of time on this activity in my normal work activities.
3. **Extensive** – I spend most of my time on this job activity in my normal work activities.

Where available, FAI used government-wide benchmark proficiency levels in analyses.

Certifications

Respondents were asked to report what internal and external acquisition related certifications they held.

Training and Development

Respondents were also asked to select up to five competencies from their respective list of general business and technical competencies for which they felt additional training would be a benefit at both the individual and organizational level. The organization/agency was defined as inclusive of other acquisition professionals in the respondent's office or Agency as well as other acquisition workforce members.

Managerial and Environmental Considerations

Respondents were asked to rate their level of agreement with 11 managerial and 13 environmental statements using a 1 to 5 rating scale. If respondents indicated their role as that of a supervisor in the demographic section, they were also asked to complete a set of managerial questions. The supervisor group included employees with job titles of Section Chief, Branch Chief, or Division Chief, who are responsible for the hiring, discipline, performance management, and termination of employees under their direct control. The agreement rating scale used for the environmental and managerial statements follows:

1. **Strongly Disagree**
2. **Disagree**
3. **Neither Agree nor Disagree**
4. **Agree**
5. **Strongly Agree**

3.1 Key Findings – Contracting Professionals

The information in this section represents a snapshot in time of the Contracting professionals that responded to the 2008 AWCS.[6]

Demographics

Table 3-1-1. 2008 Contracting Respondents Profile

Profile of the average survey respondent of the Contracting workforce:	
According to the AWCS Survey Data	**According to ARFAW Data**
Is age 51 to 55	Is age 47
Holds a Bachelor's degree	Holds a Bachelor's degree
Is Contracting Specialists, General Business Industry Purchasing, or Management and Program Analysis	Is Contracting Specialists, General Business Industry Purchasing, or Procurement Clerical and Assistance Professionals
Is a Female	Is a Female
Is eligible to retire in 7 to 10 years	Is eligible to retire in 7 to 10 years
Is a Grade 12 or 13	Is a Grade 11
Additional AWCS Data:	
Has 21 or more years of Federal service	

[6] Comparisons can be drawn between the 2007 CWCS baseline and current 2008 AWCS data, although it is important to acknowledge that 2008 AWCS respondents may not necessarily be the same as those who participated in the 2007 CWCS in addition to the voluntary self-assessment survey method. Rather than drawing concrete inferences, this information can be used as a general indicator for strategic planning.

Profile of the average survey respondent of the Contracting workforce:	
According to the AWCS Survey Data	**According to ARFAW Data**
Has 11 to 20 yrs of Acquisition service	
Holds some type of professional certification	

The 1,994 Contracting respondents span multiple occupational series performing Contracting duties, with the largest representation from the GS-1102 (14% or 299 out of 1,994) and GS-1101 series (5 % or 106 out of 1,994).

Competencies and Aligned Skills

Reported proficiency levels increased in all Contracting technical competencies with the exception of *Performance-Based Acquisition*, which remained static. Nine of 17 Contracting competencies showed an increase of 0.50 or more when compared to 2007 AWCS data. In some areas, as shown in the table below, proficiency levels exceed 4.00. Also, the highest scoring aligned skills are in areas where respondents reported spending the most work time.

Table 3-1-1.1 2008 AWCS vs. 2007 CWCS Technical Competencies Average Proficiency[7]

Technical Competencies	2008 AWCS Average Contracting Proficiency	2007 CWCS Average Contracting Proficiency	Delta (Change from 2007)
Bid Evaluation	4.00	3.49	+0.51
Contract Award	4.02	3.44	+0.58
Defining Contractual Relationships	3.85	3.52	+0.33
Defining Requirements	3.83	3.48	+0.35
Dispute Resolution and Termination	3.63	3.09	+0.54
Financial Management	3.67	3.27	+0.40
Managing Competition	3.98	3.45	+0.53
Market Research	4.04	3.25	+0.79
Negotiation	3.80	3.40	+0.40
Performance-Based Acquisition	3.48	3.48	-
Performance Management	3.86	3.54	+0.32
Project Management	3.97	3.40	+0.57
Proposal Analysis and Evaluation	3.87	3.66	+0.21
Requirements Management	4.10	3.05	+1.05
Small Business and Preference Program Participation	3.86	3.41	+0.45
Solicitation of Orders	4.01	3.50	+0.51
Strategic Planning	4.05	3.42	+0.63

Table 3-1-1.2. 2008 Contracting Technical Competencies with Average Proficiency Levels

Technical Competencies	Average Proficiency Contracting	Average Proficiency GS-1102s
Bid Evaluation	4.00	4.14
Contract Award	4.02	4.18
Defining Contractual Relationships	3.85	4.00
Defining Requirements	3.83	3.93
Dispute Resolution and Termination	3.63	3.78
Financial Management	3.67	3.77
Managing Competition	3.98	4.17
Market Research	4.04	4.10
Negotiation	3.80	3.95

[7] Target level proficiencies were not established during the AWCS report period so 2007 CWCS data was used as a proxy delta measure.

Technical Competencies	Average Proficiency Contracting	Average Proficiency GS-1102s
Performance-Based Acquisition	3.48	3.62
Performance Management	3.86	4.03
Project Management	3.97	4.12
Proposal Analysis and Evaluation	3.87	4.06
Requirements Management	4.10	4.16
Small Business and Preference Program Participation	3.86	4.01
Solicitation of Orders	4.01	4.16
Strategic Planning	4.05	4.20

Table 3-1-1.3. 2008 Contracting General Business Competencies with Average Proficiency Levels

General Business Competencies	Average Proficiency Contracting	Average Proficiency GS-1102s
Arithmetic	4.33	4.27
Attention to Detail	4.38	4.28
Contracting/Procurement	3.95	4.12
Creative Thinking	3.95	3.99
Customer Service	4.37	4.40
Decision-Making	4.19	4.25
Flexibility	4.27	4.24
Influencing/Negotiating	4.02	4.03
Information Management	4.11	4.13
Integrity/Honesty	4.68	4.67
Interpersonal Skills	4.40	4.38
Learning	4.24	4.30
Math Reasoning	3.89	3.91
Memory	4.1	4.11
Oral Communications	4.12	4.18
Planning and Evaluating	4.21	4.21
Problem Solving	4.24	4.29
Reading	4.32	4.39
Reasoning	4.25	4.25
Self-Esteem	4.41	4.41
Self-Management/Initiative	4.44	4.43
Stress Tolerance	4.17	4.15
Teamwork	4.39	4.37
Writing	4.33	4.36

Table 3-1-1.4. 2008 Contracting Technical Competencies Overall and GS-1102s Average Proficiency

Technical Competencies	Average Proficiency Contracting	% with intermediate or greater proficiency levels Contracting	Average Proficiency GS-1102s	% with intermediate or greater proficiency levels GS-1102s
Bid Evaluation	4.00	85.2%	4.14	89.2%
Contract Award	4.02	86.0%	4.18	89.2%
Defining Contractual Relationships	3.85	84.1%	4.00	88.0%
Defining Requirements	3.83	85.9%	3.93	88.8%
Dispute Resolution and Termination	3.63	78.9%	3.78	82.6%
Financial Management	3.67	81.4%	3.77	84.3%
Managing Competition	3.98	87.7%	4.17	90.0%
Market Research	4.04	91.1%	4.10	92.5%

Technical Competencies	Average Proficiency Contracting	% with intermediate or greater proficiency levels Contracting	Average Proficiency GS-1102s	% with intermediate or greater proficiency levels GS-1102s
Negotiation	3.80	81.0%	3.95	85.5%
Performance-Based Acquisition	3.48	76.8%	3.62	81.8%
Performance Management	3.86	84.1%	4.03	86.3%
Project Management	3.97	90.1%	4.12	92.9%
Proposal Analysis and Evaluation	3.87	84.1%	4.06	89.6%
Requirements Management	4.10	88.4%	4.16	89.6%
Small Business and Preference Program Participation	3.86	85.1%	4.01	87.6%
Solicitation of Orders	4.01	86.3%	4.16	90.0%
Strategic Planning	4.05	91.4%	4.20	93.3%

Table 3-1-5. 2008 Contracting General Business Competencies Overall and GS-1102s Average Proficiency

General Business Competencies	Average Proficiency Contracting	% with intermediate or greater proficiency levels Contracting	Average Proficiency GS-1102s	% with intermediate or greater proficiency levels GS-1102s
Arithmetic	4.33	95.3%	4.27	93.8%
Attention to Detail	4.38	97.5%	4.28	95.4%
Contracting/Procurement	3.95	88.5%	4.12	91.3%
Creative Thinking	3.95	91.6%	3.99	92.9%
Customer Service	4.37	96.6%	4.40	97.9%
Decision-Making	4.19	95.5%	4.25	95.0%
Flexibility	4.27	96.8%	4.24	95.0%
Influencing/Negotiating	4.02	92.1%	4.03	92.1%
Information Management	4.11	93.8%	4.13	94.6%
Integrity/Honesty	4.68	98.5%	4.67	98.3%
Interpersonal Skills	4.40	97.4%	4.38	95.4%
Learning	4.24	96.6%	4.30	97.9%
Math Reasoning	3.89	89.3%	3.91	88.8%
Memory	4.10	95.5%	4.11	95.8%
Oral Communications	4.12	94.8%	4.18	95.8%
Planning and Evaluating	4.21	96.0%	4.21	95.4%
Problem Solving	4.24	96.0%	4.29	96.6%
Reading	4.32	96.6%	4.39	97.9%
Reasoning	4.25	96.4%	4.25	97.1%
Self-Esteem	4.41	96.8%	4.41	96.2%
Self-Management/Initiative	4.44	97.8%	4.43	96.6%
Stress Tolerance	4.17	95.7%	4.15	95.0%
Teamwork	4.39	97.3%	4.37	96.6%
Writing	4.33	96.6%	4.36	96.6%

Table 3-1-1.6. 2008 Contracting Aligned Skills Overall and GS-1102s Average Proficiency

Aligned Skills	Average Proficiency Contracting	% with intermediate or greater proficiency levels Contracting	Average Proficiency GS-1102s	% with intermediate or greater proficiency levels GS-1102s
Contract Modification and Adjustment	3.78	84.6%	3.85	86.1%
Preparing and Issuing Awards	3.71	82.5%	3.86	86.7%
Task and Delivery Order Contracting	3.69	82.1%	3.86	84.4%
Solicitation Preparation	3.65	82.0%	3.84	85.9%

Aligned Skills	Average Proficiency Contracting	% with intermediate or greater proficiency levels Contracting	Average Proficiency GS-1102s	% with intermediate or greater proficiency levels GS-1102s
Managing the Quotations and Proposal	3.61	81.2%	3.75	82.4%
Determining Method of Acquisition	3.60	81.8%	3.80	86.5%
Reviewing Invoices	3.60	80.8%	3.63	82.5%
Market Research	3.59	83.8%	3.81	89.1%
Entering Procurement Related Data	3.57	79.7%	3.63	82.1%
Requirements Analysis	3.55	81.6%	3.67	85.8%
Publicizing Proposal Acquisitions	3.54	79.5%	3.78	85.7%
Strategic Planning	3.54	81.6%	3.69	84.5%
Amending/Canceling Solicitations	3.50	78.2%	3.69	83.0%
Contracting with Appropriate Government wide Acquisition System	3.50	81.4%	3.61	83.0%
Contract Administration Planning and Orientations	3.46	77.9%	3.63	80.8%
Selecting Offer Evaluation Factors	3.45	79.1%	3.71	82.5%
Socioeconomic Requirements	3.43	76.8%	3.70	82.2%
Determining Responsibility/Capability	3.41	76.5%	3.63	81.7%
Pricing Information from Offerors	3.40	77.1%	3.59	80.2%
Evaluating Non-Price Factors	3.39	76.7%	3.54	79.9%
Managing Competition	3.39	77.7%	3.64	83.3%
Recurring Requirements	3.39	77.7%	3.66	83.0%
Conducting Proposal Communications	3.37	75.8%	3.52	78.1%
Performance Management	3.35	75.4%	3.52	79.2%
Contract Closeout	3.33	74.7%	3.36	75.3%
Conducting Discussions/Negotiations	3.29	71.9%	3.45	75.4%
Project Management	3.29	76.1%	3.46	78.1%
Establishing the Competitive Range	3.28	71.9%	3.53	77.0%
Commercial/Simplified Acquisition Remedies	3.26	73.6%	3.45	78.3%
Negotiation Strategy	3.25	70.6%	3.44	77.6%
Pricing Arrangements	3.23	73.3%	3.38	78.1%
Conducting Debriefings	3.22	71.9%	3.49	77.5%
Responding to Inquiries and FOIA Requests	3.22	71.7%	3.39	75.9%
Performing Analysis for Negotiated Acquisitions	3.20	69.8%	3.34	71.6%
Documenting the Source Selection Plan	3.19	70.8%	3.43	75.8%
Performing Price and Cost Analysis (Negotiated Acquisition)	3.18	68.9%	3.32	70.3%
Pre-Quote/Pre-Bid/Pre-Proposal Conferences	3.16	69.0%	3.48	77.0%
Administer Special Terms and Conditions	3.15	70.4%	3.37	75.7%
Performance Metrics	3.13	70.3%	3.25	71.7%
Resolving Disputes	3.01	65.7%	3.24	69.9%
Costs, Pricing, and Fees	2.99	66.5%	3.13	69.5%
Noncommercial Acquisition Remedies	2.97	65.9%	3.21	73.1%
Terminating Contracts	2.97	65.6%	3.16	71.9%
Methods of Payment	2.96	65.3%	3.09	66.5%
Performance-Based Acquisition	2.94	66.5%	3.13	70.1%
Administering Financing Terms	2.90	64.2%	2.98	66.0%
Subcontracting Requirements	2.88	64.3%	3.15	70.1%
Managing the Bidding Process	2.85	61.6%	3.20	68.0%
Conducting Oral Solicitations/Proposals	2.82	63.4%	2.93	66.2%
Identifying Fraud	2.79	60.6%	3.06	68.9%
Using Audit Information	2.77	59.6%	2.92	61.6%
Handling Protests	2.74	60.1%	3.01	67.7%
Unpriced Contracts	2.68	58.8%	2.83	59.6%

Aligned Skills	Average Proficiency Contracting	% with intermediate or greater proficiency levels Contracting	Average Proficiency GS-1102s	% with intermediate or greater proficiency levels GS-1102s
Competitive Sourcing Regulations	2.45	52.9%	2.72	60.1%
Environmental, Energy, and Water Efficiency	2.43	52.6%	2.63	57.5%
Evaluating Accounting and Estimating Systems	2.41	51.6%	2.62	55.9%
Contract Financing	2.39	50.5%	2.63	54.8%
Collecting Contractor Debts	2.38	50.2%	2.63	56.3%
Competitive Sourcing	2.26	47.1%	2.43	54.0%

