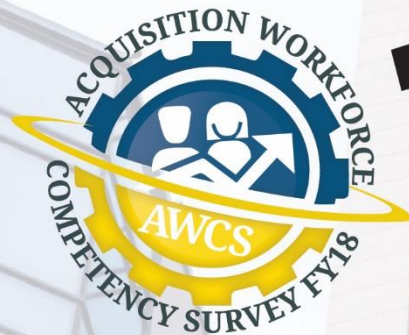


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ACQUISITION WORKFORCE  
COMPETENCY SURVEY REPORT



# Executive Summary

This report examines the data collected from the fiscal year 2018 (FY18) Acquisition Workforce Competency Survey (AWCS), administered collaboratively by the Office of Federal Procurement Policy and the Federal Acquisition Institute (FAI) to federal civilian agency acquisition workforce members from October 10, 2017 to November 17, 2017. The design and administration of the FY18 AWCS was guided by the following objectives:

- Identify the strengths and priority training needs of the federal civilian acquisition workforce;
- Gauge the developmental progress of the acquisition community in targeted areas; and
- Improve acquisition human capital planning.

The survey had a record number of responses, an increase of 83% over FY16. Respondents from all 23 civilian Chief Financial Officers Act agencies (except for the Department of Defense) and over 26 additional small agencies responded to the survey. Thirty-one percent of Federal Acquisition Certification (FAC) holders participated in the survey. The FY18 AWCS process linked respondents' Federal Acquisition Institute Training Application System (FAITAS) profiles to the survey, making this the first time FAI was able to verify respondents' certification levels and areas.

As a result, responses to the FY18 survey were both more representative of the workforce as a whole and more valid than previous AWCS iterations. It is important to note that the changes in the method also make historical comparisons difficult.

FAI continually strives to ensure acquisition workforce professionals broaden their skills and capabilities to become more effective and efficient in their roles to meet government-wide needs and their organizations' missions. This survey revealed several key findings about current acquisition workforce strengths and competency gaps. Competencies that scored high also rated higher on time spent, whereas competencies that scored low rated lower on time spent.

- Proficiency in these competencies rated highest:
  - *Issuing changes and modifications, awarding contracts, and competition*, among FAC-C holders
  - *Inspection and acceptance and business acumen and communication*, among FAC-COR holders
  - *Leadership*, among FAC-P/PM holders.
- Proficiency in these competencies rated lowest:
  - *Negotiating forward pricing rates agreements and contracting in contingent or combat environments*, among FAC-C holders
  - *Pre-award communication and contract negotiation*, among FAC-COR holders
  - *Systems engineering*, among FAC-P/PM holders.

- Workforce satisfaction increased over FY16 levels. Within the acquisition workforce, FAC-C holders are the most satisfied, followed closely by FAC-COR holders.

The findings also have implications for ongoing workforce development efforts.

- Proficiency declined across all FAC competencies and across the four business competencies measured in previous years, although changes in survey methodology may make direct comparisons less reliable.
- Overall, the highest and lowest rated competency proficiencies were consistent with past years, and FAC holders maintained an intermediate to advanced proficiency range with respect to business competencies.
- Time spent in a given competency was a strong predictor for competency proficiency for all FAC areas.

The FY18 AWCS results also can inform acquisition workforce planning across federal agencies.

- The demographic composition of the acquisition workforce remains similar to FY16.
- The most common age category among FAC holders was 51–55 years, the most common pay grade was GS-13, and the most common range of acquisition experience was 6–10 years.
- Millennials account for 11.3% of the acquisition workforce.

In collaboration with stakeholders, FAI is committed to supporting and strengthening professional development of the acquisition workforce community. The results from this survey provide federal civilian agencies with useful data for future training and development decisions that can further strengthen this critical sector of the federal workforce. FAI will continue to champion the acquisition workforce and its capabilities to conquer federal acquisition challenges—today and tomorrow.

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# Introduction

In partnership with the Office of Federal Procurement Policy (OFPP), the Federal Acquisition Institute (FAI) administered the fiscal year 2018 (FY18) Acquisition Workforce Competency Survey (AWCS) with three primary objectives:

- Identify the strengths and priority training needs of the federal civilian acquisition workforce;
- Gauge the developmental progress of the acquisition community in targeted areas; and
- Improve acquisition human capital planning actions and activities to develop an agile and qualified acquisition workforce.

Data collected from the survey will be used at government and agency levels to inform strategic workforce planning. The FY18 AWCS is the sixth iteration of this biennial assessment that collects competency proficiency data across the three primary Federal Acquisition Certification (FAC) areas: contracting professionals (FAC-C holders), contracting officers' representatives (FAC-COR holders), and project and program managers (FAC-P/PM holders). Since 2008, the survey has been administered to include FAC-C holders as well as FAC-COR holders and FAC-P/PM holders. The FY18 AWCS also collected information on job satisfaction, and on supervisors who oversee acquisition-related employees.

Data from the AWCS and other available sources are taken into account by government acquisition leaders—including OFPP, FAI, the FAC Functional Advisory Boards, and agency acquisition executives—when determining priority skill gaps and making workforce development decisions.

The FY18 AWCS results can help acquisition workforce leaders throughout the federal government address the cross-agency priority goals that the Trump Administration released under the President's Management Agenda in March 2018. The Agenda outlines new cross-agency priority goals, including developing a workforce for the 21st century, which address the need for the government to ensure the workforce has the right skills and size to meet respective agencies' missions.<sup>1</sup>

Data collected from this assessment can help agency leaders develop a stronger acquisition workforce by identifying skill gaps that exist within the acquisition workforce. Additionally, the AWCS data can inform workforce planning and development decisions that will affect the workforce of tomorrow and be used to gauge the progress of the acquisition workforce in gaining proficiency.

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<sup>1</sup> <https://www.whitehouse.gov/wp-content/uploads/2018/03/Presidents-Management-Agenda.pdf>.

# Survey Methodology and Structure

## Overview

This chapter provides an overview of the methodology used to administer the survey, clean the data, and analyze the survey results. It also explains the survey structure and content included in each section. In FY18, the method, structure, and analysis of the survey changed. These changes are summarized below.

- FAI was able to verify respondents' self-reported certification areas and levels, against the Federal Acquisition Institute Training Application System (FAITAS) records, ensuring that only verified responses were included in the analysis.
- FAI was able to include in the analysis partial responses from those that started, but did not complete the survey.
- The rating scale for "Time Spent" in the Competencies section offered a response selection of None (0) instead of N/A.
- Additional competencies were added to the FAC-C and business competency sections to align with the Department of Defense (DoD) Contracting competency model which civilian agencies have adopted.
- Additional demographic and employment characteristics were analyzed for inclusion in the AWCS report.
- Deliberate outreach and communication strategies were implemented to increase awareness which included automated notifications to the acquisition workforce members.

## Methodology

The FY18 AWCS was administered to the federal civilian acquisition community from October 10 to November 17, 2017. To include both FAITAS and non-FAITAS users (the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), and Department of State (DOS) FAC-COR holders), two versions of the survey were used. Version 1 was administered to all civilian agency acquisition workforce members and their supervisors who have FAITAS accounts using unique survey links for each workforce member. Version 2 was administered by agency acquisition career managers (ACMs) using a generic survey link sent via email for all remaining workforce members. Version 1 took approximately 30 minutes to complete, and Version 2 took approximately 40 minutes to complete. Workforce members received one continuous learning point upon completing the survey.

To promote participation throughout the acquisition workforce community, FAI executed a multi-phased communication strategy. FAI's communications plan included:

- Announcements on FAI.gov and FAI's social media forums, such as Twitter and Facebook;
- Communications from acquisition workforce leaders such as ACMs and Senior Procurement Executives through agency-specific communication channels; and

- Weekly non-respondent email notifications using engaging subject lines to all registered FAITAS users.<sup>2</sup>

The FY18 AWCS received 25,562 complete survey responses, including 25,191 from the Version 1 survey and 371 from the Version 2 survey. Responses of those who completed some sections of the survey but did not complete the entire survey were included in the analysis as partial responses. The analysis included 11,274 partial responses, bringing the total number of responses received to 36,836.

The response data was cleaned before the responses were analyzed. Within agencies, bureaus with fewer than 10 complete responses were recoded as “other,” following the Office of Personnel Management’s (OPM’s) practice for handling small sub-bureaus. For the FAITAS survey, ages were calculated based on birth dates and grouped into age categories. All categorical response options (for example none, basic, and foundational) were transformed into numerical values for quantitative analysis. All partial responses were cleaned to remove incomplete sections. The process of handling partial responses is further explained in Appendix A.

For an individual’s survey response to be analyzed, two conditions had to be met:



1. The individual had to have fully **completed the section**. (Not all respondents completed every section because certain sections were not relevant to all respondents and because some respondents chose not to respond to certain sections.)
2. The individual’s certification responses had to be **verified**. The certification and level reported by respondents had to match the FAC certification and level listed in FAITAS. Those who indicated their status as “In Progress Level 1” (referring to those who are working towards their Level 1 certifications, “In Progress” in this report) were also included as verified respondents, as were all Version 2 survey respondents.

<sup>2</sup> A/B testing was used to maximize survey response. FAITAS users randomly received survey reminders with one of two different subject lines. The FAITAS communications team analyzed response rates to inform future subject lines.

Further details on these criteria can be found in Appendix A.

Figure 1 shows the number of responses that met each criteria, and which were ultimately included in the analysis. FAC-C, FAC-COR, and FAC-P/PM holders refer to those who are verified holders of a FAC in that certification area. FAC holders refer to those who hold any of the three certifications.

*Figure 1: FY18 AWCS Total Response Rates by Section*

Section	Completed the Section	Responses Included	Respondents' Responses Analyzed
<b>Demographics</b>	36,836	31,951	FAC Holders
<b>FAC-C Competencies</b>	6,324	4,438	FAC-C Holders
<b>FAC-COR Competencies</b>	16,517	14,598	FAC-COR Holders
<b>FAC-P/PM Competencies</b>	3,790	2,218	FAC-P/PM Holders
<b>Business Competencies</b>	26,311	22,444	FAC Holders
<b>Supervisors</b>	4,028	4,028	Self-reported Supervisors
<b>Retention</b>	25,562	22,142	FAC Holders

After the data was fully cleaned, the Version 1 and Version 2 datasets were merged. The combined dataset was transformed into a master government-wide results Excel workbook. Workbooks for individual agencies were created from the master workbook and shared with agency ACMs in February 2018. Data from the master workbook was used to conduct the analysis for this report.

## Survey Structure

The FY18 survey comprised five primary components: Demographics and Program Area Characteristics, Competencies and Performance Outcomes, Business Competencies, Supervisory Statements, and Retention Statements. This section provides an overview of each primary survey component and its scale, along with an analysis of the impact of the revised survey structure. The full text of the FY18 AWCS can be found at the following links:

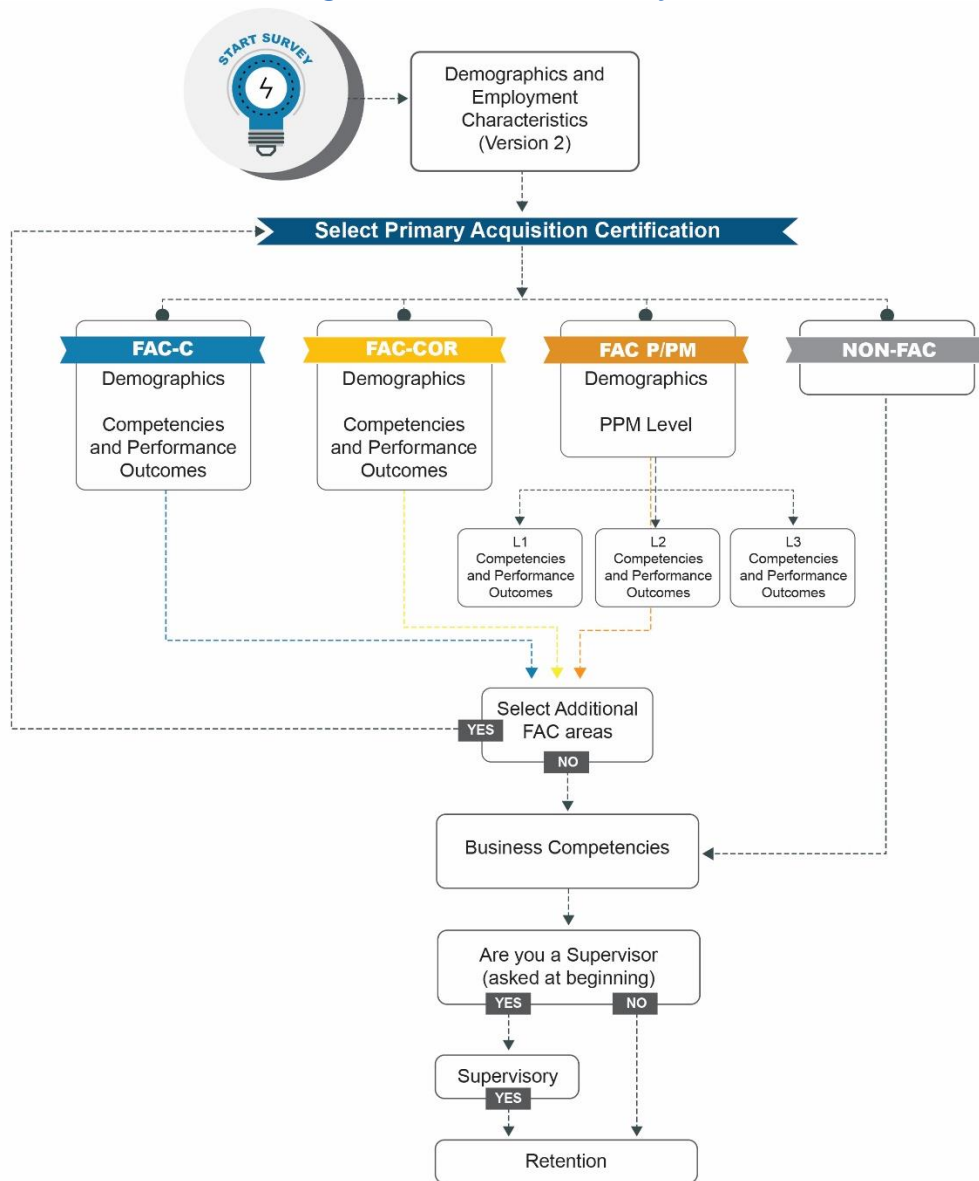
[Version 1 Survey Link](#)

[Version 2 Survey Link](#)

The FY18 AWCS, like previous iterations, is a branched survey. This means that a respondent's path through the survey, and the questions they see, are determined by their responses to certain questions. Figure 2 depicts the different survey paths.