Table 3-1-1.7. 2008 Contracting Aligned Skills Average Time Spent Overall

Aligned Skills	Average Time Spent Contracting	% of workforce spending Moderate and Extensive Time Contracting
Preparing and Issuing Awards	1.79	64.9%
Contract Modification and Adjustment	1.77	62.8%
Solicitation Preparation	1.75	63.1%
Task and Delivery Order Contracting	1.73	60.80%
Entering Procurement Related Data	1.72	59.6%
Requirements Analysis	1.66	58.1%
Determining Method of Acquisition	1.65	58.01%
Market Research	1.64	56.5%
Strategic Planning	1.62	57.8%
Contracting with Appropriate Government wide Acquisition System	1.61	54.5%
Managing the Quotations and Proposal	1.55	54.8%
Project Management	1.54	53.2%
Selecting Offer Evaluation Factors	1.52	51.7%
Socioeconomic Requirements	1.51	49.6%
Managing Competition	1.50	51.9%
Reviewing Invoices	1.50	48.7%
Pricing Information from Offerors	1.47	48.0%
Contract Administration Planning and Orientations	1.46	48.8%
Evaluating Non-Price Factors	1.46	49.8%
Publicizing Proposal Acquisitions	1.45	47.1%
Determining Responsibility/Capability	1.44	46.5%
Conducting Proposal Communications	1.43	47.4%
Recurring Requirements	1.42	45.9%
Performance Management	1.38	44.9%
Pricing Arrangements	1.35	42.3%
Conducting Discussions/Negotiations	1.34	44.4%
Contract Closeout	1.34	41.1%
Performing Analysis for Negotiated Acquisitions	1.33	43.8%
Performing Price and Cost Analysis (Negotiated Acquisition)	1.33	43.7%
Negotiation Strategy	1.31	42.81%
Documenting the Source Selection Plan	1.27	39.5%
Establishing the Competitive Range	1.26	40.3%
Amending/Canceling Solicitations	1.24	35.9%
Commercial/Simplified Acquisition Remedies	1.23	37.3%
Responding to Inquiries and FOIA Requests	1.23	35.4%
Performance Metrics	1.22	37.1%
Performance Based Acquisition (PBA)	1.21	36.0%

Aligned Skills	Average Time Spent Contracting	% of workforce spending Moderate and Extensive Time Contracting
Conducting Debriefings	1.16	34.7%
Administer Special Terms and Conditions	1.15	32.3%
Costs, Pricing, and Fees	1.08	32.0%
Methods of Payment	1.06	27.9%
Subcontracting Requirements	1.06	29.7%
Pre-Quote/Pre-Bid/Pre-Proposal Conferences	1.04	28.0%
Administering Financing Terms	1.03	30.4%
Noncommercial Acquisition Remedies	1.03	29.5%
Using Audit Information	0.97	27.0%
Resolving Disputes	0.96	24.3%
Competitive Sourcing Regulations	0.89	24.3%
Conducting Oral Solicitations/Proposals	0.89	23.3%
Terminating Contracts	0.88	18.8%
Environmental, Energy, and Water Efficiency	0.87	20.6%
Handling Protests	0.82	18.8%
Identifying Fraud	0.82	17.9%
Managing the Bidding Process	0.81	23.1%
Unpriced Contracts	0.80	20.6%
Competitive Sourcing	0.77	23.0%
Evaluating Accounting and Estimating Systems	0.77	19.7%
Contract Financing	0.67	14.1%
Collecting Contractor Debts	0.59	12.3%

Table 3-1-1.8. 2008 Contracting Aligned Skills Average Time by GS-1102s

Aligned Skills	Average Time Spent Contracting	Average Time Spent GS- 1102s	% of workforce spending Moderate and Extensive Time GS-1102s
Preparing and Issuing Awards	1.79	1.78	63.7%
Contract Modification and Adjustment	1.77	1.70	60.9%
Solicitation Preparation	1.75	1.80	67.5%
Task and Delivery Order Contracting	1.73	1.81	62.6%
Entering Procurement Related Data	1.72	1.67	56.3%
Requirements Analysis	1.66	1.72	59.5%
Determining Method of Acquisition	1.65	1.80	63.6%
Market Research	1.64	1.75	57.3%
Strategic Planning	1.62	1.67	58.0%
Contracting with Appropriate Government wide Acquisition System	1.61	1.67	56.4%
Managing the Quotations and Proposal	1.55	1.65	60.2%
Project Management	1.54	1.57	52.9%
Selecting Offer Evaluation Factors	1.52	1.67	57.1%
Socioeconomic Requirements	1.51	1.70	56.8%
Managing Competition	1.50	1.66	55.9%
Reviewing Invoices	1.50	1.52	53.2%
Pricing Information from Offerors	1.47	1.58	50.7%
Contract Administration Planning and Orientations	1.46	1.52	50.0%
Evaluating Non-Price Factors	1.46	1.57	54.2%
Publicizing Proposal Acquisitions	1.45	1.57	50.9%
Determining Responsibility/Capability	1.44	1.55	47.5%
Conducting Proposal Communications	1.43	1.43	47.2%

Aligned Skills	Average Time Spent Contracting	Average Time Spent GS- 1102s	% of workforce spending Moderate and Extensive Time GS-1102s
Recurring Requirements	1.42	1.55	50.0%
Performance Management	1.38	1.42	46.9%
Pricing Arrangements	1.35	1.38	41.3%
Conducting Discussions/Negotiations	1.34	1.42	46.5%
Contract Closeout	1.34	1.21	33.0%
Performing Analysis for Negotiated Acquisitions	1.33	1.35	44.3%
Performing Price and Cost Analysis (Negotiated Acquisition)	1.33	1.34	42.4%
Negotiation Strategy	1.31	1.38	44.2%
Documenting the Source Selection Plan	1.27	1.41	43.7%
Establishing the Competitive Range	1.26	1.44	47.9%
Amending/Canceling Solicitations	1.24	1.33	39.2%
Commercial/Simplified Acquisition Remedies	1.23	1.28	40.5%
Responding to Inquiries and FOIA Requests	1.23	1.27	35.3%
Performance Metrics	1.22	1.23	37.5%
Performance-Based Acquisition (PBA)	1.21	1.36	41.0%
Conducting Debriefings	1.16	1.28	35.8%
Administer Special Terms and Conditions	1.15	1.26	34.6%
Costs, Pricing, and Fees	1.08	1.13	35.5%
Methods of Payment	1.06	1.04	26.8%
Subcontracting Requirements	1.06	1.16	33.6%
Pre-Quote/Pre-Bid/Pre-Proposal Conferences	1.04	1.15	32.3%
Administering Financing Terms	1.03	1.08	33.5%
Noncommercial Acquisition Remedies	1.03	1.11	30.0%
Using Audit Information	0.97	0.99	26.9%
Resolving Disputes	0.96	1.06	26.2%
Competitive Sourcing Regulations	0.89	0.98	25.2%
Conducting Oral Solicitations/Proposals	0.89	0.81	21.0%
Terminating Contracts	0.88	0.96	20.7%
Environmental, Energy, and Water Efficiency	0.87	0.91	25.0%
Handling Protests	0.82	0.96	26.0%
Identifying Fraud	0.82	0.96	22.6%
Managing the Bidding Process	0.81	0.92	28.4%
Unpriced Contracts	0.8	0.85	21.1%
Competitive Sourcing	0.77	0.81	23.9%
Evaluating Accounting and Estimating Systems	0.77	0.86	23.7%
Contract Financing	0.67	0.73	12.9%
Collecting Contractor Debts	0.59	0.69	15.5%

Competencies Subject to Impact Due to Retirement

Table 3-1-1.9. 2008 Contracting Overall Technical Competencies Average Proficiency Impacted by Retirement Estimate

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater) Contracting	Retiring in 4-6 Yrs (% intermediate or greater) Contracting	Retiring in 7-10 yrs (% intermediate or greater) Contracting	Overall (% intermediate or greater) Contracting
Bid Evaluation	11.7%	15.7%	17.7%	85.2%
Contract Award	11.7%	15.3%	17.6%	86.0%
Defining Contractual Relationships	11.7%	15.5%	17.8%	84.2%
Defining Requirements	11.4%	15.6%	17.7%	86.0%

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater) Contracting	Retiring in 4-6 Yrs (% intermediate or greater) Contracting	Retiring in 7-10 yrs (% intermediate or greater) Contracting	Overall (% intermediate or greater) Contracting
Dispute Resolution and Termination	11.7%	15.9%	18.2%	78.9%
Financial Management	11.8%	15.5%	17.8%	81.1%
Managing Competition	11.6%	15.3%	17.6%	87.8%
Market Research	11.1%	14.9%	17.3%	91.1%
Negotiation	12.0%	15.5%	17.6%	81.1%
Performance-Based Acquisition	11.9%	16.1%	17.9%	76.9%
Performance Management	11.5%	15.9%	17.7%	84.1%
Project Management	11.1%	15.0%	17.7%	90.2%
Proposal Analysis and Evaluation	11.6%	15.4%	17.6%	84.1%
Requirements Management	11.4%	15.3%	17.6%	88.5%
Small Business and Preference Program Participation	11.7%	15.6%	17.5%	85.1%
Solicitation of Orders	11.6%	15.4%	17.6%	86.3%
Strategic Planning	11.1%	15.2%	17.7%	91.5%

Table 3-1-1.10. 2008 Contracting Overall General Business Competencies Average Proficiency Impacted by Retirement Estimate

General Business Competencies	Retiring in the next 3 yrs (% intermediate or greater)	Retiring in 4-6 Yrs (% intermediate or greater)	Retiring in 7-10 yrs (% intermediate or greater)	Overall (% intermediate or greater)
Arithmetic	10.7%	14.5%	16.7%	95.3%
Attention to Detail	10.7%	14.7%	16.9%	97.5%
Contracting/Procurement	11.4%	15.4%	17.9%	88.5%
Creative Thinking	11.0%	14.7%	17.3%	91.6%
Customer Service	10.7%	14.8%	16.9%	96.7%
Decision-Making	10.9%	15.0%	16.9%	95.6%
Flexibility	10.7%	14.9%	16.9%	96.8%
Influencing/Negotiating	11.2%	15.1%	17.3%	92.1%
Information Management	10.8%	14.9%	17.3%	93.8%
Integrity/Honesty	10.7%	14.7%	16.8%	98.5%
Interpersonal Skills	10.7%	14.7%	17.0%	97.4%
Learning	10.8%	14.8%	16.8%	96.6%
Math Reasoning	10.9%	14.8%	17.4%	89.3%
Memory	10.8%	14.5%	17.1%	95.5%
Oral Communications	10.7%	14.5%	17.1%	94.8%
Planning and Evaluating	11.0%	14.8%	17.0%	96.0%
Problem Solving	11.0%	14.8%	17.1%	96.0%
Reading	10.9%	14.7%	16.9%	96.6%
Reasoning	10.9%	14.6%	17.0%	96.4%
Self-Esteem	10.8%	14.6%	17.0%	96.8%
Self-Management/Initiative	10.7%	14.7%	16.9%	97.8%
Stress Tolerance	10.8%	14.8%	17.1%	95.7%
Teamwork	10.7%	14.6%	16.8%	97.3%
Writing	10.8%	14.8%	16.8%	96.6%

Table 3-1-1.11. 2008 GS-1102s Technical Competencies Average Proficiency Impacted by Retirement Estimate

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater) GS-1102s	Retiring in 4-6 Yrs (% intermediate or greater) GS-1102s	Retiring in 7-10 yrs (% intermediate or greater) GS-1102s	Overall (% intermediate or greater) GS-1102s

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater) GS-1102s	Retiring in 4-6 Yrs (% intermediate or greater) GS-1102s	Retiring in 7-10 yrs (% intermediate or greater) GS-1102s	Overall (% intermediate or greater) GS-1102s
Bid Evaluation	13.0%	15.3%	17.1%	89.2%
Contract Award	13.4%	15.7%	17.6%	89.2%
Defining Contractual Relationships	13.6%	15.5%	17.8%	88.0%
Defining Requirements	14.0%	15.8%	16.7%	88.8%
Dispute Resolution and Termination	13.0%	16.5%	18.5%	82.6%
Financial Management	13.7%	16.2%	17.2%	84.3%
Managing Competition	13.8%	15.1%	17.0%	90.0%
Market Research	13.4%	15.6%	17.4%	92.5%
Negotiation	13.0%	16.4%	17.9%	85.5%
Performance-based Acquisition	13.1%	17.2%	16.7%	81.8%
Performance Management	13.4%	16.3%	16.7%	86.3%
Project Management	12.9%	14.7%	16.9%	92.9%
Proposal Analysis and Evaluation	12.9%	15.2%	17.5%	89.6%
Requirements Management	12.9%	15.7%	17.5%	89.6%
Small Business and Preference Program Participation	13.2%	16.0%	16.5%	87.6%
Solicitation of Orders	13.3%	15.1%	17.4%	90.0%
Strategic Planning	12.8%	15.0%	17.3%	93.3%

Certifications

Contracting professionals hold multiple certifications in varying areas of acquisition. Obtaining internal or external certifications from accredited programs (such as FAC-C or DAWIA certification programs) is a way of illustrating expertise in a particular area.

Training and Development

Table 3-1-1-12. 2008 Contracting Training Needs[8]

Technical Competencies	Beneficial To You % of Respondents	Beneficial To Org % of Respondents
Bid Evaluation	3%	3%
Contract Award	3%	3%
Defining Contractual Relationships	5%	6%
Defining Requirements	9%	12%
Dispute Resolution and Termination	12%	10%
Financial Management	12%	10%
Managing Competition	5%	5%
Market Research	6%	8%
Negotiation	11%	9%
Performance Base Acquisition	17%	17%
Performance Management	7%	9%
Project Management	9%	8%
Proposal Analysis and Evaluation	8%	8%
Requirements Management	3%	5%
Small Business and Preference Program Participation	7%	7%
Solicitation of Orders	4%	3%
Strategic Planning	7%	9%

Managerial and Environmental Considerations

[8] The total number of respondents for the Contracting role was 1,994.

Table 3-1-1.13. 2007/2008 Contracting and GS-1102s Managerial Statement: Average Agreement Comparison

Managerial Statement	2008 Average Agreement Contracting	2007 Average Agreement[9] Contracting	2008 Average Agreement GS- 1102s	2007 Average Agreement Gs-1102s
My supervisor generally supports requests for my employees to participate in training.	4.22	4.28	3.98	4.32
I provide feedback and information to my employees about their competencies and training needs during their performance reviews.	4.11	4.17	4.09	4.17
I would support my employees in identifying rotational assignments.	3.99	3.99	3.95	4.01
I play a key role in my employee's Individual Development Planning.	3.81	3.89	3.64	3.91
There is adequate time for my employees to participate in training.	3.77	3.82	3.89	3.83
I am able to provide adequate on-the-job training and coaching to develop my employees effectively.	3.67	3.71	3.80	3.72
I have adequate resources and support to provide the training my employees need.	3.35	3.34	3.34	3.37
My workload allows me the time to administer my Contracting duties effectively and professionally.	3.33	3.35	3.07	3.31
My workload allows me the opportunity to manage my employee's development effectively.	3.18	3.19	3.27	3.15
My workload allows me the time to increase my managerial and leadership skills by attending training and workshops.	3.07	3.10	2.88	3.06
My team is adequately staffed to allow time to complete operations and also provide mentoring/coaching and on-the-job training.	2.68	2.63	2.70	2.57

Table 3-1-1.14. 2007/2008 Contracting and GS-1102s Environmental Statement: Average Agreement Comparison

Environmental Statement	2008 Average Agreement Contracting	2007 Average Agreement Contracting	2008 Average Agreement GS-1102s	2007 Average Agreement GS-1102s
My supervisor generally approves my requests for training to maintain or increase my certification level or to satisfy my continuous learning requirements.	4.20	4.19	4.07	4.22
I would benefit from working on different assignments or in new areas of acquisition to broaden my expertise.	3.93	4.02	3.87	4.03
My work duties allow me the opportunity to apply the training I receive.	3.93	3.98	3.71	3.98
A rotational assignment outside my immediate organization would broaden my expertise.	3.80	3.89	3.85	3.92
I am actively engaged in my Individual Development Planning.	3.77	3.78	3.38	3.79
If my training request is denied, it is because my organization does not have the funds.	3.75	3.81	3.99	3.79
I am provided dedicated work time to complete on-line training courses.	3.53	3.47	3.76	3.46
I have the opportunity to work on different assignments or in new areas of acquisition to broaden my expertise.	3.47	3.50	3.29	3.56
My supervisor plays a key role in my Individual Development Planning.	3.44	3.44	3.16	3.43
My performance review gives me information about my competency gaps and training needs.	3.36	3.3	3.24	3.31
I do not have a mentor/coach, but would benefit from one.	3.23	3.46	3.40	3.44
If my training request is denied, it is because my workload does not allow me the time.	2.94	2.95	2.95	2.98
I have a mentor/coach.	2.62	2.66	2.36	2.67

3.2 Key Findings – Contracting Officers Technical Representatives

For the 2008 AWCS, COTRs were added for the first time in order to establish a baseline for this acquisition function. The information in this section represents a snapshot in time of the COTRs that responded to the AWCS.[10]

[9] Please note for the 2007 CWCS the agreement rating scale used was (5=strongly disagree, 4=disagree, 3=neither agree nor disagree, 2=agree, 1=strongly agree). For purposes of this agreement comparison the 2007 ratings have been modified to reflect the 2008 agreement ratings scale.

[10] This was the first year COTR data was collected and no comparisons can be drawn with prior years, although the data provides a baseline for future surveys. While every effort was made to obtain a representative sample of the

Demographics

Table 3-2-1. 2008 COTRs Respondents Profile

Profile of the average survey respondent of the COTR workforce:	
According to the AWCS Survey Data	**According to ARFAW Data**
Is age 51 to 55	Is age 50
Holds a Bachelor's Degree	Holds a Bachelor's Degree
Is a Male	Is a Male
Is eligible to retire in 7 to 10 years	Is eligible to retire in 7 to 10 years
Is a Grade 12 or 13	Is a Grade 12
Additional AWCS Data:	
Has 21 or more years of Federal Service	
Has 11 to 20 years of Acquisition Service	
Holds some type of professional certification	

The largest representation of the 1,876 COTRs that responded to the survey were at the GS-13 level (30% or 572 out of 1,876), followed closely by GS-12s (29% or 552 out of 1,876).

Competencies and Aligned Skills

Table 3-2-1.1. 2008 AWCS COTR Technical Competencies Average Proficiency[11]

Technical Competencies	2008 AWCS Average COTR Proficiency
Acquisition Planning	3.67
Defining Government Requirements in Commercial/Non-Commercial Terms	3.43
Effective Contract Management	3.58
Effective Pre-award Communication	3.50
Market Research	3.30
Negotiation	3.14
Performance Management	3.77
Technical Analysis of Proposals	3.62

Table 3-2-1.2. 2008 COTR Aligned Skills Average Proficiency

Aligned Skill	Average Proficiency
Inspection and Acceptance	3.36
Performance Management	3.20
Writing Statements of Work	3.20
Performance Metrics	3.13
Contract Reporting	3.12
Financial Management	3.07
Contract Modification and Adjustment	2.97
Evaluation Documentation	2.96
Contract Administration Planning and Orientations	2.90
Determining Capability	2.68

COTR population that would provide an accurate depiction of the workforce, it should again be noted that the survey was voluntary and based on self-assessment.

[11] Target level proficiencies for COTRS are (2.0-3.0).

Aligned Skill	Average Proficiency
Work Order Management	2.64
Conducting Needs Analysis and Preparing Requirements Documents	2.56
Evaluating Non-Price Factors	2.48
Specialized Requirements	2.29
Determining Need for EVM	2.22
Collecting Source Information	2.21
Strategic Planning	2.21
Market Research	2.17
Solicitation Preparation	2.15
Task and Delivery Order Contracting	2.11
Assisting in the Development of Acquisition Strategy	2.07
Documenting the Source	2.05
Pricing Information from Offerors	2.03
Negotiation Strategy	2.01
Pre-Quote/Pre-Bid/Pre-Proposal Conferences	2.00
Compliance to FAR Guidelines	1.97
Conducting Discussions/Negotiations	1.97
Recurring Requirements	1.97
Amending/Canceling Solicitations	1.94
Methods of Payment	1.85
Subcontracting Requirements	1.67
Pricing Arrangements	1.58
Publicizing Proposed Acquisitions	1.53
Contract Financing	1.28
Unpriced Contracts	1.15

Table 3-2-1.3. 2008 COTR Aligned Skills Average Time Spent

Aligned Skills	Average Time Spent
Inspection and Acceptance	1.73
Writing Statements of Work	1.68
Performance Management	1.63
Performance Metrics	1.62
Contract Reporting	1.59
Financial Management	1.58
Contract Modification and Adjustment	1.41
Contract Administration Planning and Orientations	1.36
Evaluation Documentation	1.32
Work Order Management	1.28
Conducting Needs Analysis and Preparing Requirements Documents	1.23
Determining Capability	1.18
Determining Need for EVM	1.08
Evaluating Non-Price Factors	1.07
Strategic Planning	1.06
Specialized Requirements	1.05
Market Research	1.01
Collecting Source Information	0.99
Task and Delivery Order Contracting	0.99
Solicitation Preparation	0.97
Compliance to FAR Guidelines	0.94
Recurring Requirements	0.92
Assisting in the Development of Acquisition Strategy	0.89
Pricing Information from Offerors	0.85
Documenting the Source	0.80

Aligned Skills	Average Time Spent
Negotiation Strategy	0.80
Conducting Discussions/Negotiations	0.79
Pre-Quote/Pre-Bid/Pre-Proposal Conferences	0.78
Amending/Canceling Solicitations	0.73
Methods of Payment	0.69
Pricing Arrangements	0.66
Subcontracting Requirements	0.63
Publicizing Proposed Acquisitions	0.51
Contract Financing	0.48
Unpriced Contracts	0.43

Competencies Subject to Impact Due to Retirement

Table 3-2-1.4. 2008 COTR Technical Competencies Average Proficiency Impacted by Retirement Estimate

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater)	Retiring in 4-6 Yrs (% intermediate or greater)	Retiring in 7-10 yrs (% intermediate or greater)	Overall (% intermediate or greater)
Acquisition Planning	12.4%	15.4%	19.1%	83.7%
Defining Government Requirements in Commercial/Non-Commercial Terms	12.6%	15.7%	19.2%	75.5%
Effective Contract Management	12.2%	14.9%	19.1%	79.5%
Effective Pre-award Communication	12.3%	15.2%	19.3%	75.8%
Market Research	12.9%	15.1%	19.0%	71.8%
Negotiation	12.2%	14.9%	19.5%	66.2%
Performance Management	11.9%	15.6%	18.8%	83.8%
Technical Analysis of Proposals	12.4%	14.9%	19.1%	80.2%

Certifications

COTRs respondents (1,278 out of 1,876), 68% reported holding agency specific COTR certification, followed by FAC-COTR certification with the second largest number of certifications at (408 out of 1,876), 21% respondents. COTRs also hold agency and external certifications in project management.

Training and Development

Table 3-2-1.5. 2008 COTR Training Needs[12]

Technical Competencies	Beneficial To You % of Respondents	Beneficial To Org % of Respondents
Acquisition Planning	15%	15%
Defining Government Requirements in Commercial/Non-Commercial Terms	22%	19%
Effective Contract Management	18%	19%
Effective Pre Award Communication	14%	12%
Market Research (Understanding the Marketplace)	24%	19%
Negotiation	24%	19%
Performance Management	16%	19%
Technical Analysis of Proposals	18%	19%

[12] The total number of respondents for the COTR role was 1,876.

Managerial and Environmental Considerations

Table 3-2-1.6. 2008 COTR Managerial Statement: Average Agreement

Managerial Statement	2008 Average Agreement
My supervisor generally supports requests for my employees to participate in training.	4.08
I provide feedback and information to my employees about their competencies and training needs during their performance reviews.	4.02
I would support my employees in identifying rotational assignments.	3.90
There is adequate time for my employees to participate in training.	3.78
I play a key role in my employee's Individual Development Planning.	3.74
I am able to provide adequate on-the-job training and coaching to develop me employees effectively.	3.72
My workload allows me the time to administer my contracting duties effectively and professionally.	3.62
My workload allows me the opportunity to manage my employee's development effectively.	3.43
I have adequate resources and support to provide the training my employees need.	3.35
My workload allows me the time to increase my managerial and leadership skills by attending training and workshops.	3.35
My team is adequately staffed to allow time to complete operations and also provide mentoring/coaching and on-the-job training.	3.02

Table 3-2-1.7. 2008 COTR Environmental Statement: Average Agreement

Environmental Statement	2008 Average Agreement
My supervisor generally approves my requests for training to maintain or increase my certification level or to satisfy my continuous learning requirements.	4.12
My work duties allow me the opportunity to apply the training I receive.	3.85
If my training request is denied, it is because my organization does not have the funds.	3.69
A rotational assignment outside my immediate organization would broaden my expertise.	3.58
I am provided dedicated work time to complete on-line training courses.	3.58
I would benefit from working on different assignments or in new areas of acquisition to broaden my expertise.	3.53
I am actively engaged in my Individual Development Planning.	3.45
I do not have a mentor/coach, but would benefit from one.	3.23
My performance review gives me information about my competency gaps and training needs.	3.18
My supervisor plays a key role in my Individual development Planning.	3.18
I have the opportunity to work on different assignments or in new areas of acquisition to broaden my expertise.	3.14
If my training request is denied, it is because my workload does not allow me the time.	2.80
I have a mentor/coach.	2.39

Additional Notes

As with the Contracting workforce, COTRs are also likely to be affected significantly by retirement in the coming years.

3.3 Key Findings – Program/Project Managers

P/PM competencies were assessed for the first time in 2008, providing a baseline for the future.[13]

Demographics

Table 3-3-1. 2008 P/PM Respondents Profile

Profile of the average survey respondent in the Program/Project Manager Function:

[14]This was the first year P/PM data was collected and no comparisons can be drawn against prior years, although the data provides a baseline for future surveys. While every effort was made to obtain a representative sample of the P/PM population that would provide an accurate depiction of the workforce, it should again be noted that the survey was voluntary and based on self-assessment.

According to the AWCS Survey Data	According to ARFAW Data
Is age 46 to 55	Is age 49
Holds a Bachelor's Degree	Holds a Bachelor's Degree
Is a Male	Is a Male
Is eligible to retire in 7 to 10 years	Is eligible to retire in 7 to 10 years
Is a Grade 14 or 15	Is a Grade 12
Additional AWCS Data:	
Has 21 or more years of Federal Service	
Has 11 to 20 years of Acquisition service	
Holds some type of professional certification	

P/PMs accounted for 13% (564) of the overall respondents participating in the 2008 AWCS. As reflected in the P/PM respondent profile, the majority of the 564 P/PM survey respondents were at the mid- to senior-level grades, with 30% (171 out of 564) at the GS-14 level followed by 24% (156 out of 564) at the GS-15 level. Most P/PM respondents held a Masters degree and other professional certifications such as FAC-P/PM, Commercial certifications, or Agency-specific COTR.

Competencies and Aligned Skills

At a glance, P/PM competency levels show relatively even results. Three of the competencies (*Requirements Development and Management Processes, Systems Engineering*, and *Leadership/Professional*) show the highest proficiency averages for P/PMs.

Table 3-3-1.1. 2008 AWCS P/PM Technical Competencies Average Proficiency[14]

Technical Competencies	2008 AWCS Average P/PM Proficiency
Business, Cost Estimating, & Financial Management	3.01
Contracting	3.04
Leadership/Professional	3.58
Life Cycle Logistics (LCL)	2.91
Requirement Development and Management Processes	3.36
Systems Engineering	3.16
Test and Evaluation	3.00

Table 3-3-1.2. 2008 P/PM Aligned Skills Average Proficiency

Aligned Skills	Average Proficiency
Written Communication	4.00
Customer Service	3.99
Accountability	3.96
Interpersonal Skills	3.87
Flexibility	3.82
Problem Solving	3.82
Decisiveness	3.72
Influencing/Negotiating	3.72
Oral Communications	3.72

[14] Target level proficiencies for P/PMs are (3.0-4.0).

Aligned Skills	Average Proficiency
Reasoning	3.69
Partnering	3.68
Team Building/IPT	3.67
Creativity/Innovation	3.66
Resilience	3.63
Strategic Thinking	3.53
Working Groups and Teams	3.50
Developing Others	3.45
Vision	3.43
Conflict Management	3.38
Leveraging Diversity	3.38
External Awareness	3.37
Political Savvy	3.33
Communications Management	3.24
Entrepreneurship	3.13
Requirements Development Process	2.97
Legal, Government Jurisprudence	2.94
Concept Selection Process	2.88
Prepare Requirements & Support Documentation	2.87
Technical Process	2.76
Core Management Skills & Processes	2.74
Administer Contract	2.70
Prepare & Issue Solicitation	2.69
Perform Source Selection	2.64
Technical Management Process	2.62
Contract Approach	2.60
Risk & Opportunity Management	2.58
Financial Reporting & Oversight	2.57
Technology Development Process	2.52
Market Research (including socio-economic considerations)	2.43
Performance Based Agreements	2.41
Cost Estimating	2.34
Dept/Agency Programming, Planning and Budgeting Type System (OMB A-11)	2.27
Business Financial Planning & Management	2.18
Earned Value Management (EVM)	2.18
Total Ownership Cost (OMB A-94)	2.05
Life-cycle Logistic (LCL) Management, Product Support, and Interoperability	1.97
Test and Evaluation Strategy (TES)	1.83
Realistic or Operational Test and Evaluation (OT&E)	1.78
Integration of T&E	1.73

Table 3-3-1.3. 2008 P/PM Aligned Skills Average Time Spent

Aligned Skills	Average Time Spent
Written Communication	2.37
Interpersonal Skills	2.29
Accountability	2.27
Customer Service	2.24
Problem Solving	2.24
Oral Communications	2.14
Flexibility	2.13
Influencing/Negotiating	2.08
Decisiveness	2.06