Figure 2: Branched Survey Path



### Demographics and Program Area Characteristics

This component consists of questions relating to a participant’s employment characteristics (such as grade, job series, agency bureau, etc.), demographics (such as age range), and certification status (such as FAC area and certification level). Additional questions were presented based on a respondent’s self-reported FAC area.<sup>3</sup>

<sup>3</sup> For the Version 1 survey, many demographic and program area characteristics were imported directly from the respondent’s FAITAS account, resulting in a shorter survey.

## Competencies and Performance Outcomes

Questions within this section of the survey were based on a respondent's identification with one of three FAC areas: FAC-C, FAC-COR, or FAC-P/PM. Respondents who hold multiple certifications were given the opportunity to self-report their proficiency and their time spent for up to two FAC areas. Each area contains a set of technical competencies (which, for the purpose of this report, will be referred to as competencies) and associated performance outcomes for which respondents were asked to rate their proficiencies on a six-point scale and their time spent on a four-point scale.<sup>4</sup> The performance outcomes for FAC-C and FAC-COR are the same in each of the three levels; the performance outcomes for FAC-P/PM differ at each level. The proficiency and time spent scales are shown below.

### Proficiency Scale

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

### Time Spent Scale

- 0) **None:** This competency/skill is not relevant for my current position.
- 1) **Minimal:** I spend very little time on this competency/skill in my normal work activities.
- 2) **Moderate:** I spend a fair amount of time on this competency/skill in my normal work activities.
- 3) **Extensive:** I spend a large portion of my time on this competency/skill in my normal work activities.

While the proficiency scale is the same as in FY16, the time spent scale changed. The FY18 survey provided a new option of "None (0)", in place of the FY16 survey option of "N/A. This competency/skill is not relevant for my current position." "N/A" responses were omitted from the FY16 analysis.

## Business Competencies

Respondents were asked to rate their level of proficiency across 10 business competencies—the fundamental skills that help support sound acquisition practices—on

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<sup>4</sup> Performance Outcomes are behavioral terms that define the core competencies. For example, a FAC-C competency is *Solicitation of Offers* and a performance outcome under that competency is *Publicize proposed procurements to promote competition*.

the same six-point scale used for FAC competencies. Between FY16 and FY18, the business competency model increased from 6 to 10 competencies.<sup>5</sup> The 10 business competencies are accountability, customer service, decisiveness, flexibility, interpersonal skills, oral communication, problem solving, resilience, technical credibility, and written communication. The business competencies' questions were the same for all three FAC areas.

### Acquisition Workforce Supervisors

This section of the survey was only shown to survey respondents who self-identified as supervisors to acquisition-related staff members. The questions focused on supervisors' perceptions of their acquisition-related workforces. Supervisors were asked to indicate the size of their acquisition-related workforce and to rate their workforce, on a five-point agreement scale, for each of eight statements. The agreement scale is as follows:

#### *Agreement Scale*

- 1) Strongly Disagree**
- 2) Disagree**
- 3) Neither Agree Nor Disagree**
- 4) Agree**
- 5) Strongly Agree**

### Retention Statements

The statements within this section of the survey focused on the workforce's satisfaction with various aspects of their job, including compensation and awards, acquisition job/role, agency senior leadership, immediate supervisor, acquisition-related work environment, professional training and development, and work-life balance. The statements were similar to those included in the annual Federal Employee Viewpoint Survey (FEVS). The five-point satisfaction scale is as follows:

#### *Satisfaction Scale*

- 1) Very Dissatisfied**
- 2) Dissatisfied**
- 3) Neither Satisfied Nor Dissatisfied**
- 4) Satisfied**
- 5) Very Satisfied**

### Impact of Methodology and Survey Structure Changes

Although the changes to the FY18 survey were beneficial, they do affect the survey results and limit how well they can be compared to prior years. By using more interesting email subject lines and sending weekly reminders to non-respondents, the communications team sought to increase response rates among FAITAS users. FAI also included partially completed survey responses in the analysis, increasing the number of overall responses that could be analyzed and providing valuable demographic and competency data. Because of the FY18 improvements, FAI received

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<sup>5</sup> Of the 10 business competencies used in FY18, 4 were used in FY16 and 6 were new for FY18. Two competencies from FY16 were not used in FY18.

almost three times as many responses as were received in FY16. Although the new population is more representative of the overall population than it has been in previous surveys, it is difficult to determine how the influx of new respondents impacted competency ratings.

The FY18 report analyzed several questions differently than the FY16 report did. For example, there was more focus on demographic and employment characteristics such as age, pay grade, years of acquisition experience, and time dedicated to acquisition-related activities, all of which were analyzed by FAC level. Since different analyses were used in FY16 than FY18, certain historical comparisons could not be made for these workforce characteristics.

Adding new competencies to the FY18 survey did not allow for comparisons to past surveys. Going forward, the FY18 AWCS will be the baseline for these new competencies.

The verification process helped to refine the process by validating verified responses to include in the analysis. Responses that could not be verified were removed and not analyzed. An analysis of the FY18 responses showed that including responses from unverified respondents drove average ratings in all categories several tenths of a point lower. With the ability to verify FAC area and level, FY18 can be viewed as a reset point for competency proficiency going forward.

The change in the scoring scale may have had an impact on proficiency scores between FY16 and FY18. In FY16, the proficiency ratings of those who responded N/A to the "Time Spent" questions were excluded from the analysis. An analysis of a sampling of FY16 responses suggests that the FY16 scores would have been several tenths lower had those that responded to the N/A option been included in the analysis.


Given the increase in the survey response rate, and the changes in the survey methodology and analysis, it cannot be inferred that competency levels actually declined in FY18.

# Survey Respondent Demographics

This section describes the response rate and reviews the demographic and employment characteristics of the acquisition workforce who responded to this survey. There were 31,951 responses from verified FAC holders included in this analysis.

## Response Rate

The FY18 AWCS received a total of 25,562 completed surveys and respondents were from all 23 civilian Chief Financial Officers (CFO) Act agencies (except DoD) and 26 small agencies. FAI also analyzed an additional 11,274 partial responses from the survey to increase the sample size of the analysis.<sup>6</sup>



In FY18, the number of completed AWCS responses increased by 83% from FY16.

The FY18 AWCS received a sufficient number of responses in each of the three FAC areas (FAC-C, FAC-COR, and FAC-P/PM) for the results of the survey to be considered statistically representative at a government-wide level.

Consistent with OPM standards for the FEVS, a statistically representative sample was determined using a 95% confidence level and a confidence interval of plus or minus 5%. By gathering a statistically representative sample, the acquisition community can be highly confident that the results collected, and the data analyzed in this report, are representative of the entire civilian acquisition workforce.

In FY18, the response rate was calculated using three different methods. Method 1 compares the number of surveys sent out via FAITAS with the number of surveys that were taken. Method 2 compares the number of surveys sent to FAC holders with the number taken by FAC holders. By linking the survey to FAITAS in FY18, FAI could more accurately count how many FAC workforce members received the survey link. Method 3, which was used in prior years, compares the total number of responses to the number of FAC workforce members reported by CFO Act agencies in the prior years' Acquisition Human Capital Plans. Figure 3 shows the response rates using all three methods.

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<sup>6</sup> Partial responses are instances in which a respondent did not complete the entire survey, but did complete section(s) of the survey that was used for analysis. A full explanation of complete and partial responses can be found in the Methodology Section.

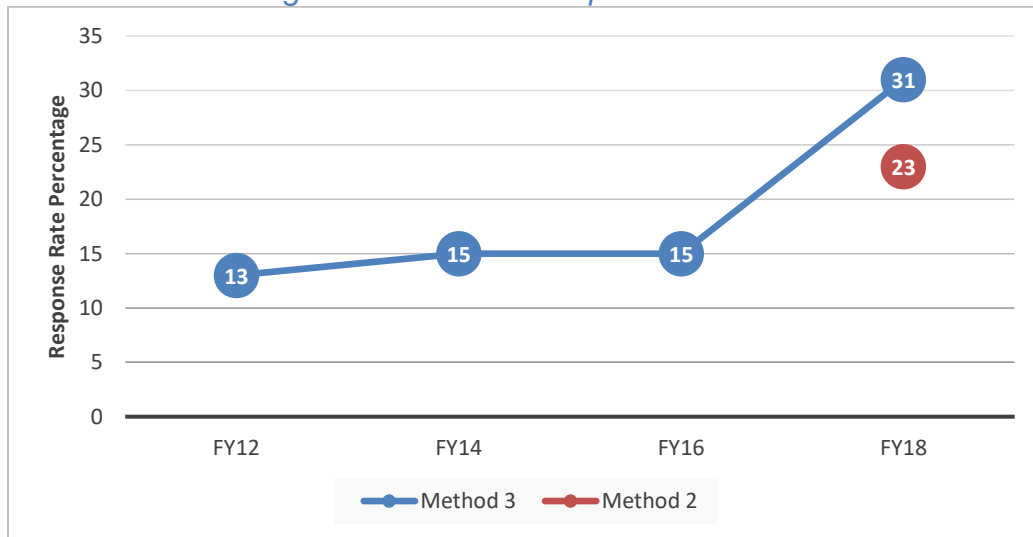
Figure 3: Response Rate Calculations

Response Rate Method	Numerator	Denominator	FY18 Rate	FY16 Rate
<b>Method 1:</b> <u>Total Surveys Taken</u> Total Surveys Sent	25,562	164,133	15.5%	—
<b>Method 2:</b> <u>FAC Surveys Taken</u> FAC Surveys Sent	17,835	79,150	22.5%	—
<b>Method 3:</b> <u>Total Surveys Taken</u> FY16 Acquisition Human Capital Plan (AHCP) FAC Workforce Members	25,562	82,441	31.0%	15%

The numbers in Figure 3 refer to the number of completed responses. It does not include partial responses, which were included in the analysis.

Figure 4 shows the historical AWCS response rate. In previous years, FAI used Method 3 to calculate the response rate. From FY18 on, FAI will use Method 2 to calculate the survey response rate.

Figure 4: Historical Response Rates

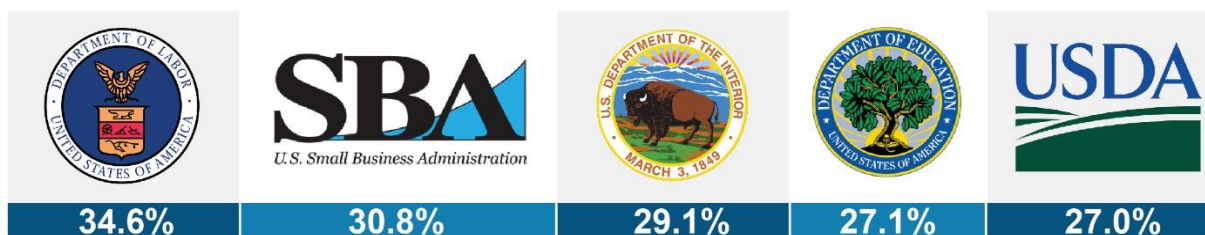


For response rates by each CFO Act agency that participated, see Appendix B.

### Agency Level Response Rates

Using the Method 2 response rate calculation described above, the five agencies with the highest response rates were the Department of Labor, the Small Business Administration, the Department of the Interior, the Department of Education, and the Department of Agriculture, as shown in Figure 5.