Aligned Skills	Average Time Spent
Partnering	2.03
Team Building/IPT	2.02
Reasoning	2.01
Working Groups and Teams	1.96
Creativity/Innovation	1.95
Resilience	1.91
Strategic Thinking	1.90
Developing Others	1.80
Communications Management	1.79
Vision	1.79
Conflict Management	1.75
Political Savvy	1.73
External Awareness	1.67
Leveraging Diversity	1.62
Legal, Government Jurisprudence	1.54
Entrepreneurship	1.48
Requirements Development Process	1.43
Prepare Requirements & Support Documentation	1.41
Technical Process	1.38
Core Management Skills & Processes	1.36
Technical Management Process	1.34
Concept Selection Process	1.33
Contract Approach	1.31
Administer Contract	1.29
Financial Reporting & Oversight	1.29
Risk & Opportunity Management	1.26
Prepare & Issue Solicitation	1.24
Perform Source Selection	1.17
Technology Development Process	1.15
Performance Based Agreements	1.13
Cost Estimating	1.12
Market Research (including socio-economic considerations)	1.07
Dept/Agency Programming, Planning and Budgeting Type System (OMB A-11)	1.06
Business Financial Planning & Management	1.01
Earned Value Management (EVM)	0.94
Total Ownership Cost (OMB A-94)	0.90
Life-cycle Logistic (LCL) Management, Product Support, and Interoperability	0.84
Integration of T&E	0.72
Test and Evaluation Strategy (TES)	0.72
Realistic or Operational Test and Evaluation (OT&E)	0.69

Competencies Subject to Impact Due to Retirement

Table 3-3-1.4. 2008 P/PM Technical Competencies Average Proficiency Impacted by Retirement Estimate

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater)	Retiring in 4-6 Yrs (% intermediate or greater)	Retiring in 7-10 yrs (% intermediate or greater)	Overall (% intermediate or greater)
Business, Cost Estimating, and Financial Management	10.9%	15.4%	24.1%	63.3%
Contracting	11.6%	15.4%	22.2%	65.6%
Leadership/Professional	11.8%	15.9%	21.2%	81.2%

Technical Competencies	Retiring in the next 3 yrs (% intermediate or greater)	Retiring in 4-6 Yrs (% intermediate or greater)	Retiring in 7-10 yrs (% intermediate or greater)	Overall (% intermediate or greater)
Life Cycle Logistics (LCL)	10.3%	14.2%	24.8%	60.1%
Requirement Development and Management Processes	10.3%	15.3%	23.4%	74.3%
Systems Engineering	10.9%	14.8%	23.4%	68.3%
Test and Evaluation	9.5%	16.4%	24.1%	61.7%

Certifications

In addition to Agency specific and external project management certifications, many P/PMs also hold Agency specific COTR certifications. Further analysis shows that higher grades of service for P/PMs are positively associated with multiple levels of certification such FAC P/PM entry, mid, and senior levels.

Training and Development

Table 3-3-1.5. 2008 P/PM Training Needs[15]

Technical Competencies	Beneficial To You % of Respondents	Beneficial To Org % of Respondents
Business, Cost Estimating & Financial Management	33%	35%
Contracting	36%	41%
Leadership/Professional	34%	34%
Life Cycle Logistics (LCL)	25%	28%
Requirements Development and Management Processes	32%	42%
Systems Engineering	23%	27%
Test and Evaluation (T&E)	22%	22%

Managerial and Environmental Considerations

Table 3-3-1.6. 2008 P/PM Managerial Statement: Average Agreement

Managerial Statement	2008 Average Agreement
My supervisor generally supports requests for my employees to participate in training.	4.22
I provide feedback and information to my employees about their competencies and training needs during their performance reviews.	4.07
I would support my employees in identifying rotational assignments.	3.98
There is adequate time for my employees to participate in training.	3.75
I play a key role in my employee's Individual Development Planning.	3.65
I am able to provide adequate on-the-job training and coaching to develop my employees effectively.	3.60
My workload allows me the time to administer my contracting duties effectively and professionally.	3.49
I have adequate resources and support to provide the training my employees need.	3.39
My workload allows me the opportunity to manage my employee's development effectively.	3.20
My workload allows me the time to increase my managerial and leadership skills by attending training and workshops.	3.17
My team is adequately staffed to allow time to complete operations and also provide mentoring/coaching and on-the-job training.	2.87

Table 3-3-1.7. 2008 P/PM Environmental Statement: Average Agreement

Environmental Statement	2008 Average Agreement
My supervisor generally approves my requests for training to maintain or increase my certification level or to satisfy my continuous learning requirements.	4.06
My work duties allow me the opportunity to apply the training I receive.	3.81

[15] The total number of respondents for the P/PM role is 564.

Environmental Statement	2008 Average Agreement
A rotational assignment outside my immediate organization would broaden my expertise.	3.79
I would benefit from working on different assignments or in new areas of acquisition to broaden my expertise	3.71
If my training request is denied, it is because my organization does not have the funds.	3.68
I am provided dedicated work time to complete on-line training courses.	3.62
I am actively engaged in my Individual Development Planning	3.58
I have the opportunity to work on different assignments or in new areas of acquisition to broaden my expertise.	3.31
I do not have a mentor/coach, but would benefit from one.	3.29
My supervisor plays a key role in my Individual development Planning.	3.17
My performance review gives me information about my competency gaps and training needs.	3.14
If my training request is denied, it is because my workload does not allow me the time.	2.91
I have a mentor/coach.	2.40

Additional Notes

As with the Contracting and COTR workforce, P/PMs are also likely to be affected significantly by retirement in the coming years. As reported by AWCS P/PM respondents, more than 59% are eligible to retire within seven years, and 51% indicate that they plan on doing so.

About FAI

The Federal Acquisition Institute (FAI) is the primary organization providing knowledge and support to the federal acquisition workforce. We focus on fostering professional development throughout the lifecycle of each individual. FAI is the advocate organization creating one voice for the acquisition community, to above all recruit, develop, and retain highly qualified acquisition professionals. Established in 1976 under the Office of Federal Procurement Policy (OFPP) Act, FAI establishes performance measures for assessing development programs; supports the identification, development and maintenance of competencies; establishes career development programs; establishes and administers certification programs; and manages the Acquisition Workforce Training Fund (AWTF). FAI works to improve federal acquisition by developing and evaluating instructional materials and performance tools, and facilitating interagency intern and training programs. We identify competencies that support successful performance and development of business leaders. We promote and coordinate government-wide research to improve the acquisition process, and help agencies identify and recruit highly qualified candidates for acquisition jobs. FAI's vision is to ensure the availability of exceptional acquisition workforce training, provide compelling research and analysis on issues affecting the acquisition community, promote professionalism in the acquisition ranks, and improve overall acquisition workforce management. As a central resource for professional development and certification, career guidance, current industry information and emerging trends, FAI is committed to forging partnerships with government, private, and public-sector entities, as well as educational institutions. With more than 30 years as a resource to the federal government, FAI continues to be at the forefront of workforce certification and continuous professional development.

4. Appendices

A. Contracting Professionals Competencies and Aligned Skills Definitions

General Business Competencies

Arithmetic: Performs computations using whole numbers, fractions, decimals, and percentages.

Attention to Detail: Is thorough when performing work and conscientious about attending to detail.

Contracting/Procurement: Has knowledge of various types of contracts, techniques for Contracting or procurement, and contract negotiation and administration.

Creative Thinking: Uses imagination to develop new insights into situations and applies innovative solutions to problems; design new methods where established methods and procedures are not applicable or are unavailable.

Customer Service: Works with customers to assess needs, provide assistance, resolve problems, satisfy expectations; knows products and services.

Decision-Making: Makes sound, well informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change.

Flexibility: Is open to change and new information; adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacles; effectively deals with ambiguity.

Influencing/Negotiating: Persuades others to accept recommendations, cooperate, or change their behavior; work with others towards an agreement; negotiates to find mutually acceptable solutions.

Information Management: Identifies a need for and knows where or how to gather information; organizes and maintains information or information management systems.

Integrity/Honesty: Contributes to maintaining the integrity of the organization; displays high standards of ethical conduct and understands the impact of violating these standards on an organization, self, and others; is trustworthy.

Interpersonal Skills: Shows understanding, courtesy, tact, empathy; develops and maintains relationships; deals with difficult people; relates well to people from varied backgrounds; is sensitive to individual differences.

Learning: Uses efficient learning techniques to acquire and apply new knowledge and skills, uses training, feedback, etc., for self-learning and development.

Math Reasoning: Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

Memory: Recalls information that has been presented previously.

Oral Communication: Expresses information to individuals or groups effectively, taking into account the audience and nature of the information; makes clear and convincing presentations, listens to others; attends to nonverbal cues.

Planning and Evaluating: Organizes work, sets priorities, determines resource requirements, determines goals and strategies; coordinates with other organizations, monitors progress; evaluates outcomes.

Problem Solving: Identifies problems; determines accuracy and relevance of information; uses sound judgment to

generate and evaluate alternatives, and make recommendations.

Reading: Understands and interprets written material including technical material, rules, regulations, instructions, reports; applies what is learned from written material.

Reasoning: Identifies rules, principles, or relationships that explain facts, data or other information; analyzes information and makes correct inferences or accurate conclusions.

Self-Esteem: Believes in own self-worth; maintains a positive view of self and displays a professional image.

Self-Management/Initiative: Sets well-defined and realistic personal goals; displays a high level of initiative, effort, and commitment towards completing assignments in a timely manner; works with minimal supervision; is motivated to achieve; demonstrates responsible behavior.

Stress Tolerance: Deals calmly and effectively with high stress situations (for example, tight deadlines, hostile individuals, emergency situations, and dangerous situations).

Teamwork: Encourages and facilitates cooperation, pride, trust; fosters commitment; works with others to achieve goals.

Writing: Recognizes or uses correct English grammar, punctuation, and spelling; communicates information in a succinct and organized manner, produces written information that is appropriate for the intended audience.

Technical Competencies and Aligned Skills

Strategic Planning

Ability to advise customers on their acquisition-related roles and in the development and implementation of strategies needed to assure that supplies and services are available when needed to meet mission requirements.

Aligned Skills:

- **Strategic Planning:** Advise customers on their acquisition-related roles and the development and implementation of strategies needed to assure that supplies and services are available when needed to meet mission requirements.

Project Management

Ability to develop and maintain a workable plan and manage resources to accomplish the overall goal of the acquisition project.

Aligned Skills:

- **Project Management:** Develop and maintain a workable plan and manage resources to accomplish the overall goal of the project; manage and follow through to ensure the smooth flow and timely completion of activities that deliver project results.
- **Contracting with Appropriate Government wide Acquisition Systems:** Select the most appropriate electronic system or tool to use during market research, solicitation, evaluation, award, and contract administration.

Market Research

Ability to collect and analyze relevant market information and identify possible sources for the acquisition through effective market analysis and industry knowledge.

Aligned Skills:

- **Market Research:** Collect and analyze relevant market information from Government and non-government sources as well as prospective offerors. Identify possible sources for the acquisition through effective market analysis and knowledge of suppliers.

Managing Competition

Ability to advise customers on competitive options based on business strategies, market environments, acquisition goals, and FAR requirements. Ability to determine whether to limit competition to socio-economic concerns.

Aligned Skills:

- **Requirements Analysis:** Review and provide business advice in the preparation of requirements documents and related elements of the Procurement Request.
- **Competitive Sourcing:** Conduct public-private competitions pursuant to OMB Circular A-76, including the issuance of solicitations, the conduct of source selections, and the administration of letters of obligation with the "Government's Most Efficient Organization."
- **Competitive Sourcing Regulations:** Comply with competitive sourcing regulations; handle collective bargaining, right-of-refusal, and conflict-of-interest issues.
- **Managing Competition:** Determine how to manage competition based on business strategies, market environments, acquisition goals, and socio-economic conditions.

Small Business and Preference Program Participation

Ability to identify opportunities for small business and other preference programs to participate in solicitations. Ability to strategize with program officials to encourage preference program participation.

Aligned Skills:

- **Socioeconomic Requirements:** Determine whether to limit competition to small business concerns, eligible 8(a) concerns, or a single eligible 8(a) concern.

Defining Requirements

Ability to determine or develop offer evaluation factors that will discriminate between offerors and that tie back to the technical requirements included in the solicitation. Ability to determine the most appropriate method of acquisition for each procurement request.

Aligned Skills:

- **Selecting Offer Evaluation Factors:** Selecting appropriate offer evaluation factors for incorporation in the solicitation.
- **Determining Method of Acquisition:** Determine the most appropriate method of acquisition based on forecast requirements, acquisition plans, market research, the Procurement Request, and other related documents.

Performance Based Acquisition

Ability to determine if performance based acquisition is the appropriate acquisition strategy to use in a procurement. Ability to develop a performance work statement or a statement of objectives. Ability to conduct research to determine performance standards or incentives that will effectively measure contractor results.

Aligned Skills:

- **Performance Based Acquisition (PBA):** Determine if performance based acquisition is the appropriate acquisition strategy to use; develop a performance work statement or a statement of objectives; conduct market research to determine performance standards or incentives to effectively measure contractor results.

Defining Contractual Relationships

Ability to identify and select the most appropriate contractual terms and arrangements; for example, in pricing, financing, and payment methods.

Aligned Skills:

- **Environmental, Energy, and Water Efficiency:** Comply with applicable FAR requirements when acquiring energy, environmental, or water efficient products and services.
- **Pricing Arrangements:** Select the most appropriate pricing arrangements(s) to solicit.
- **Recurring Requirements:** Determine whether and how to provide for recurring requirements.
- **Unpriced Contracts:** Prepare unpriced orders and contracts using a simplified acquisition procedure.
- **Contract Financing:** Determine whether to provide for Government financing, and, where necessary, the method of financing to use.
- **Methods of Payment:** Select the most appropriate method of payment that will best minimize the
- Government's overhead.
- **Documenting the Source Selection Plan:** Determine whether a written source selection plan is necessary, and if so, properly documenting the source selection planning.

Solicitation of Offers

Ability to manage the solicitation process and adhere to procedures, including writing and publicizing the procurement, conducting discussions and conferences, and amending or canceling the solicitation when appropriate.

Aligned Skills:

- **Publicizing Proposed Acquisitions:** Selecting and implementing a method of publicizing the proposed procurement.
- **Sub-Contracting Requirements:** Establishing requirements and incorporating the appropriate Sub-Contracting and make-or-buy clauses in the solicitation.
- **Conducting Oral Solicitations/Proposals:** Planning and conducting effective oral solicitations/proposals.
- **Solicitation Preparation:** Prepare a written solicitation that includes the appropriate provisions and clauses for the requirement, assembled in a format appropriate to the acquisition method and market.
- **Responding to Inquiries and FOIA Requests:** Respond appropriately to an inquiry about the solicitation received prior to contract award or a request for information under the Freedom of Information Act.
- **Pre-Quote/Pre-Bid/Pre-Proposal Conferences:** Conduct a pre-quote, pre-bid, or pre-proposal conference when appropriate and maintain an accurate record of the meeting.
- **Amending/Canceling Solicitations:** Amend or cancel a solicitation when it is in the best interest of the Government and conforms to laws and regulations.

Bid Evaluation

Ability to receive, handle, and evaluate bids adhering to proper procedures.

Aligned Skills:

- **Managing the Bidding Process:** Effectively manage a sealed bidding process including receiving and recording bids, evaluating the received bids, calculating the evaluated price, and determining whether the low bid conforms to all requirements.

Proposal Analysis and Evaluation

Ability to receive, handle, and evaluate quotations/proposals adhering to proper procedures. Ability to obtain proper disclosure of accounting practices and to determine if the firm's accounting practices comply with Government cost accounting standards.

Aligned Skills:

- **Managing the Quotations and Proposal Process:** Receive quotations/proposals including the safeguarding, opening, tracking, assessing compliance with minimum solicitation requirements, and identifying the quotations/proposals that will not receive further consideration.
- **Evaluating Non-Price Factors:** Apply non-price factors in evaluating quotations, proposals, and past performance.
- **Pricing Information from Offerors:** Determine what pricing information to require from offerors.
- **Evaluating Accounting and Estimating Systems:** Determine the adequacy of a firm's accounting and estimating systems in making Contracting decisions. Assure that a firm properly discloses its accounting practices when required by Government cost accounting standards (CAS) and that the disclosed practices comply with CAS requirements.
- **Using Audit Information:** Using audit findings to support cost analysis, price analysis, or cost reasonableness analysis and to develop negotiation objectives.

Negotiation

Ability to plan negotiation positions and prepare negotiation strategies. Ability to conduct a negotiation session and document the elements of the negotiated agreement.

Aligned Skills:

- **Performing Price and Cost Analysis (Negotiated Acquisitions):** Establish pre-negotiation positions on price and cost factors.
- **Performing Analysis for Negotiated Acquisitions:** Establish pre-negotiation positions on price and cost factors and on other terms and conditions.
- **Conducting Proposal Communications:** Conduct communications to enhance Government understanding of proposals and to facilitate the Government's evaluation process.
- **Establishing the Competitive Range:** Select the offerors/quoters to participate in discussions thereby establishing the competitive range under FAR Part 15.
- **Negotiation Strategy:** Prepare a negotiation strategy and plan that will permit negotiators to maximize the Government's ability to obtain best value.
- **Conducting Discussions/Negotiations:** Conduct a negotiation session and negotiate an agreement on cost/price, terms and conditions.

- **Determining Responsibility/Capability:** Determine and document the responsibility or capability of a firm to effectively perform the terms and conditions of the contract.

Contract Award

Ability to handle all aspects of contract award and resolution including preparation and distribution of documents and notifications and debriefing unsuccessful offerors. Ability to resolve complaints and concerns.

Aligned Skills:

- **Preparing and Issuing Awards:** Prepare, approve, sign, execute, and document the contract award, making all required notifications.
- **Conducting Debriefings:** Conduct pre-award debriefings to provide feedback to unsuccessful offerors.
- **Handling Protests:** Process protests in accordance with FAR and agency requirements, acting to resolve the complaint or concern in an appropriate manner.
- **Entering Procurement Related Data:** Entering timely, complete, and accurate procurement-related data on contract awards and actions into FPDS.

Requirements Management

Ability to administer contract requirements and manage vendor relationships for effective delivery of goods and services. Ability to work with COTRs to monitor and manage contracts.

Aligned Skills:

- **Contract Administration Planning and Orientations:** Plan for the review, evaluation, and judging of a contractor's performance; clearly define the COTR roles and responsibilities. Conduct post-award orientation meetings to review contract milestones and responsibilities.
- **Contract Modification and Adjustment:** Modify or adjust a contract when appropriate in an effective and equitable manner.
- **Task and Delivery Order Contracting:** Apply the policies and procedures for utilizing task and delivery order contracts and using basic ordering agreements.

Performance Management

Ability to monitor contract performance and take any necessary action and apply remedies to protect the rights of the Government. Ability to use performance metrics to evaluate actual performance against goals.

Aligned Skills:

- **Performance Metrics:** Monitor performance by evaluating actual performance processes, workflow requirements, and outputs against pre-determined goals.
- **Performance Management:** Monitor contract performance and take any necessary action related to delays in contract performance or the need to stop work under the contract. Document past performance information completely and fairly, validly characterizing the contractor's actual performance.

Financial Management

Ability to manage all financial aspects of contract administration including cost/pricing remedies, authorizing payments, recovering debts, and detecting fraud.

Aligned Skills:

- **Commercial/Simplified Acquisition Remedies:** Apply remedies to protect the rights of the Government under commercial item contracts and simplified acquisitions.
- **Noncommercial Acquisition Remedies:** Apply remedies to protect the rights of the Government under noncommercial item contracts.
- **Administering Financing Terms:** Administer contract financing terms appropriately; paying proper amounts due contract under the contract financing clause.
- **Costs, Pricing, and Fees:** Make appropriate decisions to allow or disallow contract costs. Adjust the price or fee in accordance with the terms of the contract. Determine if cost or pricing data were defective and apply appropriate remedies.
- **Reviewing Invoices:** Review invoices and determine whether to authorize payment in full, in part, or not at all.

Dispute Resolution and Termination

Ability to investigate, analyze, and manage disputes; negotiate resolutions and prepare a Contract Officer's decision. Ability to determine, recommend and perform the termination of contracts when it is in the best interest of the Government.

Aligned Skills:

- **Identifying Fraud:** Identify whether fraud or other civil or criminal offenses may have been committed; document the information discovered; refer all indications to the proper authorities.
- **Resolving Disputes:** Analyze a claim and determine its validity; negotiate a resolution if necessary; prepare a decision.
- **Collecting Contractor Debts:** Recover debts due from contractors.
- **Administer Special Terms and Conditions:** Enforce Government and contractor compliance with special terms and conditions.
- **Terminating Contracts:** Terminate contracts when in the best interest of the Government, following applicable FAR and/or UCC requirements.
- **Contract Closeout:** Perform contract closeout and archive records as appropriate.

B. Contracting Officers Technical Representatives Competencies and Aligned Skills Definitions

General Business Competencies

- **Attention to Detail:** Is thorough when performing work and conscientious about attending to detail.
- **Decision-Making:** Makes sound, well informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change.
- **Flexibility:** Is open to change and new information; adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacle; effectively deals with ambiguity.
- **Influencing/Negotiating:** Persuades others to accept recommendations, cooperate, or change their behavior; work with others towards an agreement; negotiates to find mutually acceptable solutions.
- **Integrity/Honesty:** Contributes to maintaining the integrity of the organization; displays high standards of ethical conduct and understands the impact of violating these standards on an organization, self, and others; is trustworthy.
- **Interpersonal Skills:** Shows understanding, courtesy, tact, empathy; develops and maintains relationships; deals with difficult people; relates well to people from varied backgrounds; is sensitive to individual differences.
- **Oral Communication:** Expresses information to individuals or groups effectively, taking into account the audience and nature of the information; makes clear and convincing presentations, listens to others; attends to nonverbal cues.
- **Planning and Evaluating:** Organizes work, sets priorities, determines resource requirements, determines goals and strategies; coordinates with other organizations, monitors progress; evaluates outcomes.
- **Problem Solving:** Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and make recommendations.
- **Project Management:** Develops and maintains a workable plan and manages resources to accomplish the overall goal of the project; plans, manages and follows through to ensure the smooth flow and timely completion of activities that deliver project results; anticipates obstacles or gaps that would impact project success and works to continuously improve the agency's capability to achieve success.
- **Reasoning:** Identifies rules, principles, or relationships that explain facts, data or other information; analyzes information and makes correct inferences or accurate conclusions.
- **Self-Management/Initiative:** Sets well-defined and realistic personal goals; displays a high level of initiative, effort, and commitment towards completing assignments in a timely manner; works with minimal supervision; is motivated to achieve; demonstrates responsible behavior.
- **Teamwork:** Encourages and facilitates cooperation, pride, trust; fosters commitment; works with others to achieve goals.
- **Writing:** Recognizes or uses correct English grammar, punctuation, and spelling; communicates information in a

succinct and organized manner, produces written information that is appropriate for the intended audience.

Technical Competencies

Acquisition Planning

Assist in the planning and implementation of strategies needed to assure that supplies and services are available when needed to meet mission requirements.

Aligned Skills:

- **Documenting the Source:** Assist in determining whether a written source selection plan is necessary, and if so, properly documenting the source selection planning.
- **Methods of Payment:** Assist in the selection of the most appropriate method of payment that will best minimize the Government's overhead.
- **Contract Financing:** Assist in determining whether to provide for Government financing, and, where necessary, the method of financing to use.
- **Unpriced Contracts:** Assist in the preparation of unpriced orders and contracts.
- **Recurring Requirements:** Assist in determining whether and how to provide for recurring requirements.
- **Pricing Arrangements:** Assist in the selection of the most appropriate pricing arrangements(s) to solicit.
- **Compliance to FAR Guidelines:** Assist the CO with compliance of applicable FAR guidelines when acquiring products and services.
- **Determining Need for EVM:** Mitigate potential problems with cost, schedule, and technical risks.
- **Task and Delivery Order Contracting:** Suggest possible ordering vehicles to the CO in order to assist in determining the appropriate vehicles and submitting work package to request work under the contract.
- **Strategic Planning:** Advise customers on their acquisition-related roles and in the development and implementation of strategies needed to assure that supplies and services are available when needed to meet mission requirements.

Market Research (Understanding the Marketplace)

Conduct, collect and analyze relevant market information and identify possible sources for the acquisition through effective market analysis and industry knowledge.

Aligned Skills:

- **Market Research:** Conduct, collect, and apply market based research to understand the market place/requirement to provide the sources for a supply or service, the terms and conditions under which those goods/services are sold to the general public, and assist the CO on the best way to meet the need.
- **Collecting Source Information:** Gather all information related to the potential sources of an acquisition as well as, for commercial items, the terms and conditions under which the sources sell the goods and/or services involved.

Defining Government Requirements in Commercial/Non-Commercial Terms

Define the necessary requirements to determine or develop offer evaluation factors that will discriminate between offerors that tie back to the technical requirements included in the solicitation and assist the CO in determining the most appropriate method of acquisition for each procurement request.

Aligned Skills:

- **Writing Statements of Work:** Create statements of work, SOOs and other related documents.
- **Conducting Needs Analysis and Preparing Requirements Documents:** Perform an analysis based on standard methodology to identify all requirements and obligations in order to assist in the development of requirements documents.
- **Assisting in the Development of Acquisition Strategy:** Assist the CO with the development of an appropriate acquisition strategy.

Effective Pre Award Communication

Assist CO with technical issues related to industry questions concerning the procurement, conducting pre-proposal and pre-bid conferences, and protecting procurement sensitive information.

Aligned Skills:

- **Publicizing Proposed Acquisitions:** Recommend to CO additional methods of publicizing the proposed procurement when appropriate.
- **Sub-Contracting Requirements:** Recommend appropriate requirements be put into solicitations for Sub-Contracting or make-or-buy situations.
- **Solicitation Preparation:** Assist in the preparation of a written solicitation, providing guidance as needed in the selection of the appropriate provisions and clauses for the requirement.
- **Pre-Quote/Pre-Bid/Pre-Proposal Conferences:** Assist with the pre-quote, pre-bid, or pre-proposal conference when appropriate and maintain an accurate record of the meeting.
- **Amending/Canceling Solicitations:** Provide input into the amendment or cancelation of a solicitation when it is in the best interest of the Government and/or Agency.

Technical Analysis of Proposals

Evaluate technical proposals against the evaluation criteria and participate in the evaluation of cost proposals; assist in best value trade-off analysis; evaluate past performance information and contact references if the CO delegates this responsibility; assist in the evaluation of return on investment (ROI).

Aligned Skills:

- **Evaluating Non-Price Factors:** Apply non-price factors in evaluating quotations, proposals, and past performance.
- **Pricing Information from Offerors:** Assist in determining what pricing information to require from offerors when requested by CO.
- **Evaluation Documentation:** Ability to clearly document reasoning behind proposed evaluation.

Negotiation

Assist in the planning of negotiation positions and preparation of negotiation strategies, conducting a negotiation session, and documenting the elements of the negotiated agreement when requested by the CO.

Aligned Skills:

- **Negotiation Strategy:** Assist CO in preparing a negotiation strategy that will permit negotiators to maximize the Government's ability to obtain best value.

- **Conducting Discussions/Negotiations:** Assist CO in conducting a negotiation session and negotiating an agreement on cost/price, terms and conditions.
- **Determining Capability:** Assist in determining and documenting the capability of a firm to effectively perform the terms and conditions of the contract.

Effective Contract Management

Communicate to the CO any recommended scope changes or other changes that may result in the modification to the contract, recognize the impact of changes on milestones, and identify and resolve technical problems and develop alternative solutions; participate in IBRs and analyze EVM data.

Aligned Skills:

- **Contract Administration Planning and Orientations:** Define the COTR roles and responsibilities by knowing the terms and conditions to which they are assigned; and participate in post-award orientation meetings to review contract milestones and responsibilities.
- **Contract Modification and Adjustment:** Request/recommend contract modifications or adjustments and provide appropriate documentation for the request to the CO.
- **Work Order Management:** Submit work package to request work under the contract.

Performance Management

Monitor contract performance and recommend necessary action to the CO, in order for the CO to protect the rights of the Government, and use performance metrics to evaluate actual performance against goals.

Aligned Skills:

- **Performance Metrics:** Monitor performance by evaluating actual performance processes, workflow requirements, and outputs against pre-determined goals.
- **Performance Management:** Monitor contract performance and recommend to the CO any necessary action related to delays in contract performance or the need to stop work under the contract, and document past performance by accurately characterizing the contractor's actual performance.
- **Financial Management:** Monitor the contractor's financial progress and assist the CO with contract enforcement; technical cost, schedule and performance, for all contracts. Review and as authorized, approve contractor payment requests, review interim invoices (cost reimbursement, LH and T&M contracts) to make sure charges are commensurate with observed performance. Report any discrepancies in invoices to the CO and provide documentation to support the representation.
- **Contract Reporting:** Monitor and verify contract expenditures, anticipated funding issues or over runs, contract schedule compliance and anticipated schedule delays, contract technical performance and compliance with terms and conditions of the contract to the Contracting officer in an efficient and timely manner.
- **Inspection and Acceptance:** Inspect and accept deliveries and services by inspecting deliverables and monitoring services for conformance with contract/order/agreement terms and conditions, and accept or reject them. Ensure compliance and completion by the Contractor of all required operations, including the preparation of the any forms (ex. Material Inspection and Receiving Reports) or equivalent which shall be authenticated and certified by the COTR that the services/supplies have been received and are acceptable. Process inspection report as supporting documentation for payment and maintain documentation of all inspections performed including disposition of the results.
- **Specialized Requirements:** Perform contract surveillance and ensure contractor compliance with environmental, health and safety issues for the special requirements inherent in a hazardous material,

services contracts, and construction contracts.

C. Program/Project Managers Competencies and Aligned Skills Definitions

Entry Level Project Management Competencies

Requirements Development and Management Processes

Government wide and agency-specific investment management requirements, acquisition policies, and program management strategies that support assigned missions and functions; understand how to manage risk; understanding of the many factors that influence cost, schedule, and performance; attention to lessons learned; understanding of metrics needed to manage programs and projects that deliver quality, affordable, supportable, and effective systems/products.