Figure 5: Top Agency Response Rates



Agencies with the largest number of FAC responses were the Department of Veterans Affairs (2,568), the Department of Homeland Security (2,325), and the Department of Health and Human Services (1,912). Due to their large numbers, the results from these agencies had the greatest impact on the overall survey results.

### FAC Respondent Demographics

Figure 6 illustrates the demographic profile of FY18 FAC respondents. The demographic profile for age, grade, and years of experience among FY18 AWCS respondents is similar to that of the FY16 survey. There was a slight increase in the percentage of FAC respondents who are supervisors, from 14% in FY16 to 15.5% in FY18.

Figure 6: FAC Demographic Summary

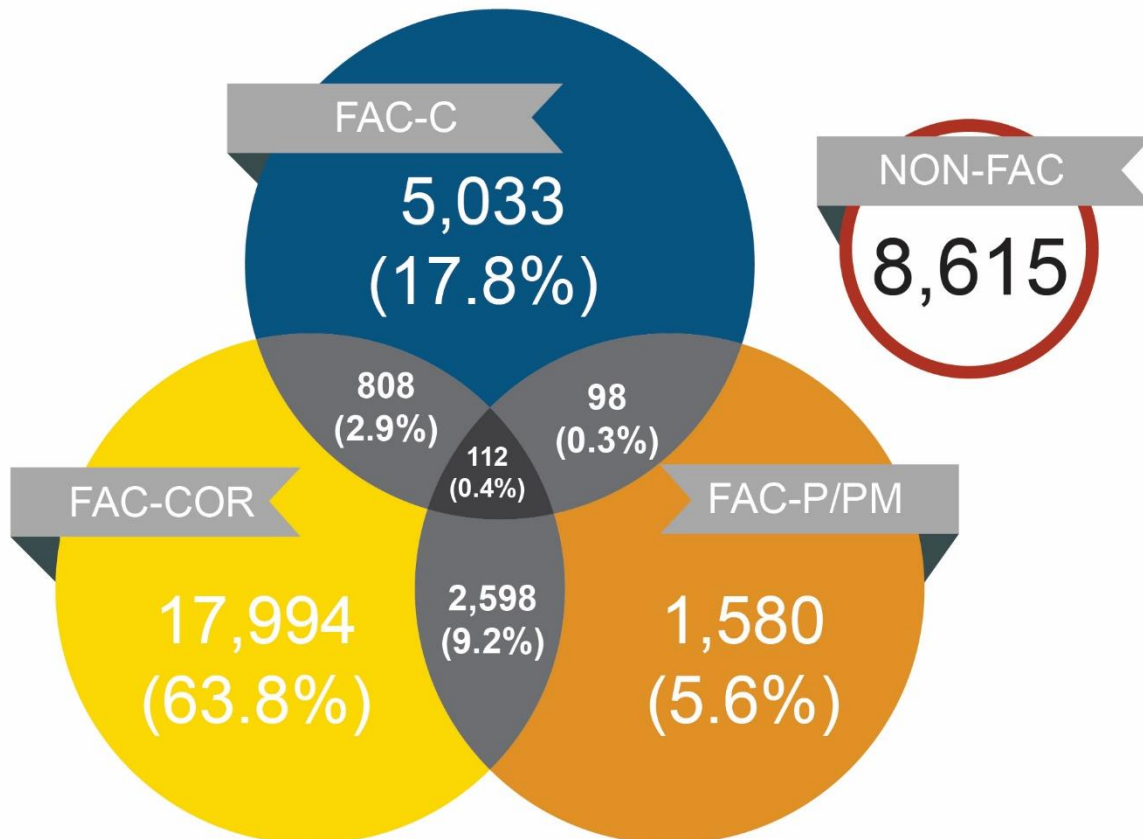


### FAC Certification Areas

Figure 7 demonstrates the certification breakdown of all respondents from the FY18 AWCS. Figures in the Venn diagram represent the verified certification areas of AWCS respondents, including those who submitted partial responses. Overall, 63.8% of verified FAC respondents to the FY18 AWCS identified themselves as FAC-COR holders only, 17.8% identified as FAC-C holders only, and another 5.6% identified as FAC-P/PM holders only. An additional 12.8% of respondents indicated that they held two or more certifications. The most prevalent combination of multiple certifications was

the group that identified as holders of both FAC-COR and FAC-P/PM (9.2%). All FAC areas and combinations of FAC areas depicted in Figure 7 are inclusive of all certification levels from Level 3 to In Progress. An additional 8,615 respondents were not verified FAC holders.<sup>7</sup>

*Figure 7: Distribution of Survey Respondents*



### FAC Levels

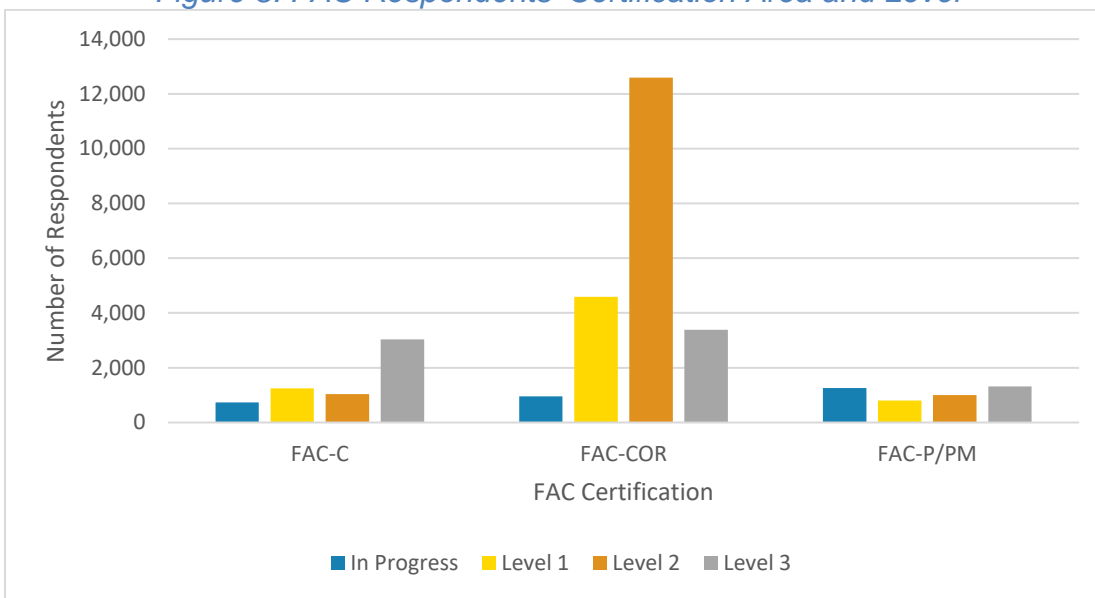
In addition to providing their certification areas, respondents were asked to provide their certification levels.<sup>8</sup> Figure 8 provides a detailed look at the verified certification levels across the three FAC areas.

<sup>7</sup> These individuals either held an agency specific acquisition certification, or participated in the survey only as a supervisor of acquisition professionals, or could not be verified as holding any FAC certification.

<sup>8</sup> Certification area and level were verified against FAITAS records. The figures in this section represent the number of verified responses at each level. Respondents from NASA, NSF, and DOS (FAC-COR holders) were not verified.



Figure 8: FAC Respondents' Certification Area and Level



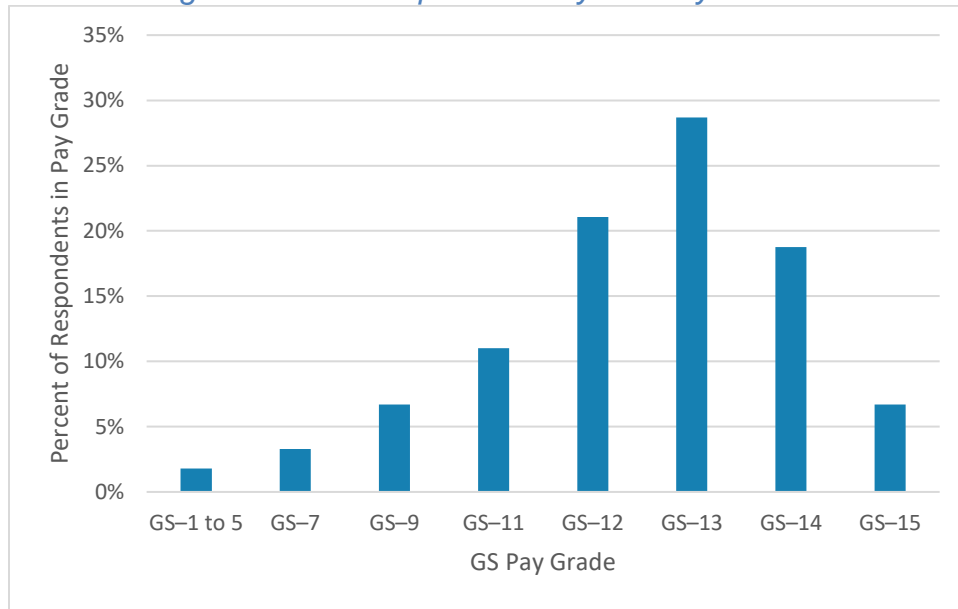
Level 3 certifications are most common in the FAC-C area, Level 2 certifications are most common in the FAC-COR area, and certifications are distributed relatively equally across levels in the FAC-P/PM area. It is important to note that because many acquisition workforce members hold multiple certifications, Figure 8 includes duplicates.

### FAC Pay Grade

Survey Version 1 provides the pay plan and grade of all registered account holders, and those who responded to the Version 2 survey were given the opportunity to provide their pay plan and grade. The most common General Schedule (GS) paygrade, the GS-13 level, represents 28.7% of FAC holders.

Figure 9 shows the distribution of FAC certified workforce members at each grade level within the GS pay plan. Approximately 82% of the FAC certification holders are on the GS pay plan. Non-GS pay plan employees, such as those under the Federal Wage System, Senior Executive Service, or other agency-specific pay plans are not included in this analysis.

Figure 9: FAC Respondents by GS Pay Grades



Figures that refer to pay grade do not include data for GS-6, GS-8, or GS-10, because these pay grades represent very small percentages of the workforce. As a result, the sum of figure percentages will not equal exactly 100%.

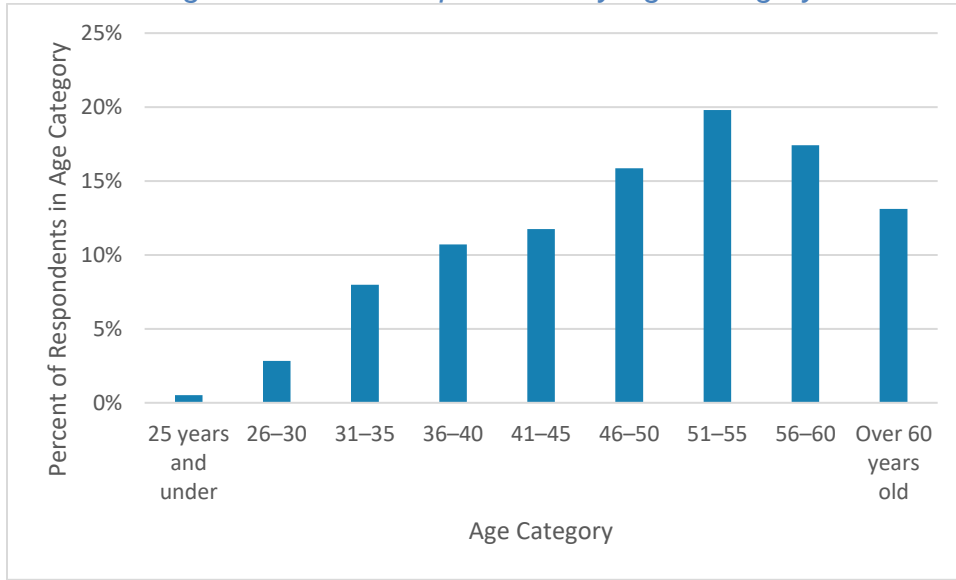
This was the first year that GS pay grades were reported. Previous AWCS surveys reported pay grade distributions in ranges (such as Entry, Intermediate, Expert) rather than by actual level; nonetheless, the FY18 results closely match the FY16 results.

### FAC Age Categories

The most common age range among FAC holders is 51–55 years. Millennials roughly encompass the lowest three age bands. Figure 10 shows the distribution of FAC workforce members in each age category.

Fifty percent of respondents are 51 years and over, while millennials account for 11% of respondents.

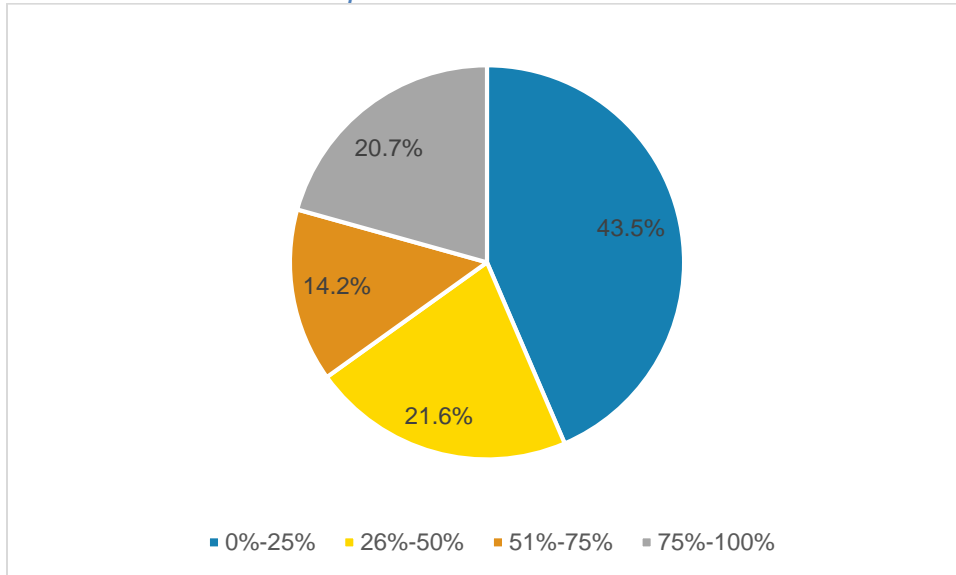
*Figure 10: FAC Respondents by Age Category*



### Average Time Dedicated to Acquisition-Related Activities

The analysis revealed that 43.5% of FAC members spend up to 25% of their time on FAC-related activities, as shown in Figure 11. This result is heavily influenced by the high percentage of respondents who were FAC-COR holders.

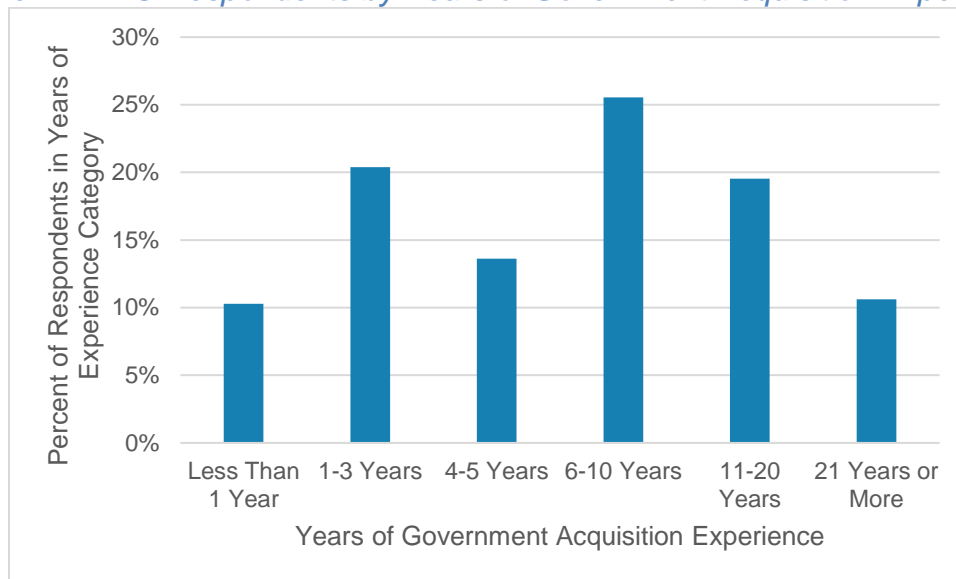
*Figure 11: FAC Respondents by Percent of Time Dedicated to Acquisition-Related Activities*



### Years of Government Acquisition Experience

Respondents were asked to indicate the number of years of government experience they have as a FAC-C, FAC-COR, or FAC-P/PM holder. Figure 12 shows the years of government acquisition experience among respondents.

Figure 12: FAC Respondents by Years of Government Acquisition Experience



The most common response was 6–10 years, which accounted for 25.5% of respondents. The least common responses were less than 1 year of experience (10.3%) and more than 21 years of experience (10.6%).

### Agency-Specific Program Areas

Although not the primary focus of the survey, FAI analyzed survey respondents' agency-specific program areas, as shown in Figure 13. These reflect agency certifications in specified program areas that are not related to the FAC. Individuals who hold these certifications may also hold a FAC or may have taken training in FAITAS.<sup>9</sup>

Figure 13: Agency-Specific Program Areas



In total, 914 survey respondents hold agency-specific certifications. Of the 17 non-FAC program areas, the most prevalent is the Life Cycle Logistics Program (142), followed

<sup>9</sup> These employees received the survey invitation because they were registered in FAITAS.

closely by the Leasing Certification Program (141). Seventy-six percent of these agency-specific certification holders also hold a FAC.

## **Summary of Findings**

The FY18 AWCS had a record high number of responses, with 25,562 complete responses and 11,274 partial responses. FAC-COR holders, especially those with Level 2 certifications, made up the largest segment of FAC holders. FAC holders were most likely to be 51–55 years old and a GS-13. Despite the advanced grades, the most common category of years of acquisition experience was 6–10 years. A plurality of FAC holders dedicates 0–25% of their time to acquisition-related activities.

# Federal Acquisition Certification—Contracting Professionals

## Overview

This chapter describes the workforce profile, competency proficiencies, and performance outcomes for verified FAC-C respondents. Overall, there were 6,051 verified FAC-C holders who were included in the workforce profile analysis and 4,438 verified FAC-C holders included in the competency proficiencies and performance outcome analyses. These numbers differ because not all verified FAC-C respondents completed the competency survey section.

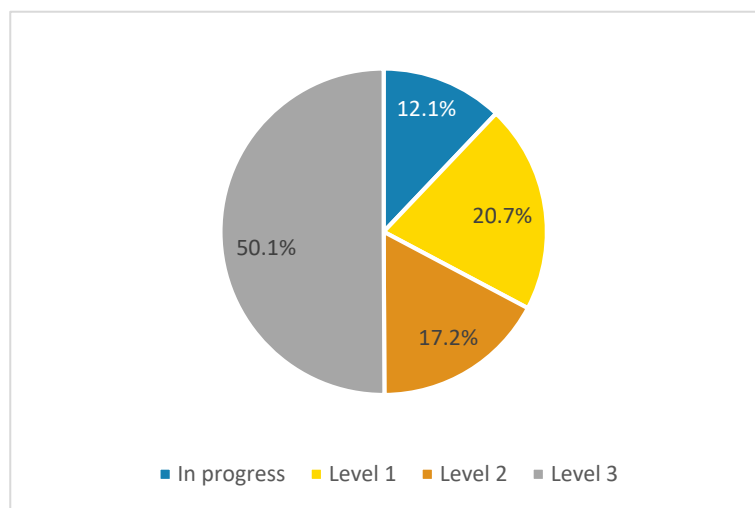
## Workforce Profile

In this section, the 6,051 verified FAC-C holders are described using workforce profile characteristics.

### Certification Level

FAC-C holders receive certification at three levels, each of which requires holders to meet increasing training and experience standards. “In Progress” refers to individuals who are attaining training and experience to earn a Level 1 certification. Figure 14 shows the certification level composition of FAC-C respondents. The majority of FAC-C respondents (50.1%) held a Level 3 certification. Respondents who held a Level 1 or 2 certification comprise 20.7% and 17.2% of responses respectively. Additionally, 12.1% of FAC-C respondents are currently working toward obtaining a Level 1 certification.

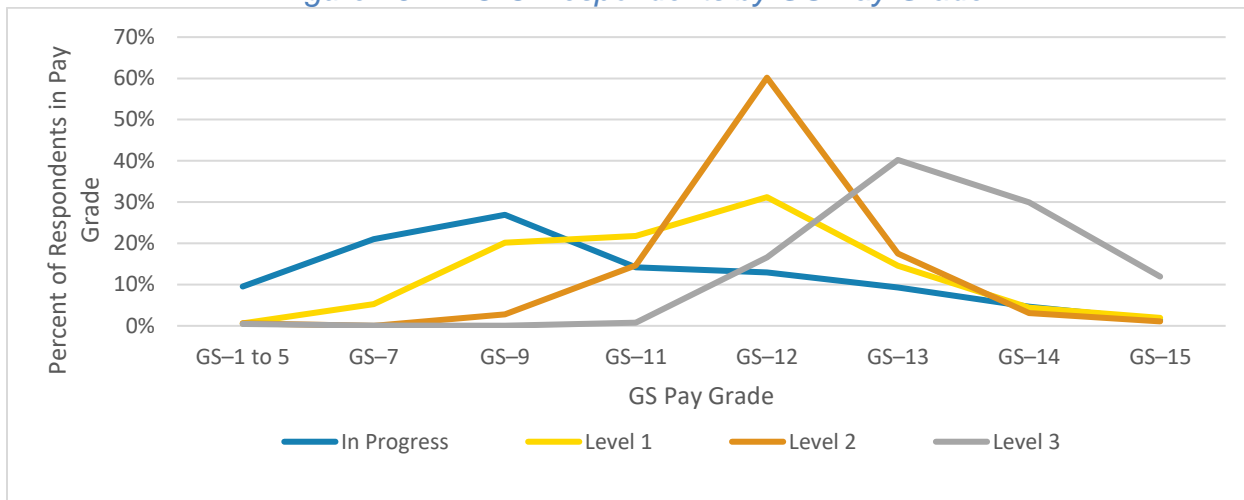
*Figure 14: FAC-C Verified Survey Respondents by Certification Level*



### Pay Grade

Figure 15 shows the percentage of FAC-C holders at each GS pay grade. In general, FAC-C holders of higher levels belong to higher pay grades. In Progress FAC-C respondents were generally in the GS-7 and GS-9 pay grades. Level 1 and 2 FAC-C holders were most frequently at the GS-12 pay grade, and respondents who held a Level 3 certification were mostly GS-13 or above.

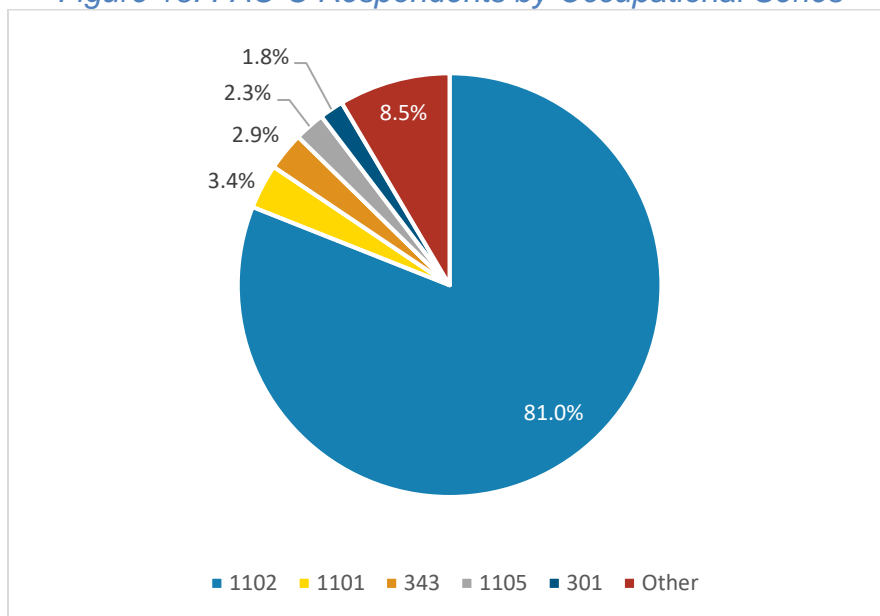
Figure 15: FAC-C Respondents by GS Pay Grade



### Occupational Series

The vast majority of FAC-C respondents were in the 1102 contracting occupational series (81%), as presented in Figure 16. As for the remaining FAC-C respondents, 5.7% are in the 1100 (Business and Industry) group (excluding the 1102 occupational series), 4.7% are in the 300 (General Administrative, Clerical, and Office Services) group, and 8.5% are in other occupational series.<sup>10</sup>

Figure 16: FAC-C Respondents by Occupational Series



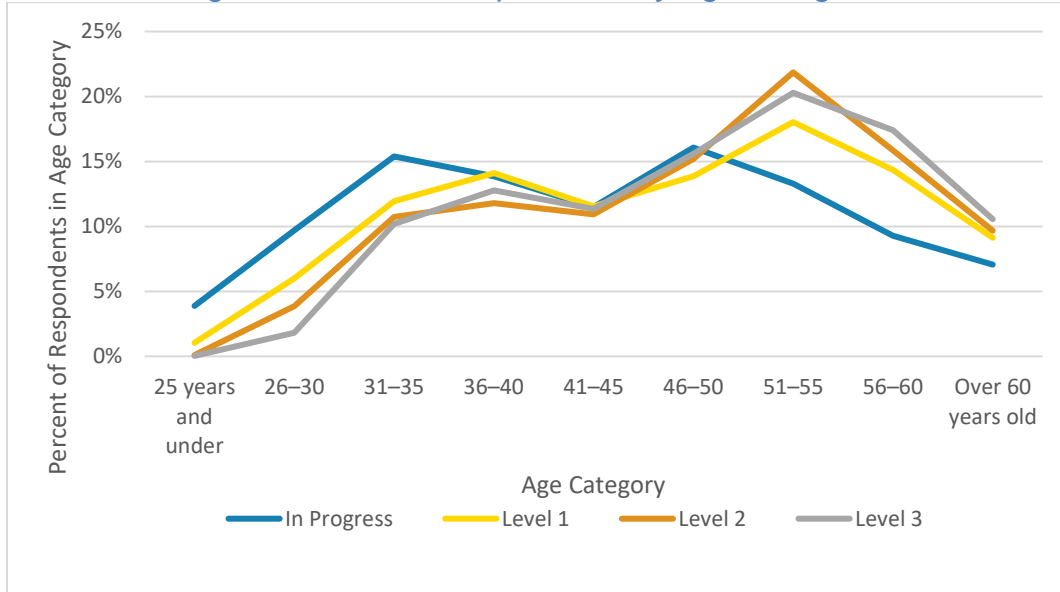
### Age Category

Although the most common age category among FAC-C holders was 51–55 years, the distribution was somewhat bimodal. As shown in Figure 17, for FAC-C holders of Levels 1 through 3, the percentage at each age category rose until its peak at 51–55

<sup>10</sup> Occupational series, such as 1101 and 1102, fall within larger occupational groups, such as 1100.

years of age, but dipped at the 41–45 year age range. In Progress FAC-C holders had a similar age distribution, although they were more likely to be 25–35 years old, and less likely to be 51 years and over.