Aligned Skills:

- **Requirements Development Process:** Knowledge of the Agency process that is the precursor to the acquisition process and is aimed at identifying, assessing and prioritizing needed mission oriented capability gaps, and is performed in coordination with potential users. Ability to participate in, under supervision, a study of different non-system specific, or activity specific, material and non-material approaches (concepts) to provide a required capability, assessing in an operational context the performance characteristics of alternatives.
- **Concept Selection Process:** Ability to define the process and participate in, under instruction, an analysis of the alternative, and application of OMB A-94 to reduce the number of and refine the concept(s) to better meet the mission capability gap. Knowledge of the Agency process for selection of material/non-material course of action relative to satisfying the capability gap. Ability to establish performance measures and associated metrics to evaluate a possible solution. Ability to define a process that the Agency will use to select a preferred system concept (if the preferred concepts includes a material solution) that may be continued into Technology Development. Knowledge of the key features of a Technology Development Strategy that flows from the completed analysis of alternatives, studies to date, draft plans and selected material concepts.
- **Technology Development Process:** Ability to expand, if applicable, together with the user, "customer needs" into system requirements:
  - Performance parameters, objectives and thresholds (the difference being Trade Space), Affordability constraints, Scheduling constraints, Technical constraints, Environmental issues, Joint, combined, and inter-agency interoperability
  - Knowledge of a limited number of key performance parameters that are critical to the development of an effective capability.
  - Knowledge of a process to derive, if applicable, an acquisition project baseline from the user's performance and schedule requirements, and best estimates of total project cost consistent with projected funding.
  - Ability to plan technology developments and demonstrations (in coordination with systems engineering and test and evaluation personnel/organizations) needed for the capability under consideration.
  - Knowledge of the Agency policy on interoperability.
  - Knowledge of the issues in performing requirements trade-offs.
  - Knowledge of the role of an Acquisition Strategy.
  - Knowledge of the benefits of project coordination with users, milestone decision authority, industry and other projects (e.g., same, other agencies, and international), etc.
  - Knowledge of the Agency requirement to formally initiate an Acquisition Project or other project as

appropriate, employing OMB A-94 analysis and the OMB Program Assessment Rating Tool (PART).

- **Core Management Skills & Processes:** Knowledge of the process for the development of the project and defining project scope, environmental, safety, and occupational health (ESOH), and security measures.
  - Ability to participate, under instruction, in the preparation of a plan for Total Life Cycle System Management (Integrated Master Plan) that addresses phased inputs, outputs, deliverables for each phase, and internal and external project technical reviews, Congressional processes, audits, and how various project functions will be performed and managed.
  - Ability to participate, under instruction, in the preparation of an integrated master schedule, employing schedule network tools and techniques, work loading methods, and using Agency project management software to produce a schedule in one or more desired formats. Inputs to this process may include: Activity duration estimating; Work Breakdown Schedule; Project baseline; Resource calendars; Resource requirements; Activities parameters; Project integrated master plan; Ability to prepare, under instruction, a project and contract WBS structuring/ tailoring each WBS to the project and applying elements of scheduling, risk management, cost estimating, Contracting, earned value management (EVM), etc.
- **Total Ownership Cost (OMB A-94):** Recognize the role and nature of an estimate of Total Ownership Cost (TOC) prepared in Vendor format, and the need to revisit and ensure it is consistent with prior OMB A-94 and PART analysis as appropriate, considering full project scope in applying cost estimating techniques/tools to cases involving management decisions, e.g., contractor versus government logistics support:
  - Recognize estimating techniques/tools for developing rough cost estimating (Engineering Estimating, Parametric, etc.)
  - Recognize cost estimating techniques/tools to estimate: 1) ECP and modification costs; 2) project cost; and 3) Life Cycle Cost/TOC for the project.
  - Recognize an associated risk level for all cost estimating.
  - Recognize impact of various reduced funding profiles.
- **Risk & Opportunity Management:** Knowledge of the risk/opportunity management process which includes planning, assessment (identification and analysis), handling and monitoring, all to be integrated and continuously applied throughout the project.
  - Knowledge of the value of decision analysis in the selection of risk handling options/ opportunities and the need to fold those options into a detailed Integrated Master Plan and Integrated Master Schedule (IMP/IMS).
  - Recognize the need to identify and prioritize risk events to be handled.
  - Recognize the need for mitigation strategies based on risk assessments.
  - Recognize the need to evaluate mitigation strategy performance.
  - Has knowledge of application of critical chain management tools and techniques to balance risks with available resources.
  - Knowledge of the value of an organizational structure/method to track and manage risk/opportunities.
  - Knowledge of a process to use the project WBS to develop a risk management organization for the project including contractor representatives.
  - Knowledge of how a risk/opportunity management project is to be used with the management of the project.
- **Market Research (including socio-economic considerations):** Ability to perform, under instruction, using FAR Part 10 and 12 (if applicable), a business strategy for market research, the application of dual-use

technologies to market research, and use of commercial items within market research (using socioeconomic considerations throughout).

- **Communications Management:** Ability to share and communicate lessons learned. Ability to use correct and effective oral and written skills. Knowledge of the importance of the dissemination of information both internally and externally. Ability to demonstrate effective briefing skills.
- **Working Groups and Teams:** Knowledge of the functions of membership in a working group or project oriented team, including Integrated Product and Process Teams. Demonstrate knowledge of team development functions and the need to be: Open in discussions, Qualified to participate and an empowered team member, Consistent, success-oriented, proactive in participation, Continuous communications (including "up-the-line" communications), Reasoned in disagreement, Active in offering issues and committed to their early resolution.

Systems Engineering

Scientific, management, engineering and technical skills used in the performance of system planning, research and development, with an emphasis on performing and managing a technical process.

Aligned Skills:

- **Technical Management Process:** Knowledge of the nature of the decision analysis methods that will provide the basis for evaluating and selecting alternatives for decision making. Decision Analysis involves selecting the criteria for the decision and the methods to be used in conducting the analysis. Ability to develop a plan for Technical Assessment that measures technical progress and the effectiveness of plans and requirements. Activities within Technical Assessment include those associated with Technical Performance Measurement and the conduct of technical reviews. Knowledge of systems life cycle management concepts used to plan, develop, implement, operate and maintain information systems. Ability to participate in, under instruction, the execution of a Risk/Opportunity Management plan and methods applicable to a systems engineering context that examines the risks of deviating from the project plan. It will examine all aspects of the project and their relationships. The plan and methods should integrate design (performance) requirements with other life cycle issues such as manufacturing, operations, environment, safety, and occupational health considerations, and support. Knowledge of Configuration Management methods and best practices to establish and maintain consistency of a product's attributes with its requirements and product configuration information. Ability to identify the key processes employed in interface management, including the ability to trace system requirements through the software allocation architecture and use of an interface matrix. Ability to describe the content of a plan for Technical Data Management.
- **Technical Process:** Knowledge of the nature of the requirements development process for working with the user to establish and refine operational needs, attributes, performance parameters, trade-offs and constraints that flow from the needed capabilities, and then ensure that all relevant requirements are addressed. Ability to develop a process to monitor/ coordinate/participate in the validation procedures that answers the question of "Did you build the right thing?" Ability to establish a process of obtaining sets of logical solutions to improve knowledge of the defined requirements and the relationships among the requirements. Ability to define a process for monitoring and selecting Design Solution that translates the outputs of the Requirements Development and Logical Analysis processes into alternative design solutions and selects a final design solution. Knowledge of the value of a process for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the integration process, including the assembly sequence, may impose constraints on the design solution. Knowledge of processes for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the Integration process, including the assembly sequence, may impose constraints on the design solution.

Test and Evaluation (T&E)

Efficient and cost effective methods for planning, monitoring, conducting and evaluating tests of prototype, new or modified systems equipment or material, including the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to requirements and to develop metrics that demonstrate system success or failure.

Aligned Skills:

- **Integration of T&E:** Ability to determine the need for a comprehensive T&E project including Modeling and Simulation.
- **Test and Evaluation Strategy (TES):** Knowledge of the value of a comprehensive Test & Evaluation Strategy (TES) and how this document can evolve into the Test & Evaluation Master Plan (TEMP).
- **Realistic or Operational Test and Evaluation (OT&E):** Knowledge of the Agency OT&E process.

Life Cycle Logistics (LCL)

Performance-based logistic efforts that optimize total system lifecycle availability, supportability, and reliability/maintainability while minimizing cost and logistic footprint, and interoperability.

Aligned Skills:

- **Life-cycle Logistic (LCL) Management, Product Support, and Interoperability:** Ability to implement alternative logistics support practices, including supply chain functions, best public sector and commercial practices, and technology solutions. Ability to determine the need for a modular open systems approach (MOSA) where interoperability is a key LCL facilitator.

Contracting

Supervision, leadership and management processes/procedures involving the acquisition of supplies and services, construction, research and development; acquisition planning to include performance-based considerations; cost and price analysis; solicitation and selection of sources; preparation, negotiation and award of contracts; all phases of contract administration; termination options and processes for closeout of contracts; and legislation, policies, regulations and methods used in Contracting, and business and industry practices.

Aligned Skills:

- **Contract Approach:** Knowledge of a process by which the efforts of the PM and PCO, and all other personnel responsible for an acquisition, are integrated through a comprehensive plan for fulfilling the Agency need in a timely manner and at a reasonable cost.
- **Prepare Requirements & Support Documentation:** Ability to participate in pre-award actions required by FAR Subpart 7.1 Acquisition Planning, and the remainder of FAR Parts 1-12 etc., considering key and complex contract terms and conditions for the solicitation.
- **Prepare & Issue Solicitation:** Knowledge of the process for formulating pre-award policies, FAR (if applicable) Parts 5 Publicizing Contract Actions, 13 Simplified Acquisition Procedures and 14, Sealed Bidding, etc. Ability to develop a comprehensive project specification and statement of work that fully and correctly defines the project, addressing roles and missions of the government and contractor.
- **Perform Source Selection:** Knowledge of the process for formulating a source selection plan that allows for best value selection from a competitive solicitation. Knowledge of the process for structuring a formal source selection process that is commensurate to the level of procurement action to include the Source Selection Evaluation Board, Source Selection Advisory Counsel/Committee, and Source Selection Authority.
- **Administer Contract:** Knowledge of how to support contract administrative actions.

- **Performance-based Service Agreements:** Knowledge of how to negotiate for the required level of support at a cost consistent with available support funding. Ability to establish a negotiated baseline of performance with operational users, and the corresponding commercial and/or organic support providers.

Business, Cost Estimating & Financial Management

Forms of cost estimating, cost analysis, reconciliation of cost estimates, financial planning, formulating financial programs & budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM), and other methods of performance measurement.

Aligned Skills:

- **Business Financial Planning & Management:** Ability to oversee application of Total Life Cycle Systems Management (TLCSM), or a similar concept, which requires the PM to base major decisions on system-wide analyses and the life cycle consequences of those decisions, and on system performance and affordability.
- **Cost Estimating:** Knowledge of cost estimating processes, methods, techniques, analytical principles, data, confidence bands, specialized costing, application of OMB A-94, and management applications.
- **Earned Value Management (EVM):** Knowledge of earned value management (EVM) policies, methodologies, and software for performance measurement of projects. Knowledge of the Integrated Baseline Review (IBR) process. Knowledge of techniques used to determine effective project strategies when EVM indicators are yellow and/or red or cross a threshold.
- **Dept/Agency Programming, Planning and Budgeting Type System (OMB A-11):** Knowledge of how to allocate funds within appropriation categories and how to use the funds from each appropriation. Knowledge of the Department/Agency's policy/instructions for financial planning, programming, budget development, and budget execution, OMB A-11 application, including the documentation processes, which are employed in the development and decision making of a Department/Agency's total federal fiscal activity for a given fiscal period.

Leadership/Professional

Ability to lead/manage a project team to satisfactory achievement of project goals.

Aligned Skills:

- **Problem Solving:** Identifies problems; determines accuracy and relevance of information; and uses sound judgment to generate and evaluate alternatives, and make recommendations.
- **Conflict Management:** Manages and resolves conflicts, grievances, confrontations and/or disagreements in a constructive manner to minimize negative personal impact.
- **Interpersonal Skills:** Shows understanding, courtesy, tact and empathy; develops and maintains relationships; deals with difficult people; relates well to people from varied backgrounds; and is sensitive to individual differences.
- **Resilience:** Displays fortitude when making unpopular decisions.
- **Flexibility:** Is open to change and new information; adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacle; and effectively deals with ambiguity.
- **Accountability:** Holds self and others accountable for measurable high-quality, timely, and cost-effective results. Determines objectives, sets priorities and delegates work. Accepts responsibility for mistakes. Complies with established control systems and rules.
- **Written Communication:** Recognizes and uses correct English grammar, punctuation and spelling; communicates information in a succinct and organized manner; and produces written information that is appropriate for the intended audience.

- **Customer Service:** Works with customers to assess needs, provide assistance, resolve problems, satisfy expectations; and knows products and services.
- **Oral Communication:** Expresses information to individuals or groups effectively, taking into account the audience and nature of the information; makes clear and convincing presentations, listens to others; and attends to nonverbal cues.

Mid-Level/Journeyman Program and Project Management Competencies

Requirement Development and Management Processes

Government-wide and agency-specific investment management requirements, acquisition policies, and program management strategies that support assigned missions and functions through understanding how to manage risk; understanding of the many factors that influence cost, schedule, and performance; attention to lessons learned; understanding of metrics needed to manage programs and projects that deliver quality, affordable, supportable, and effective systems/products.

Aligned Skills:

- **Requirements Development Process:** Knowledge of the Agency process that is the precursor to the acquisition process and is aimed at identifying, assessing and prioritizing needed mission oriented capability gaps, and is performed in coordination with potential users. Ability to participate in, under supervision, a study of different non-system specific, or activity specific, material and non-material approaches (concepts) to provide a required capability, assessing in an operational context the performance characteristics of alternatives.
- **Concept Selection Process:** Ability to define the process and participate in, under instruction, an analysis of the alternative, and application of OMB A-94 to reduce the number of and refine the concept(s) to better meet the mission capability gap. Knowledge of the Agency process for selection of material/non-material course of action relative to satisfying the capability gap. Ability to establish performance measures and associated metrics to evaluate a possible solution. Ability to define a process that the Agency will use to select a preferred system concept (if the preferred concepts includes a material solution) that may be continued into Technology Development. Knowledge of the key features of a Technology Development Strategy that flows from the completed analysis of alternatives, studies to date, draft plans and selected material concepts.
- **Technology Development Process:** Ability to expand, if applicable, together with the user, "customer needs" into system requirements:
  - Performance parameters, objectives and thresholds (the difference being Trade Space), Affordability constraints, Scheduling constraints, Technical constraints, Environmental issues, Joint, combined, and inter-agency interoperability
  - Knowledge of a limited number of key performance parameters that are critical to the development of an effective capability.
  - Knowledge of a process to derive, if applicable, an acquisition project baseline from the user's performance and schedule requirements, and best estimates of total project cost consistent with projected funding.
  - Ability to plan technology developments and demonstrations (in coordination with systems engineering and test and evaluation personnel/organizations) needed for the capability under consideration.
  - Knowledge of the Agency policy on interoperability.