Figure 17: FAC-C Respondents by Age Categories

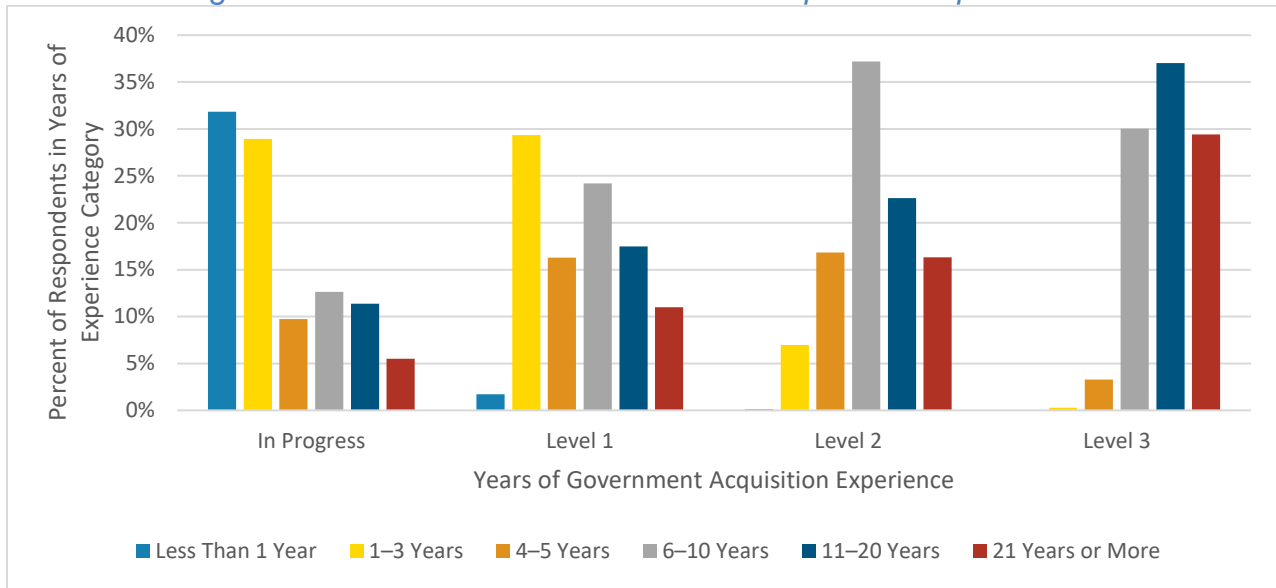


### Years of Government Acquisition Experience

Figure 18 shows the years of government acquisition experience for survey respondents who were FAC-C holders. Unsurprisingly, those who had advanced to higher certification levels had more experience in the FAC-C area because attaining each level includes a higher experience requirement. Those who identified as In Progress were most likely to have less than one year of experience. Level 1 FAC-C holders were most likely to have 1–3 years of experience, Level 2 FAC-C holders were most likely to have 6–10 years of experience, and Level 3 FAC-C holders were most likely to have 11–20 years of experience.



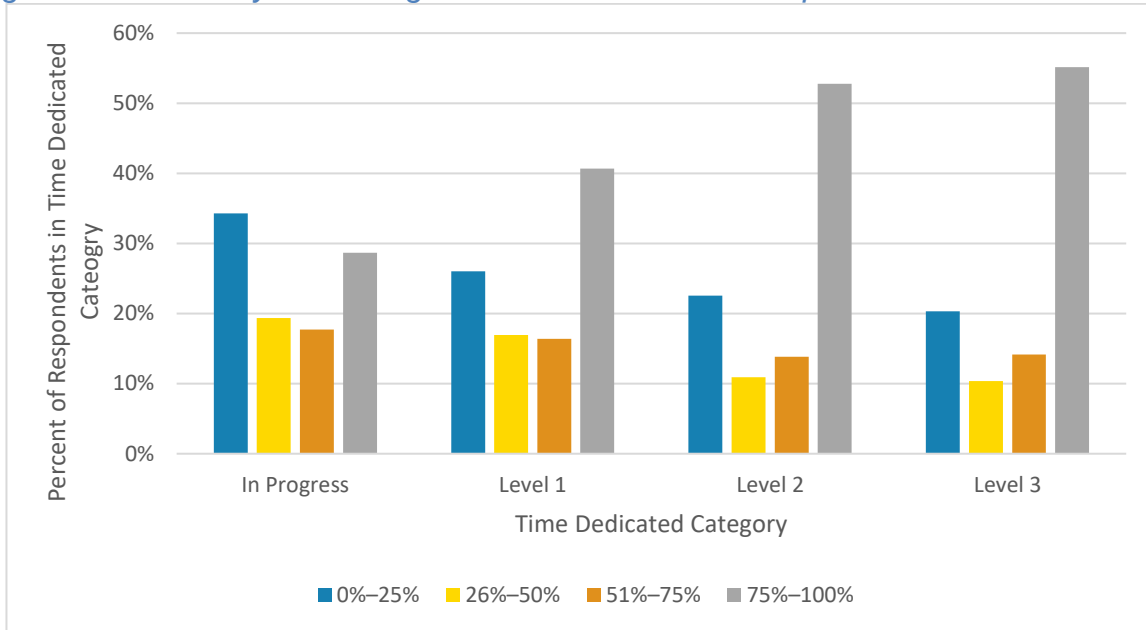
Figure 18: FAC-C Years of Government Acquisition Experience



### Time Dedicated to Acquisition-Related Activities

Higher-level FAC-C holders spent more of their time on FAC-C responsibilities. For Levels 1 through 3 FAC-C holders, the most common response was 75–100% of time dedicated to acquisition-related activities, and the second most common response was 0–25% of time spent. The most common response for In Progress FAC-C respondents was 0–25% of time dedicated to acquisition-related activities. This indicates that FAC-C holders tend to be in two categories: FAC-C holders whose primary full-time duties are those of an 1102, or FAC-C holders who have other primary duties, such as supervising contracting officers, but require the FAC-C knowledge. Figure 19 shows how much time FAC-C holders dedicated to acquisition-related activities.

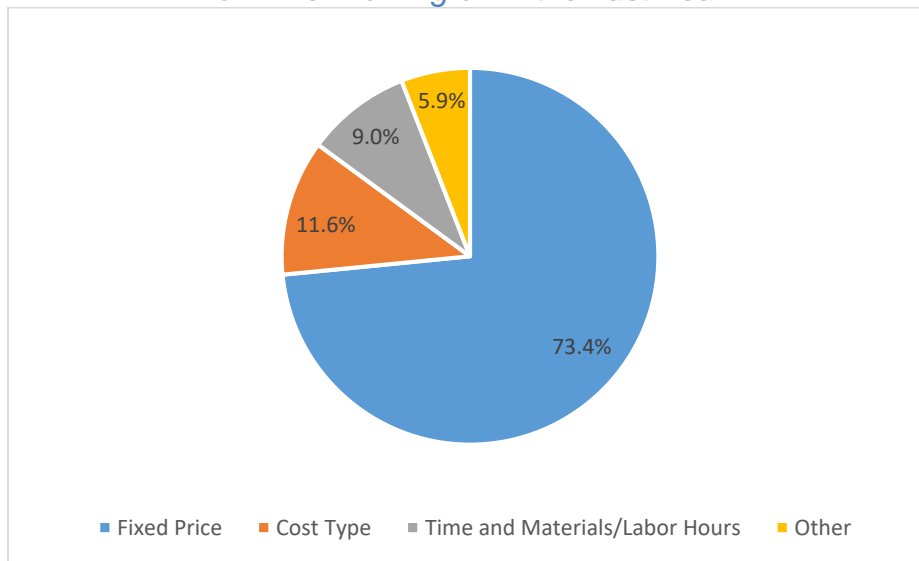
Figure 19: FAC-C by Percentage of Time Dedicated to Acquisition-Related Activities



### Contracts and Commodities

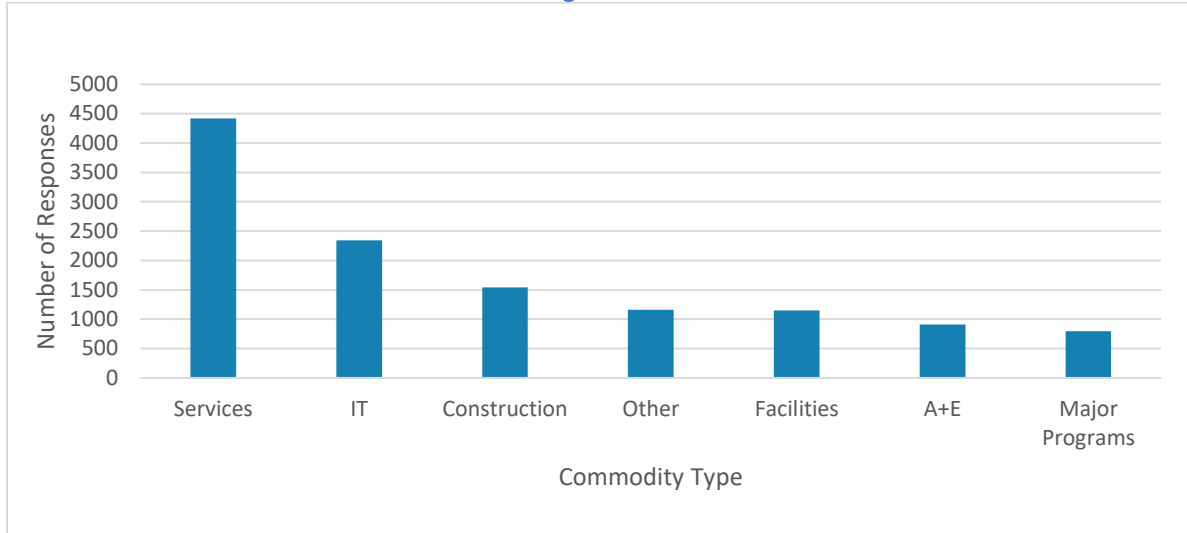
FAC-C holders were asked to indicate which contract type and commodity type they spent the majority of their time working on in the past year. Figure 20 shows the most common contract types on which they worked, and Figure 21 shows the most common commodity types.

Figure 20: FAC-C by Contract Type Spent the Majority of Time Working on in the Last Year



Among respondents, 73.4% worked primarily with fixed price contracts, 11% worked with cost type contracts, and 9% worked with time and materials/labor hour contracts.

Figure 21: FAC-C by Commodity Type Spent the Majority of Time Working on in the Last Year

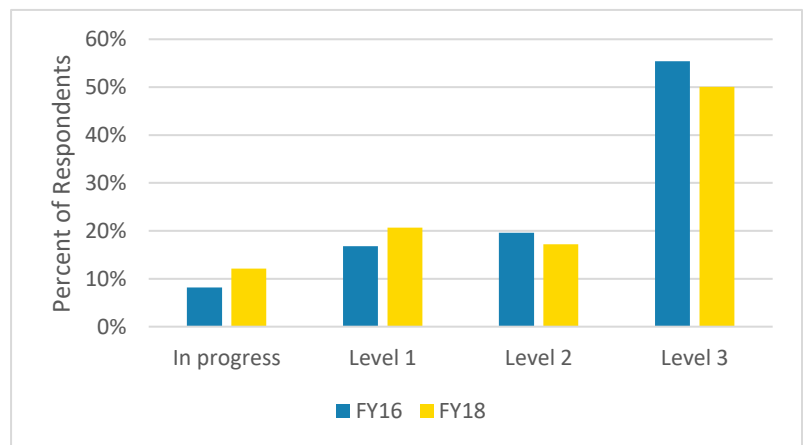


As seen in Figure 21, for commodity type, respondents were given the option to select multiple commodity types. Services (4,417) were the most common type of commodity dealt with in the past year, followed by IT (2,345), and construction (1,541).

### Major FAC-C Workforce Changes from FY16

The FY18 AWCS FAC-C respondents were of proportionally lower certification levels than respondents in FY16. Figure 22 shows that in FY18, there was a higher proportion of respondents In Progress or at Level 1 than in FY16, and a correspondingly smaller proportion of respondents at Levels 2 and 3. Additional analysis would be needed to determine the cause of this shift, but it could be a reflection of senior individuals retiring and being replaced. As prior analyses did not disaggregate demographics by FAC-C levels, this hypothesis could not be analyzed. In aggregate however, the most common age categories, years of experience, grade levels, and occupational series remained the same as those from FY16.

Figure 22: FAC-C Holders' Level FY16 vs FY18



### FAC-C Competencies

In FY14, the FAC-C competency model was updated to align with DoD's Acquisition Workforce Improvement Act (DAWIA) contracting certification. The competencies presented in the FY14 and FY16 competency surveys include 14 of the 28 technical contracting competencies from the DAWIA model. The FY18 survey asked FAC-C

holders to respond to all 28 DAWIA model competencies. This FAC-C Competencies section presents analysis of the 4,438 respondents who held FAC-C and completed the competency section.

Since the competency list changed from FY16 to FY18, Figure 23 presents the 14 old competencies in comparison to FY14 and FY16, while Figure 24 shows the 14 additional competencies without historical comparisons.

*Figure 23: FAC-C Competency Proficiency FY14–18*

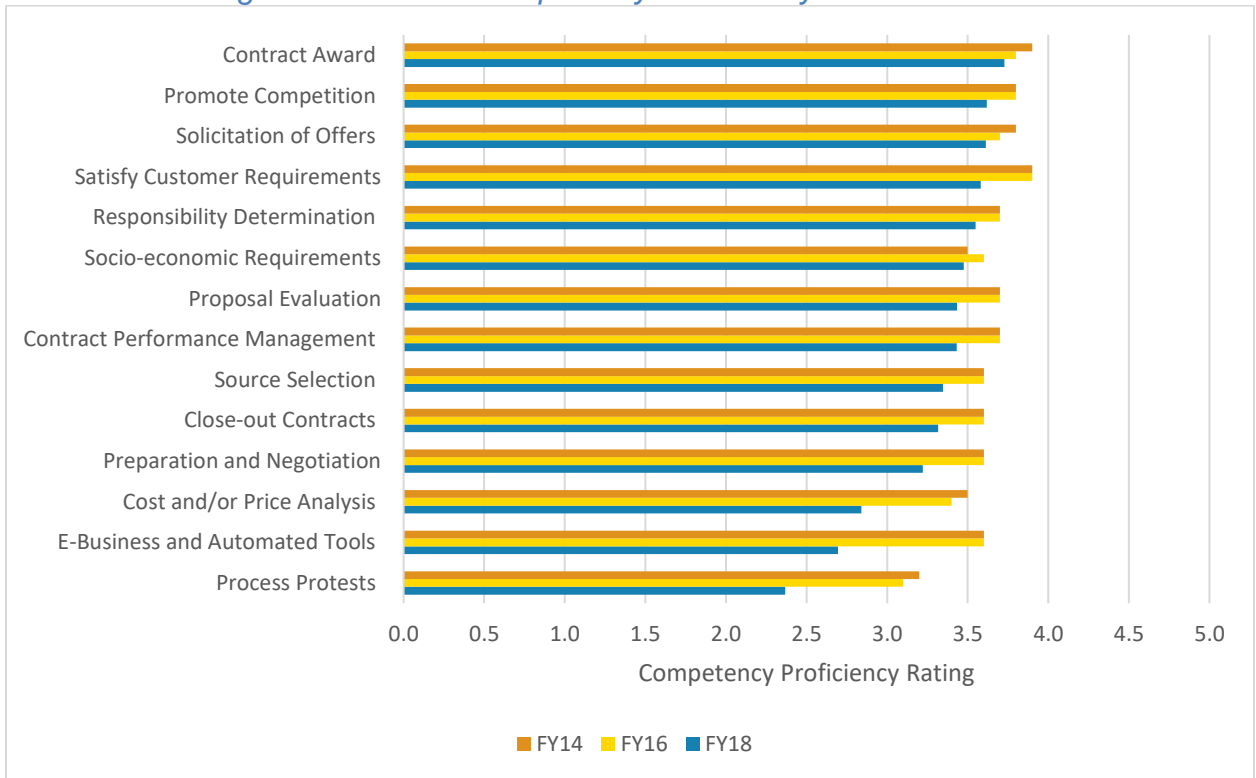
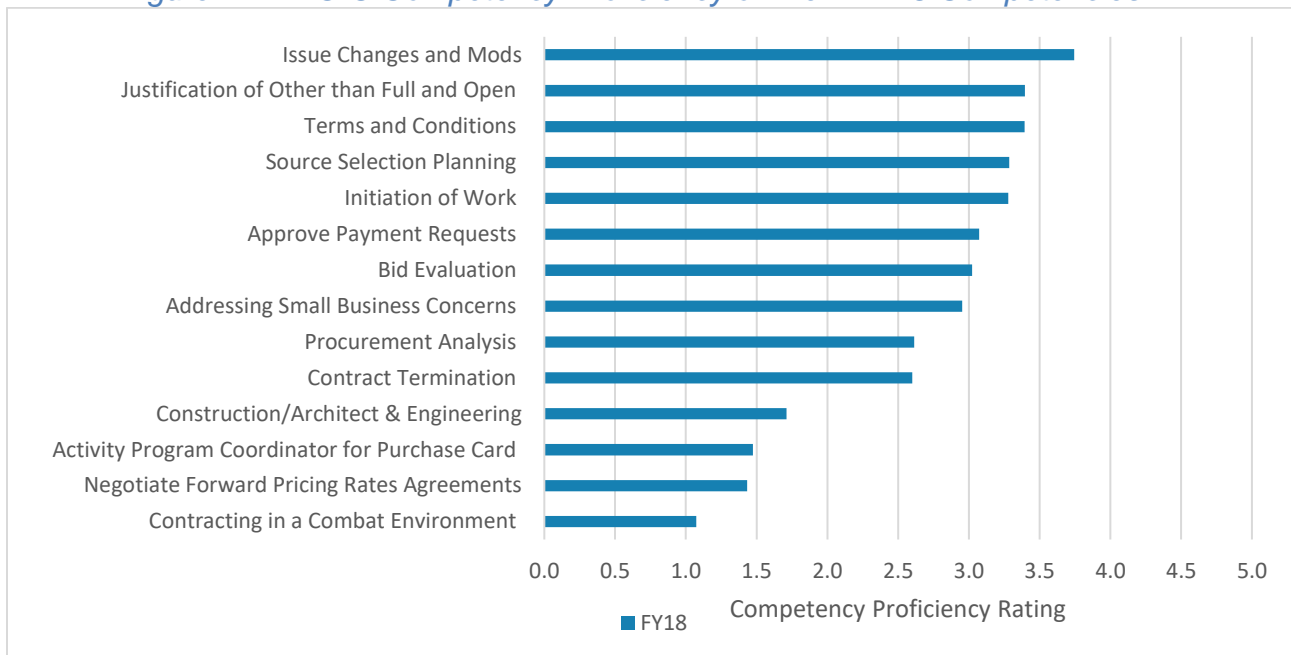


Figure 24: FAC-C Competency Proficiency on New FY18 Competencies

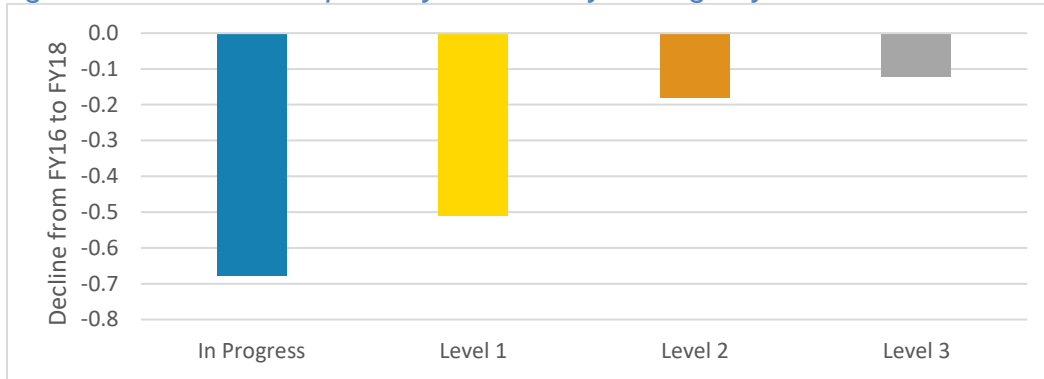


In FY18, the highest rated competencies were *Issue Changes and Modifications* (3.74), *Contract Award* (3.73), and *Promote Competition* (3.62). Most of the competencies were rated between the foundational (2) and advanced (4) levels. However, four competencies scored in the foundational (2) range: *Construction/Architect and Engineering (A&E)* (1.71), *Activity Program Coordinator for Purchase Card* (1.47), *Negotiate Forward Pricing Rates Agreements & Administer Cost Accounting Standards* (1.43), and *Contracting in a Contingent and/or Combat Environment* (1.07). These competencies all received the lowest scores on time spent.

Across most of the 14 competencies, ratings show a declining pattern from FY14 levels, with some FY18 ratings considerably lower than previous years.<sup>11</sup> The competencies that scored below intermediate (3) and experienced sharp declines were *Advanced Cost and/or Price Analysis* (2.84), *E-Business and Automated Tools* (2.70), and *Process Protests* (2.37). *Process Protests* had been the lowest scoring of the old competencies on the two previous survey iterations.

<sup>11</sup> All declines are statistically significant at the  $p < .05$  level. See the methodology section for a potential explanation of the decline in scores.

Figure 25: FAC-C Competency Proficiency Change by Level: FY16 to FY18



The decline in scores was not uniform across certification levels. As presented in Figure 25, In Progress and Level 1 FAC-C holders reported sharp declines of more than 0.5 points on average, while Level 2 and Level 3 FAC-C holders reported only modest declines.

For more information regarding the competency proficiencies broken down by FAC-C level, see Appendix C.

#### FAC-C Competencies: Proficiency vs Time Spent

In addition to their proficiency, the AWCS asked respondents to report their time spent for each competency and performance outcome. This section analyzes the relationship between these two factors.

To begin, FAI calculated a correlation coefficient to understand the relationship between average time spent and average proficiency for the 28 FAC-C competencies. The coefficient revealed that for FAC-C holders, the time spent accounted for 94% of the variance in competency proficiency, which means that there is a very strong relationship between the two variables. Appendix C, Table C-4 shows the relationship between these two variables.

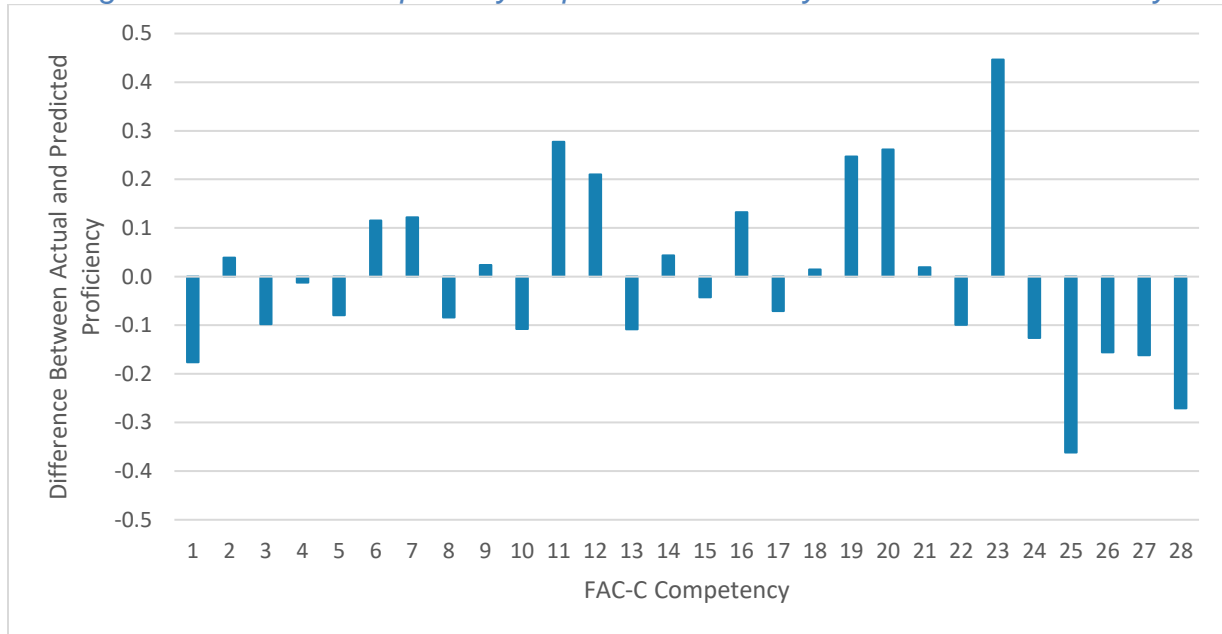
For FAC-C holders, there is a significant correlation between competency proficiency and time spent on the competency.