  - Knowledge of the issues in performing requirements trade-offs.
  - Knowledge of the role of an Acquisition Strategy.
  - Knowledge of the benefits of project coordination with users, milestone decision authority, industry and other projects (e.g., same, other agencies, and international), etc.
  - Knowledge of the Agency requirement to formally initiate an Acquisition Project or other project as appropriate, employing OMB A-94 analysis and the OMB Program Assessment Rating Tool (PART).
- **Core Management Skills & Processes:** Knowledge of the process for the development of the project and defining project scope, environmental, safety, and occupational health (ESOH), and security measures.
  - Ability to participate, under instruction, in the preparation of a plan for Total Life Cycle System Management (Integrated Master Plan) that addresses phased inputs, outputs, deliverables for each phase, and internal and external project technical reviews, Congressional processes, audits, and how various project functions will be performed and managed.
  - Ability to participate, under instruction, in the preparation of an integrated master schedule, employing schedule network tools and techniques, work loading methods, and using Agency project management software to produce a schedule in one or more desired formats. Inputs to this process may include: Activity duration estimating; Work Breakdown Schedule; Project baseline; Resource calendars; Resource requirements; Activities parameters; Project integrated master plan; Ability to prepare, under instruction, a project and contract WBS structuring/ tailoring each WBS to the project and applying elements of scheduling, risk management, cost estimating, Contracting, earned value management (EVM), etc.
- **Total Ownership Cost (OMB A-94):** Recognize the role and nature of an estimate of Total Ownership Cost (TOC) prepared in Vendor format, and the need to revisit and ensure it is consistent with prior OMB A-94 and PART analysis as appropriate, considering full project scope in applying cost estimating techniques/tools to cases involving management decisions, e.g., contractor versus government logistics support:
  - Recognize estimating techniques/tools for developing rough cost estimating (Engineering Estimating, Parametric, etc.)
  - Recognize cost estimating techniques/tools to estimate: 1) ECP and modification costs; 2) project cost; and 3) Life Cycle Cost/TOC for the project.
  - Recognize an associated risk level for all cost estimating.
  - Recognize impact of various reduced funding profiles.
  - Recognize costs within each applicable appropriation.
  - Recognize the need for assumptions, and why they should be valid.
  - Recognize cost policies and practices.
  - Participate, under instruction, in the preparation of a business case analysis applying cost benefit trade-offs to the project.
  - Recognize the need for appropriate indices for the year and constant year estimating.
  - Knowledge of the reasons for application of Department/Agency financial policies and directives that are applicable to the project, such as developing out-year financial plans, budgets estimated in Departmental/Agency formats, including impacts of Earned Value Management.
- **Risk & Opportunity Management:** Knowledge of the risk/opportunity management process which includes planning, assessment (identification and analysis), handling and monitoring, all to be integrated and continuously applied throughout the project.

  - Knowledge of the value of decision analysis in the selection of risk handling options/ opportunities and the need to fold those options into a detailed Integrated Master Plan and Integrated Master Schedule (IMP/IMS).
  - Recognize the need to identify and prioritize risk events to be handled.
  - Recognize the need for mitigation strategies based on risk assessments.
  - Recognize the need to evaluate mitigation strategy performance.
  - Has knowledge of application of critical chain management tools and techniques to balance risks with available resources.
  - Knowledge of the value of an organizational structure/method to track and manage risk/opportunities.
  - Knowledge of a process to use the project WBS to develop a risk management organization for the project including contractor representatives.
  - Knowledge of how a risk/opportunity management project is to be used with the management of the project.
- **Market Research (including socio-economic considerations):** Ability to perform, under instruction, using FAR Part 10 and 12 (if applicable), a business strategy for market research, the application of dual-use technologies to market research, and use of commercial items within market research (using socioeconomic considerations throughout).
- **Communications Management:** Ability to share and communicate lessons learned. Ability to use correct and effective oral and written skills. Knowledge of the importance of the dissemination of information both internally and externally. Ability to demonstrate effective briefing skills.
- **Working Groups and Teams:** Knowledge of the functions of membership in a working group or project oriented team, including Integrated Product and Process Teams. Demonstrate knowledge of team development functions and the need to be:
  - Open in discussions, qualified to participate and an empowered team member, consistent, success-oriented, proactive in participation, continuous communications (including "up-the-line" communications), reasoned in disagreement, active in offering issues and committed to their early resolution.

Systems Engineering

Scientific, management, engineering and technical skills used in the performance of system planning, research and development, with an emphasis on performing and managing a technical process.

Aligned Skills:

- **Technical Management Process:** Knowledge of the nature of the decision analysis methods that will provide the basis for evaluating and selecting alternatives for decision making. Decision Analysis involves selecting the criteria for the decision and the methods to be used in conducting the analysis. Ability to develop a plan for Technical Assessment that measures technical progress and the effectiveness of plans and requirements. Activities within Technical Assessment include those associated with Technical Performance Measurement and the conduct of technical reviews. Knowledge of systems life cycle management concepts used to plan, develop, implement, operate and maintain information systems. Ability to participate in, under instruction, the execution of a Risk/Opportunity Management plan and methods applicable to a systems engineering context that examines the risks of deviating from the project plan. It will examine all aspects of the project and their relationships. The plan and methods should integrate design (performance) requirements with other life cycle issues such as manufacturing, operations, environment, safety, and occupational health considerations, and support. Knowledge of Configuration Management methods and best practices to

establish and maintain consistency of a product's attributes with its requirements and product configuration information. Ability to identify the key processes employed in interface management, including the ability to trace system requirements through the software allocation architecture and use of an interface matrix. Ability to describe the content of a plan for Technical Data Management.

- **Technical Process:** Knowledge of the nature of the requirements development process for working with the user to establish and refine operational needs, attributes, performance parameters, trade-offs and constraints that flow from the needed capabilities, and then ensure that all relevant requirements are addressed. Ability to develop a process to monitor/ coordinate/participate in the validation procedures that answers the question of "Did you build the right thing?" Ability to establish a process of obtaining sets of logical solutions to improve knowledge of the defined requirements and the relationships among the requirements. Ability to define a process for monitoring and selecting Design Solution that translates the outputs of the Requirements Development and Logical Analysis processes into alternative design solutions and selects a final design solution. Knowledge of the value of a process for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the integration process, including the assembly sequence, may impose constraints on the design solution. Knowledge of processes for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the Integration process, including the assembly sequence, may impose constraints on the design solution.

Test and Evaluation (T&E)

Efficient and cost effective methods for planning, monitoring, conducting and evaluating tests of prototype, new or modified systems equipment or material, including the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to requirements and to develop metrics that demonstrate system success or failure.

Aligned Skills:

- **Integration of T&E:** Ability to determine the need for a comprehensive T&E project including Modeling and Simulation.
- **Test and Evaluation Strategy (TES):** Knowledge of the value of a comprehensive Test & Evaluation Strategy (TES) and how this document can evolve into the Test & Evaluation Master Plan (TEMP).
- **Realistic or Operational Test and Evaluation (OT&E):** Knowledge of the Agency OT&E process.

Life Cycle Logistics (LCL)

Performance-based logistic efforts that optimize total system life cycle availability, supportability and reliability/maintainability while minimizing cost, the logistic footprint and interoperability.

Aligned Skills:

- **Life-cycle Logistic (LCL) Management, Product Support, and Interoperability:** Ability to implement alternative logistics support practices, including supply chain functions, best public sector and commercial practices, and technology solutions. Ability to determine the need for a modular open systems approach (MOSA) where interoperability is a key LCL facilitator.

Contracting

Supervision, leadership and management processes/procedures involving the acquisition of supplies and services, construction, research and development; acquisition planning to include performance-based considerations; cost and price analysis; solicitation and selection of sources; preparation, negotiation and award of contracts; all phases of contract administration; termination options and processes for closeout of contracts; and legislation, policies,

regulations and methods used in Contracting, and business and industry practices.

Aligned Skills:

- **Contract Approach:** Knowledge of a process by which the efforts of the PM and PCO, and all other personnel responsible for an acquisition, are integrated through a comprehensive plan for fulfilling the Agency need in a timely manner and at a reasonable cost.
- **Prepare Requirements & Support Documentation:** Ability to participate in pre-award actions required by FAR Subpart 7.1 Acquisition Planning, and the remainder of FAR Parts 1-12 etc., considering key and complex contract terms and conditions for the solicitation.
- **Prepare & Issue Solicitation:** Knowledge of the process for formulating pre-award policies, FAR (if applicable) Parts 5 Publicizing Contract Actions, 13 Simplified Acquisition Procedures and 14, Sealed Bidding, etc. Ability to develop a comprehensive project specification and statement of work that fully and correctly defines the project, addressing roles and missions of the government and contractor.
- **Perform Source Selection:** Knowledge of the process for formulating a source selection plan that allows for best value selection from a competitive solicitation. Knowledge of the process for structuring a formal source selection process that is commensurate to the level of procurement action to include the Source Selection Evaluation Board, Source Selection Advisory Counsel/Committee, and Source Selection Authority.
- **Administer Contract:** Knowledge of how to support contract administrative actions.
- **Performance-based Service Agreements:** Knowledge of how to negotiate for the required level of support at a cost consistent with available support funding. Ability to establish a negotiated baseline of performance with operational users, and the corresponding commercial and/or organic support providers.

Business, Cost Estimating & Financial Management

Forms of cost estimating, cost analysis, reconciliation of cost estimates, financial planning, formulating financial programs & budgets, budget analysis/execution, benefit-cost analysis, and other methods of performance measurement.

Aligned Skills:

- **Business Financial Planning & Management:** Ability to oversee application of Total Life Cycle Systems Management (TLCSM), or a similar concept, which requires the PM to base major decisions on system-wide analyses and the life cycle consequences of those decisions, and on system performance and affordability.
- **Cost Estimating:** Knowledge of cost estimating processes, methods, techniques, analytical principles, data, confidence bands, specialized costing, application of OMB A-94, and management applications.
- **Financial Reporting & Oversight:** Provides guidance on preparing the FY Budget submission and includes instructions on budget execution.
- **Earned Value Management (EVM):** Knowledge of earned value management (EVM) policies, methodologies, and software for performance measurement of projects. Knowledge of the Integrated Baseline Review (IBR) process. Knowledge of techniques used to determine effective project strategies when EVM indicators are yellow and/or red or cross a threshold.
- **Dept/Agency Programming, Planning and Budgeting Type System (OMB A-11):** Knowledge of how to allocate funds within appropriation categories and how to use the funds from each appropriation. Knowledge of the Department/Agency's policy/instructions for financial planning, programming, budget development, and budget execution, OMB A-11 application, including the documentation processes, which are employed in the development and decision making of a Department/Agency's total federal fiscal activity for a given fiscal period.

Leadership/Professional

Ability to lead/manage a project team to satisfactory achievement of project goals.

Aligned Skills:

- **Partnering:** Develops networks and builds alliances; collaborates across boundaries to build strategic relationships and achieve common goals.
- **Conflict Management:** Manages and resolves conflicts, grievances, confrontations and/or disagreements in a constructive manner to minimize negative personal impact.
- **Team Building/IPT:** Inspires and fosters team commitment, spirit, pride, and trust. Facilitates cooperation and motivates team members to accomplish group goals.
- **Political Savvy:** Identifies the internal and external politics that impact the work of the organization. Perceives organizational and political reality and acts accordingly.
- **Strategic Thinking:** Formulates objectives and priorities, and implements plans consistent with the long-term interests of the organization in a global environment. Capitalizes on opportunities and manages risks.
- **Decisiveness:** Makes well-informed, effective, and timely decisions, even when data are limited or solutions produce unpleasant consequences; perceives the impact and implications of decisions.
- **Creativity/Innovation:** Develops new insights into situations; questions conventional approaches; encourages new ideas and innovations; designs and implements new or cutting edge programs/processes.
- **External Awareness:** Understands and keeps up-to-date on local, national, and international policies and trends that affect the organization and shape stakeholders' views; is aware of the organization's impact on the external environment.
- **Developing Others:** Develops the ability of others to perform and contribute to the organization by providing ongoing feedback and by providing opportunities to learn through formal and informal methods.
- **Entrepreneurship:** Positions the organization for future success by identifying new opportunities; builds the organization by developing or improving products or services. Takes calculated risks to accomplish organizational objectives.
- **Leveraging Diversity:** Fosters an inclusive workplace where diversity and individual differences are valued and leveraged to achieve the vision and mission of the organization.
- **Influencing/Negotiating:** Persuades others to accept recommendations, cooperate, or change their behavior; work with others towards an agreement; negotiates to find mutually acceptable solutions.

Senior/Expert Level Program Management Competencies

Requirements Development and Management Processes

Government-wide and agency-specific investment management requirements, acquisition policies, and program management strategies that support assigned missions and functions through understanding how to manage risk; understanding of the many factors that influence cost, schedule, and performance; attention to lessons learned; understanding of metrics needed to manage programs and projects that deliver quality, affordable, supportable, and effective systems/products.

Aligned Skills:

- **Requirements Development Process:** Knowledge of the Agency process that is the precursor to the acquisition process and is aimed at identifying, assessing and prioritizing needed mission oriented capability

gaps, and is performed in coordination with potential users. Ability to participate in, under supervision, a study of different non-system specific, or activity specific, material and non-material approaches (concepts) to provide a required capability, assessing in an operational context the performance characteristics of alternatives.

- **Concept Selection Process:** Ability to define the process and participate in, under instruction, an analysis of the alternative, and application of OMB A-94 to reduce the number of and refine the concept(s) to better meet the mission capability gap. Knowledge of the Agency process for selection of material/non-material course of action relative to satisfying the capability gap. Ability to establish performance measures and associated metrics to evaluate a possible solution. Ability to define a process that the Agency will use to select a preferred system concept (if the preferred concepts includes a material solution) that may be continued into Technology Development. Knowledge of the key features of a Technology Development Strategy that flows from the completed analysis of alternatives, studies to date, draft plans and selected material concepts.
- **Technology Development Process:** Ability to expand, if applicable, together with the user, "customer needs" into system requirements:
  - Performance parameters, objectives and thresholds (the difference being Trade Space), Affordability constraints, Scheduling constraints, Technical constraints, Environmental issues, Joint, combined, and inter-agency interoperability
  - Knowledge of a limited number of key performance parameters that are critical to the development of an effective capability.
  - Knowledge of a process to derive, if applicable, an acquisition project baseline from the user's performance and schedule requirements, and best estimates of total project cost consistent with projected funding.
  - Ability to plan technology developments and demonstrations (in coordination with systems engineering and test and evaluation personnel/organizations) needed for the capability under consideration.
  - Knowledge of the Agency policy on interoperability.
  - Knowledge of the issues in performing requirements trade-offs.
  - Knowledge of the role of an Acquisition Strategy.
  - Knowledge of the benefits of project coordination with users, milestone decision authority, industry and other projects (e.g., same, other agencies, and international), etc.
  - Knowledge of the Agency requirement to formally initiate an Acquisition Project or other project as appropriate, employing OMB A-94 analysis and the OMB Program Assessment Rating Tool (PART).
- **Core Management Skills & Processes:** Knowledge of the process for the development of the project and defining project scope, environmental, safety, and occupational health (ESOH), and security measures.
  - Ability to participate, under instruction, in the preparation of a plan for Total Life Cycle System Management (Integrated Master Plan) that addresses phased inputs, outputs, deliverables for each phase, and internal and external project technical reviews, Congressional processes, audits, and how various project functions will be performed and managed.
  - Ability to participate, under instruction, in the preparation of an integrated master schedule, employing schedule network tools and techniques, work loading methods, and using Agency project management software to produce a schedule in one or more desired formats. Inputs to this process may include: Activity duration estimating; Work Breakdown Schedule; Project baseline; Resource calendars; Resource requirements; Activities parameters; Project integrated master plan; Ability to prepare, under instruction, a project and contract WBS structuring/ tailoring each WBS to the project and applying elements of scheduling, risk management, cost estimating, Contracting, earned value management

(EVM), etc.