Using these two variables, FAI calculated a linear regression to predict the competency proficiency rating based on the time spent. Using the regression line, the differences between the actual and predicted competencies, known as residuals, were calculated. Figure 26 shows the residuals for each FAC-C competency. A negative bar for a given competency implies that the workforce self-reported lower than the predicted proficiency on that competency, considering the amount of time spent. A positive bar for a given competency implies the workforce self-reported higher than the predicted proficiency on that competency, considering the amount of time spent.

As Figure 26 reveals, FAC-C holders have strong skills compared to time spent in *Contract Termination*. An area that FAC-C holders were weaker compared to their time spent is *E-Business and Automated Tools*, which is a trend that has continued for

several survey cycles. FAC-C holders also were weak in *Contracting in a Contingent and/or Combat Environment*, though FAC-C respondents reported spending very little time on this competency.

Figure 26: FAC-C Competency Reported Proficiency vs Predicted Proficiency



LEGEND	
1	Determination of How Best to Satisfy Requirements for the Mission Area
2	Consider Socio-economic Requirements (CSE)
3	Promote Competition
4	Source Selection Planning
5	Solicitation of Offers
6	Responsibility Determination
7	Bid Evaluation
8	Proposal Evaluation (Contracting by Negotiation)
9	Source Selection
10	Contract Award
11	Process Protests
12	Justification of Other than Full and Open
13	Terms and Conditions
14	Preparation and Negotiation
15	Advanced Cost and/or Price Analysis
16	Initiation of Work
17	Contract Performance Management
18	Issue Changes and Modifications
19	Approve Payment Requests
20	Close-out Contracts
21	Addressing Small Business Concerns
22	Negotiate Forward Pricing Rates Agreements and Administer Cost Accounting Standards
23	Contract Performance Management
24	Procurement Analysis
25	E-Business and Automated Tools
26	Activity Program Coordinator for Purchase Card
27	Construction/Architect & Engineering (A&E)
28	Contracting in a Contingent and/or Combat Environment

### FAC-C Performance Outcomes: Proficiency vs Time Spent

In addition to rating proficiency and time spent across each of the FAC-C competencies, respondents also provided the same proficiency and time spent self-evaluations for the performance outcomes associated with each competency. The performance outcomes align with a specific competency and represent actions or behaviors that are exhibited when performing activities related to the competency. Each competency has one or more associated performance outcomes.

Using the same methodology described when comparing competency to time spent, a linear regression and residuals were calculated for FAC-C performance outcomes. These additional charts can be found in Appendix C.

Table 1 shows the performance outcomes that had highest and lowest residuals, meaning the highest and lowest actual proficiency ratings relative to what the trend line would predict based on time spent.

*Table 1: FAC-C Performance Outcomes with Highest and Lowest Residuals*

<b>FAC-C Performance Outcomes: Highest Residuals</b>	<b>Residual</b>
23a. Terminate contracts using applicable FAR (and supplemental) requirements if it is in the best interest of the government (either termination for convenience or cause/default).	0.42
11a. Process protests to determine whether to withhold award or stop performance pending outcome of the protest.	0.25
7a. Evaluate the sealed bids in a transparent manner to preserve the integrity of the competitive process.	0.22
<b>FAC-C Performance Outcomes: Lowest Residuals</b>	<b>Residual</b>
25a. Use e-business systems and automated tools to promote standardization, efficiency, and transparency.	-0.42
28a. Apply contracting expertise during deployments, contingency operations, or responses to natural disasters.	-0.26
1a. Provide proactive business advice on requirements documentation based on analysis of requirements and performance based approaches to find the best solution to satisfy mission requirements.	-0.25

Note: FAR = Federal Acquisition Regulation,

The proficiency outcomes with the highest and lowest residuals align to the competencies with the highest and lowest residuals. Performance outcome 25a—*Use E-Business systems and automated tools to promote standardization, efficiency, and transparency*—rated the lowest, while performance outcome 23a—*Terminate contracts using applicable FAR (and supplemental) requirements if it is in the best interest of the government (either termination for convenience or cause/default)*—rated the highest. These two performance outcomes were nearly twice the next largest residual.

## **FAC-C Summary of Findings**

Overall, the FY18 FAC-C demographics and employment characteristics were relatively consistent with those from FY16. However, the FY16 survey did not analyze these demographics in the same level of detail. FAC-C holders were predominantly in the 1102 occupational series (81%) and about half were Level 3. The most common pay grades for FAC-C holders span from GS-9 at the In Progress level to GS-13 at Level 3. Age ranges span the entire spectrum, but 51–55 years was the most common age category. While acquisition experience varied by level, the most common range of experience was 6–10 years, followed closely by 11–20 years. The largest segment of FAC-C holders spent 75–100% of their time on acquisition-related activities, worked on fixed price contracts, and worked on service-related contracts.



Across the board, the FY18 proficiency competencies and performance outcomes rated lower than in FY16. The competencies with the most noticeable declines were *Advanced Cost and/or Price Analysis*, *E-Business and Automated Tools*, and *Process Protests*.

Several of the newly surveyed competencies, such as *Construction/Architect and Engineering (A&E)*, *Activity Program Coordinator for Purchase Card*, *Negotiate Forward Pricing Rates Agreements & Administer Cost Accounting Standards*, and *Contracting in a Contingent and/or Combat Environment* received scores below the foundational level. Although they received low proficiency scores, the minimal time spent on these competencies suggest that they may be a lower training priority.

There was a very strong relationship between time spent and proficiency for FAC-C competencies. One notable competency was *E-Business and Automated Tools*. This competency and its associated performance outcome scored much lower than predicted, considering the amount of time spent on the task. Further analysis showed that while proficiency for most competencies increased up to the 56–60 years age category, proficiency for the E-Business competency and performance outcome peaked at the 46–50 years age category, and then declined in the 51 years and over age categories.

# Federal Acquisition Certification—Contracting Officer’s Representative

## Overview

This chapter describes the workforce profile, competency proficiencies, and performance outcomes for verified FAC-COR respondents. Overall, there were 21,512 verified FAC-COR holders who were included in the workforce profile analysis and 14,598 verified FAC-COR holders included in the competency proficiencies and performance outcome analyses. These numbers differ because not all verified FAC-COR respondents completed the competency survey section.

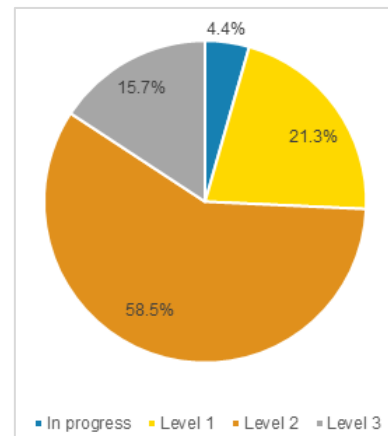
## Workforce Profile

In this section, the 21,512 verified FAC-COR holders are described using workforce profile characteristics.

### Certification Level

FAC-COR holders receive certification at three levels, each of which requires holders to meet increasing training and experience standards. “In Progress” refers to individuals who are attaining training and experience to earn a Level 1 certification. Figure 27 shows the overall composition of the 21,512 FAC-COR respondents. The majority held a Level 2 certification (58.5%); Levels 1 and 3 FAC-COR holders comprised 21.3% and 15.7% of respondents respectively, and 4.4% of the FAC-COR respondents identified as In Progress.

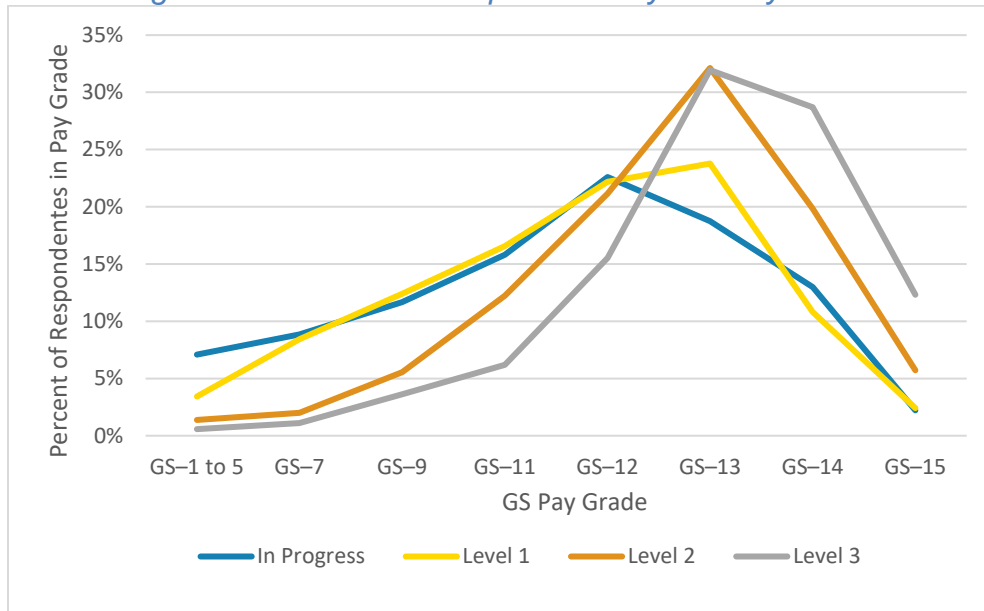
Figure 27: FAC-COR Verified Survey Respondents by Certification Level



### Pay Grade

Figure 28 shows the percentage of FAC-COR holders at each GS pay grade. In general, FAC-COR holders of higher levels belong to higher pay grades. Levels 1 and 2 FAC-COR holders were most likely to be in the GS-12 and GS-13 pay grades, while Level 3 holders were mostly GS-13 or above. In Progress FAC-COR holders most frequently are in the GS-11 and GS-12 pay grades.

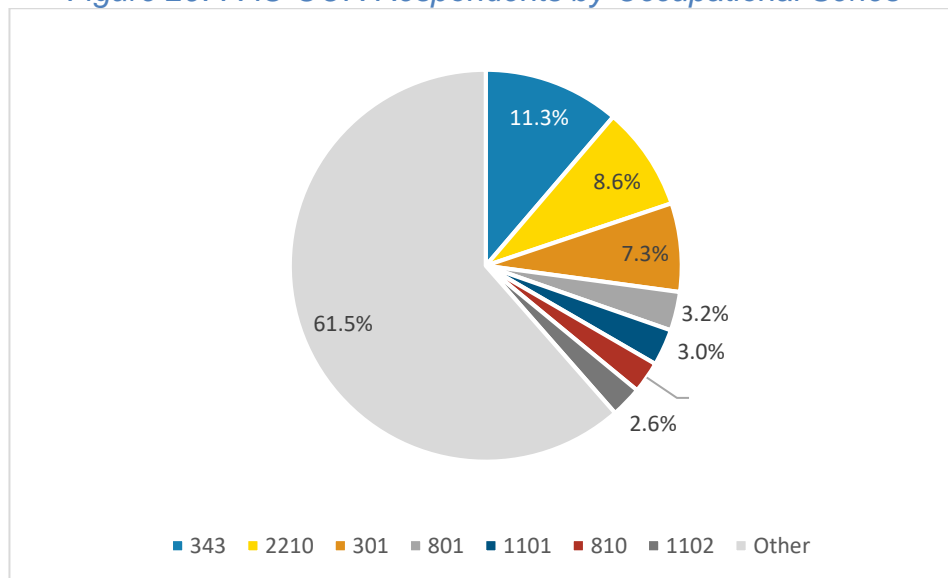
Figure 28: FAC-COR Respondents by GS Pay Grade



### Occupational Series

FAC-COR holders occupy over 400 different occupational series, none of which represent a large percentage of the workforce. The most common occupation groups for FAC-COR holders were 1100 (Business and Industry), 300 (General Administrative, Clerical, and Office Services), 2200 (Information Technology), and 800 (Engineering and Architecture).<sup>12</sup> Figure 29 shows the distribution of FAC-COR holders by occupational series.