- **Total Ownership Cost (OMB A-94):** Recognize the role and nature of an estimate of Total Ownership Cost (TOC) prepared in Vendor format, and the need to revisit and ensure it is consistent with prior OMB A-94 and PART analysis as appropriate, considering full project scope in applying cost estimating techniques/tools to cases involving management decisions, e.g., contractor versus government logistics support:
  - Recognize estimating techniques/tools for developing rough cost estimating (Engineering Estimating, Parametric, etc.)
  - Recognize cost estimating techniques/tools to estimate: 1) ECP and modification costs; 2) project cost; and 3) Life Cycle Cost/TOC for the project.
  - Recognize an associated risk level for all cost estimating.
  - Recognize impact of various reduced funding profiles.
  - Recognize costs within each applicable appropriation.
  - Recognize the need for assumptions, and why they should be valid.
  - Recognize cost policies and practices.
  - Participate, under instruction, in the preparation of a business case analysis applying cost benefit trade-offs to the project.
  - Recognize the need for appropriate indices for the year and constant year estimating.
  - Knowledge of the reasons for application of Department/Agency financial policies and directives that are applicable to the project, such as developing out-year financial plans, budgets estimated in Departmental/Agency formats, including impacts of Earned Value Management.
  - Participate, under instruction, in the preparation of a business case analysis applying cost benefit trade-offs to the project.
  - Recognize the need for appropriate indices for the year and constant year estimating.
  - Knowledge of the reasons for application of Department/Agency financial policies and directives that are applicable to the project, such as developing out-year financial plans, budgets estimated in Departmental/Agency formats, including impacts of Earned Value Management.
- **Risk & Opportunity Management:** Knowledge of the risk/opportunity management process which includes planning, assessment (identification and analysis), handling and monitoring, all to be integrated and continuously applied throughout the project. Knowledge of the value of decision analysis in the selection of risk handling options/ opportunities and the need to fold those options into a detailed Integrated Master Plan and Integrated Master Schedule (IMP/IMS).
- **Market Research (including socio-economic considerations):** Ability to perform, under instruction, using FAR Part 10 and 12 (if applicable), a business strategy for market research, the application of dual-use technologies to market research, and use of commercial items within market research (using socioeconomic considerations throughout).
- **Communications Management:** Ability to share and communicate lessons learned. Ability to use correct and effective oral and written skills. Knowledge of the importance of the dissemination of information both internally and externally. Ability to demonstrate effective briefing skills.
- **Working Groups and Teams:** Knowledge of the functions of membership in a working group or project oriented team, including Integrated Product and Process Teams. Demonstrate knowledge of team development functions and the need to be:
  - Open in discussions, Qualified to participate and an empowered team member, Consistent, success-

oriented, proactive in participation, Continuous communications (including "up-the-line" communications), Reasoned in disagreement, Active in offering issues and committed to their early resolution.

Systems Engineering

Recognize, apply, and manage and evaluate the application of the scientific, management, engineering and technical skills used in the performance of systems planning, research and development.

Aligned Skills:

- **Technical Management Process:** Knowledge of the nature of the decision analysis methods that will provide the basis for evaluating and selecting alternatives for decision making. Decision Analysis involves selecting the criteria for the decision and the methods to be used in conducting the analysis. Ability to develop a plan for Technical Assessment that measures technical progress and the effectiveness of plans and requirements. Activities within Technical Assessment include those associated with Technical Performance Measurement and the conduct of technical reviews. Knowledge of systems life cycle management concepts used to plan, develop, implement, operate and maintain information systems. Ability to participate in, under instruction, the execution of a Risk/Opportunity Management plan and methods applicable to a systems engineering context that examines the risks of deviating from the project plan. It will examine all aspects of the project and their relationships. The plan and methods should integrate design (performance) requirements with other life cycle issues such as manufacturing, operations, environment, safety, and occupational health considerations, and support. Knowledge of Configuration Management methods and best practices to establish and maintain consistency of a product's attributes with its requirements and product configuration information. Ability to identify the key processes employed in interface management, including the ability to trace system requirements through the software allocation architecture and use of an interface matrix. Ability to describe the content of a plan for Technical Data Management.
- **Technical Process:** Knowledge of the nature of the requirements development process for working with the user to establish and refine operational needs, attributes, performance parameters, trade-offs and constraints that flow from the needed capabilities, and then ensure that all relevant requirements are addressed. Ability to develop a process to monitor/ coordinate/participate in the validation procedures that answers the question of "Did you build the right thing?" Ability to establish a process of obtaining sets of logical solutions to improve knowledge of the defined requirements and the relationships among the requirements. Ability to define a process for monitoring and selecting Design Solution that translates the outputs of the Requirements Development and Logical Analysis processes into alternative design solutions and selects a final design solution. Knowledge of the value of a process for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the integration process, including the assembly sequence, may impose constraints on the design solution. Knowledge of processes for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the Integration process, including the assembly sequence, may impose constraints on the design solution.

Test and Evaluation (T&E)

Efficient and cost effective methods for planning, monitoring, conducting and evaluating tests of prototype, new or modified systems equipment or material, including the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to requirements and to develop metrics that demonstrate system success or failure.

Aligned Skills:

- **Integration of T&E:** Ability to determine the need for a comprehensive T&E project including Modeling and Simulation.

- **Test and Evaluation Strategy (TES):** Knowledge of the value of a comprehensive Test & Evaluation Strategy (TES) and how this document can evolve into the Test & Evaluation Master Plan (TEMP).
- **Realistic or Operational Test and Evaluation (OT&E):** Knowledge of the Agency OT&E process.

Life Cycle Logistics (LCL)

Performance-based logistic efforts that optimize total system life cycle availability, supportability and reliability/maintainability while minimizing cost, the logistic footprint and interoperability.

Aligned Skills:

- **Life-cycle Logistic (LCL) Management, Product Support, and Interoperability:** Ability to implement alternative logistics support practices, including supply chain functions, best public sector and commercial practices, and technology solutions. Ability to determine the need for a modular open systems approach (MOSA) where interoperability is a key LCL facilitator.

Contracting

Supervision, leadership and management processes/procedures involving the acquisition of supplies and services, construction, research and development; acquisition planning to include performance-based considerations; cost and price analysis; solicitation and selection of sources; preparation, negotiation and award of contracts; all phases of contract administration; termination options and processes for closeout of contracts; and legislation, policies, regulations and methods used in Contracting, and business and industry practices.

Aligned Skills:

- **Contract Approach:** Knowledge of a process by which the efforts of the PM and PCO, and all other personnel responsible for an acquisition, are integrated through a comprehensive plan for fulfilling the Agency need in a timely manner and at a reasonable cost.
- **Prepare Requirements & Support Documentation:** Ability to participate in pre-award actions required by FAR Subpart 7.1 Acquisition Planning, and the remainder of FAR Parts 1-12 etc., considering key and complex contract terms and conditions for the solicitation.
- **Prepare & Issue Solicitation:** Knowledge of the process for formulating pre-award policies, FAR (if applicable) Parts 5 Publicizing Contract Actions, 13 Simplified Acquisition Procedures and 14, Sealed Bidding, etc. Ability to develop a comprehensive project specification and statement of work that fully and correctly defines the project, addressing roles and missions of the government and contractor.
- **Perform Source Selection:** Knowledge of the process for formulating a source selection plan that allows for best value selection from a competitive solicitation. Knowledge of the process for structuring a formal source selection process that is commensurate to the level of procurement action to include the Source Selection Evaluation Board, Source Selection Advisory Council/Committee, and Source Selection Authority.
- **Administer Contract:** Knowledge of how to support contract administrative actions.
- **Performance-based Service Agreements:** Knowledge of how to negotiate for the required level of support at a cost consistent with available support funding. Ability to establish a negotiated baseline of performance with operational users, and the corresponding commercial and/or organic support providers.

Business, Cost Estimating & Financial Management

Forms of cost estimating, cost analysis, reconciliation of cost estimating, financial planning, formulating financial projects and budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM), and other methods of performance measurement.

Aligned Skills:

- **Business Financial Planning & Management:** Ability to oversee application of Total Life Cycle Systems Management (TLCSM), or a similar concept, which requires the PM to base major decisions on system-wide analyses and the life cycle consequences of those decisions, and on system performance and affordability.
- **Cost Estimating:** Knowledge of cost estimating processes, methods, techniques, analytical principles, data, confidence bands, specialized costing, application of OMB A-94, and management applications.
- **Earned Value Management (EVM):** Knowledge of earned value management (EVM) policies, methodologies, and software for performance measurement of projects. Knowledge of the Integrated Baseline Review (IBR) process. Knowledge of techniques used to determine effective project strategies when EVM indicators are yellow and/or red or cross a threshold.
- **Dept/Agency Programming, Planning and Budgeting Type System (OMB A-11):** Knowledge of how to allocate funds within appropriation categories and how to use the funds from each appropriation. Knowledge of the Department/Agency's policy/instructions for financial planning, programming, budget development, and budget execution, OMB A-11 application, including the documentation processes, which are employed in the development and decision making of a Department/Agency's total federal fiscal activity for a given fiscal period.

Leadership/Professional

Ability to lead/manage a project team to satisfactory achievement of project goals.

Aligned Skills:

- **Strategic Thinking:** Formulates objectives and priorities, and implements plans consistent with the long-term interests of the organization in a global environment. Capitalizes on opportunities and manages risks.
- **External Awareness:** Understands and keeps up-to-date on local, national, and international policies and trends that affect the organization and shape stakeholders' views; is aware of the organization's impact on the external environment.
- **Entrepreneurship:** Positions the organization for future success by identifying new opportunities; builds the organization by developing or improving products or services. Takes calculated risks to accomplish organizational objectives.
- **Vision:** Takes a long-term view and builds a shared vision with others; acts as a catalyst for organizational change. Influences others to translate vision into action.

D. Survey Content

Demographic Information

Q1: Please indicate the Federal Acquisition Community position or role that is your current area of responsibility from the drop-down list.

1. FAC-Contracting
2. FAC-Contract Officer Technical Representative
3. FAC-Program/Project Manager

Q1b: If you currently serve as a FAC-COTR or FAC-PPM, please enter your four digit job series using the drop-down lists below.

GS Job Series Number	0-2	0-9	0-9	0-9
WG Series				
Foreign Service Series				

If you are military personnel not employed by DoD but performing the duties of a PPM or COTR, check here. ☐

Q1c: If you are part of the GS-1102 job series, please select your title from the drop-down list

1. Contracting Specialist
2. Contracting Officer
3. Cost/Price Analyst
4. Other
5. Procurement Analysis
6. Small Business Specialist

If you are military personnel not employed by DoD but performing the duties of a PPM or COTR, check here. ☐

Q1d: Check here if your role and title are supervisory. ☐

(If Q1d is checked, branch to manager questions.)

Q2: Agency/Department

Q3: Component

Q4: Sub-Agency/Office

Q5: Please select your current grade level or equivalent pay band

Q6: Please select the highest level of education you have completed

Q7: Please select your current age from the ranges provided

Q8: Please select your gender

Q9: Would you describe your racial or ethnic background as: This question was optional.

- Hispanic or Latino
- American Indian or Alaska Native
- Asian
- Black or African American (Non-Hispanic)
- Native Hawaiian or Other Pacific Islander
- White (Non-Hispanic)
- Other/Unspecified

Q10: How many total years of federal service do you have?

Q11: Before you entered your current job series or role, were you:

1. Employed in another Federal government occupational series
2. Employed in similar job in State/Local government
3. Employed/serving in a similar position as active duty military
4. Employed in a similar job in the private sector
5. Employed in a similar job in a Non Government Organization
6. Employed in a similar job in an education setting (university/college)
7. Employed in a non-Contracting/acquisition related job in the private sector
8. A student
9. Unemployed
10. Other (**If this option is selected, include a space to indicate where they learned about the career in acquisition**)

Q12: Select from the drop-down list what state you were located in before you entered you current position. (Included a drop down list of all US states and US territories)

Q13: Indicate how you learned about your current position in the Federal acquisition workforce by selecting from the following options. More than one option can be selected

1. Career fair
2. Colleague
3. Friend
4. Job opening posted on government website
5. Job openings posted on a non-government website
6. Periodicals (newspaper, magazine, newsletter)
7. Recruiter
8. Other (**If this option is selected, include a space to indicate where they learned about the career in acquisition**)

Q14: How many total years of federal acquisition experience do you have including Contracting roles/duties, COTR and/or PPM duties?

Q15: How long do you expect to continue to work for the federal government in acquisition related work?

Q16: How long do you expect to continue to work for your current agency in acquisition related work?

Q17: How many years of acquisition experience do you have outside of the Federal government?
Note: Private sector Contracting experience refers to working for private industry (e.g., a private company, consultant or support contractor to the Government, and/or academia).

Q18: How soon are you eligible for retirement?

Q19: How soon do you plan on retiring?

Environmental/Managerial Questions

Respondents were asked to indicate their agreement or disagreement with the environmental/managerial statements below.

5 – Strongly Agree

4 – Agree

3 – Neither Agree nor Disagree

2 – Disagree

1 – Strongly Disagree

Environmental Questions

Item	Environmental Question
1	My supervisor generally approves my requests for training to maintain or increase my certification level or to satisfy my continuous learning requirements.
2	If my training request is denied, it is because my organization does not have the funds.
3	If my training request is denied, it is because my workload does not allow me the time.
4	My work duties allow me the opportunity to apply the training I receive.
5	I am actively engaged in my Individual Development Planning.
6	My supervisor plays a key role in my Individual Development Planning.
7	I have a mentor/coach.
8	I do not have a mentor/coach, but would benefit from one.
9	My performance review gives me information about my competency gaps and training needs.
10	I have the opportunity to work on different assignments or in new areas of acquisition to broaden my expertise.
11	I would benefit from working on different assignments or in new areas of acquisition to broaden my expertise.
12	A rotational assignment outside my immediate organization would broaden my expertise.
13	I am provided dedicated work time to complete on-line training courses.

Managerial Questions

Item	Managerial Questions
1	There is adequate time for my employees to participate in training.
2	My supervisor generally supports requests for my employees to participate in training.
3	I am able to provide adequate on-the-job training and coaching to develop my employees effectively.
4	My workload allows me the time to increase my managerial and leadership skills by attending training and workshops.
5	My workload allows me the opportunity to manage my employees' development effectively.
6	My workload allows me the time to administer my Contracting duties effectively and professionally.
7	I play a key role in my employees' Individual Development Planning.
8	I have adequate resources and support to provide the training my employees need.
9	I provide feedback and information to my employees about their competencies and training needs during their performance reviews.
10	My team is adequately staffed to allow time to complete operations and also provide

Item	Managerial Questions
	mentoring/coaching and on-the-job training.
11	I would support my employees in identifying rotational assignments.