Figure 29: FAC-COR Respondents by Occupational Series

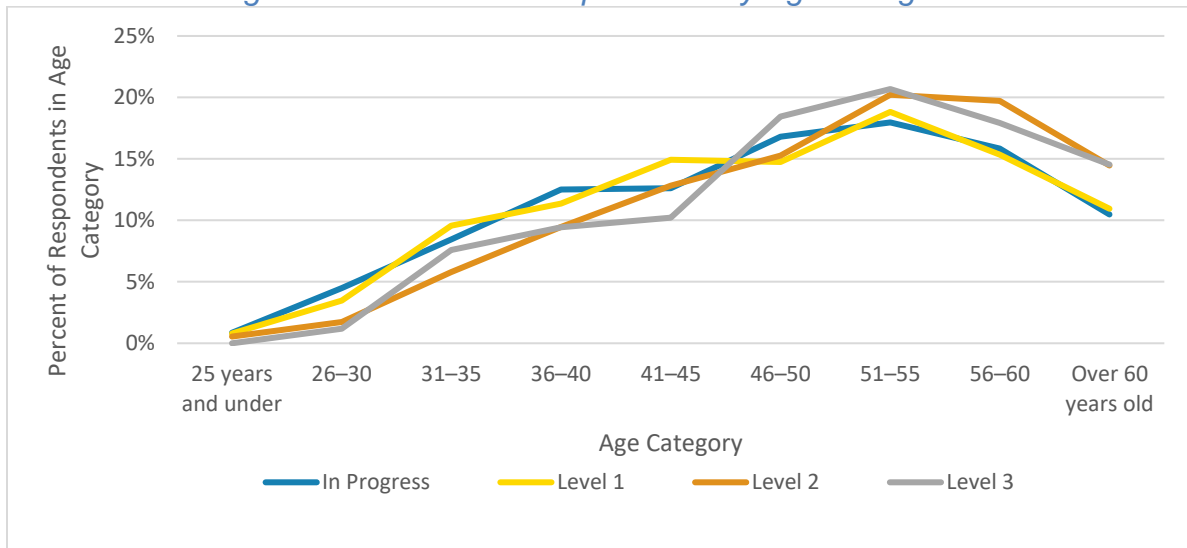


<sup>12</sup> Occupational series, such as 1101 and 1102, fall within larger occupational groups, such as 1100.

## Age Category

Although the most common age category for FAC-COR holders was 51–55, no age category comprised more than 21% of the overall FAC-COR population, as shown in Figure 30. In Progress and Level 1 FAC-COR holders had slightly larger representation in the younger age categories, while Levels 2 and 3 holders were predominately members of the higher age categories.

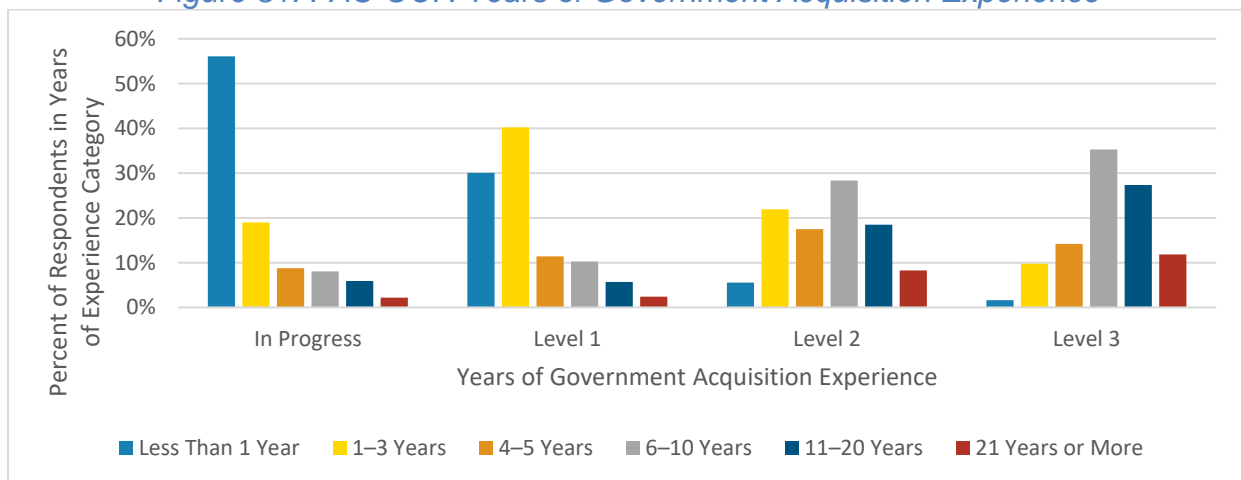
Figure 30: FAC-COR Respondents by Age Categories



## Years of Government Acquisition Experience

Figure 31 shows the acquisition experience of FAC-COR holders. Those who identify as In Progress were most likely to have less than one year of experience. Level 1 FAC-COR holders were most likely to have 1–3 years of experience, and Levels 2 and 3 FAC-COR holders were most likely to have 6–10 years of experience.

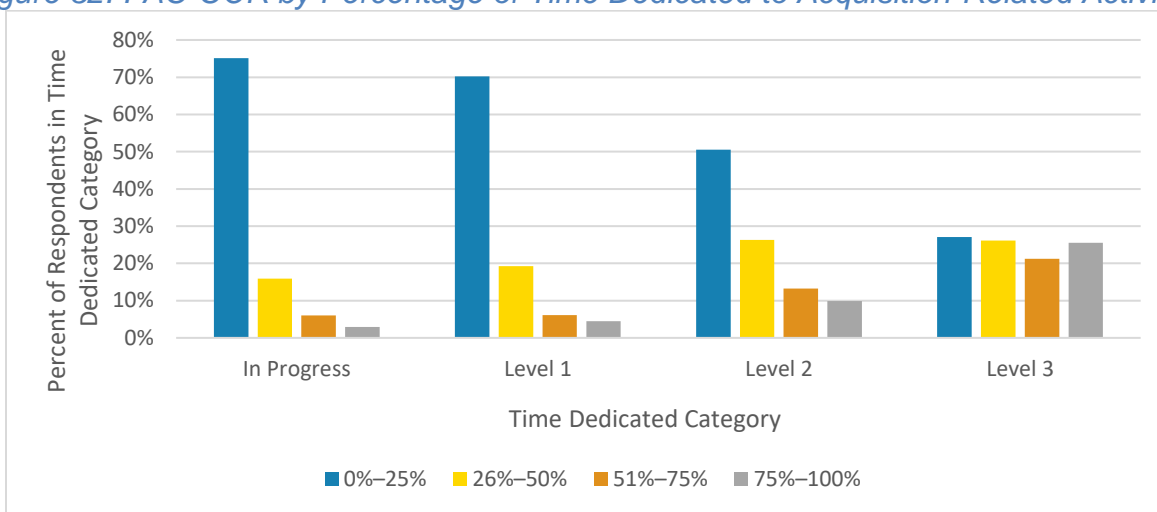
Figure 31: FAC-COR Years of Government Acquisition Experience



### Time Dedicated to Acquisition-Related Activities

FAC-COR holders with higher-level certifications spent more of their time on FAC-COR responsibilities than those with lower level certifications. The most common response for all levels was 0–25% of time dedicated to acquisition-related activities. For Level 3 FAC-COR holders, the responses were fairly evenly distributed across time dedicated categories. This implies that FAC-COR holders generally practice their acquisition responsibilities on a part-time basis, most likely as an additional duty along with their primary, non-acquisition-related job responsibilities. Many FAC-COR holders are also FAC-P/PM holders and thus may spend time on program and project management duties. Figure 32 shows how much time FAC-COR holders dedicated to acquisition-related activities.

*Figure 32: FAC-COR by Percentage of Time Dedicated to Acquisition-Related Activities*

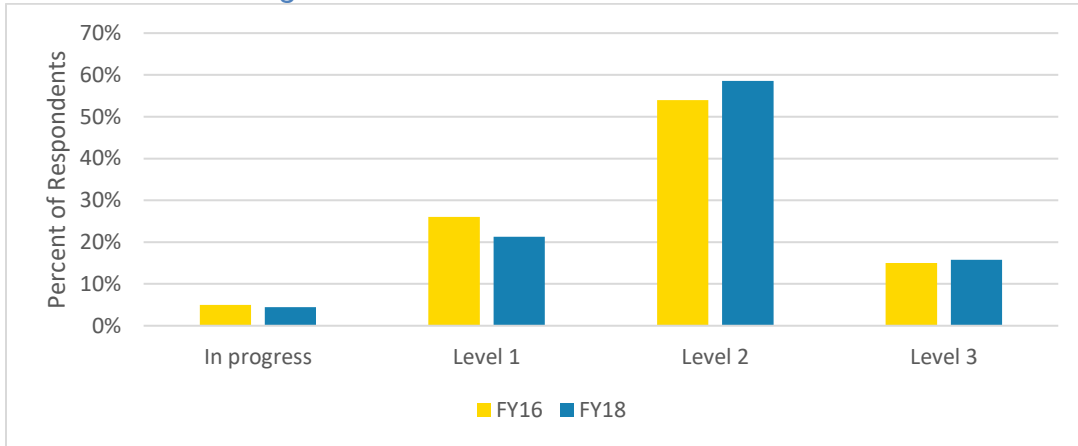


### Major FAC-COR Workforce Changes from FY16

Compared to the FY16 survey respondents, the FY18 FAC-COR respondents held slightly higher-level certifications. Figure 33 shows that in FY18, there was a higher proportion of respondents in Levels 2 and 3, and fewer respondents In Progress or at Level 1.

At the same time, the most common years of experience for FY18 shifted to 1–3 years, down from 6–10 years (see Figure 31). This may reflect the fact that FAC-COR holders are progressing to higher certification levels earlier in their careers, or it may mean that FY16's numbers were an anomaly, since the FY12 and FY14 surveys also reflected 1–3 years as the most common years of experience category. The most common age categories, grade levels, and occupational series remained the same as in FY16.

Figure 33: FAC-COR Level FY16 to FY18

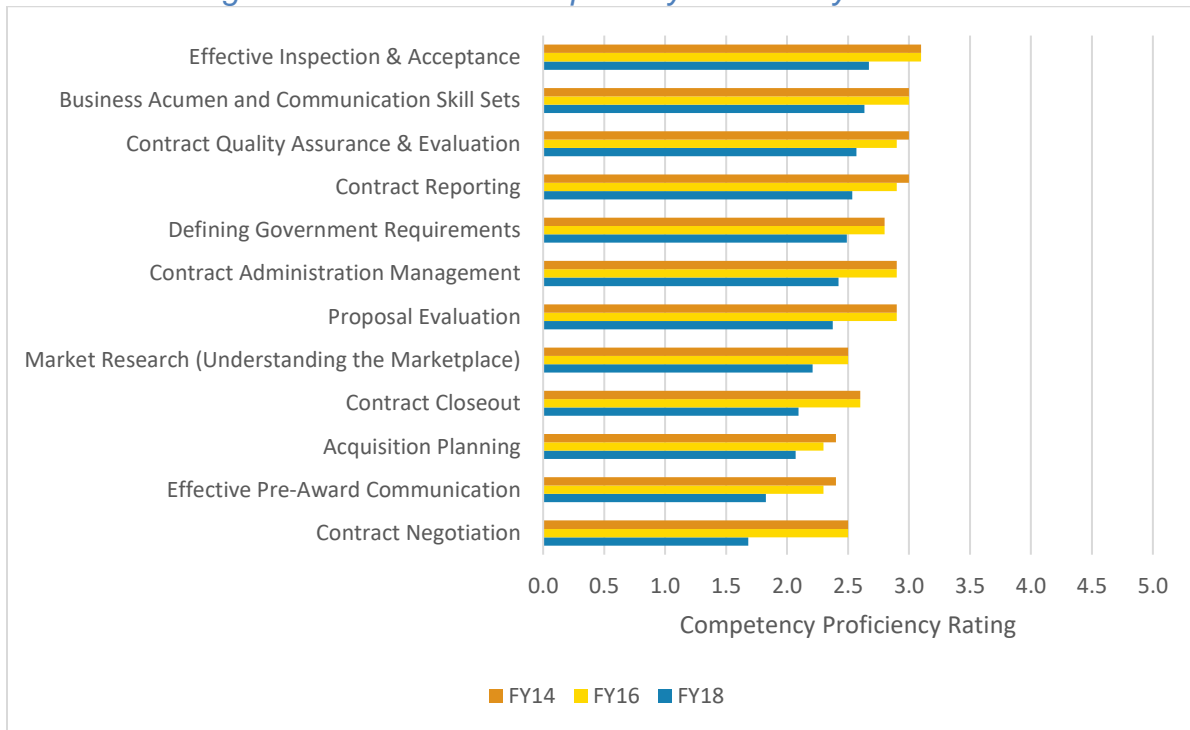


### FAC-COR Competencies

The FY18 AWCS participants who identified themselves as FAC-COR certified were asked to rate their proficiencies and time spent across the FAC-COR competencies. The FY18 survey asked FAC-COR holders to respond to 12 competencies, as did the FY16 and FY14 surveys. This FAC-COR Competencies section presents analysis of the 14,598 respondents who held FAC-COR and completed the competency section.

Figure 34 presents the FY18 competency proficiency ratings across the 12 FAC-COR competencies compared to FY14 and FY16.

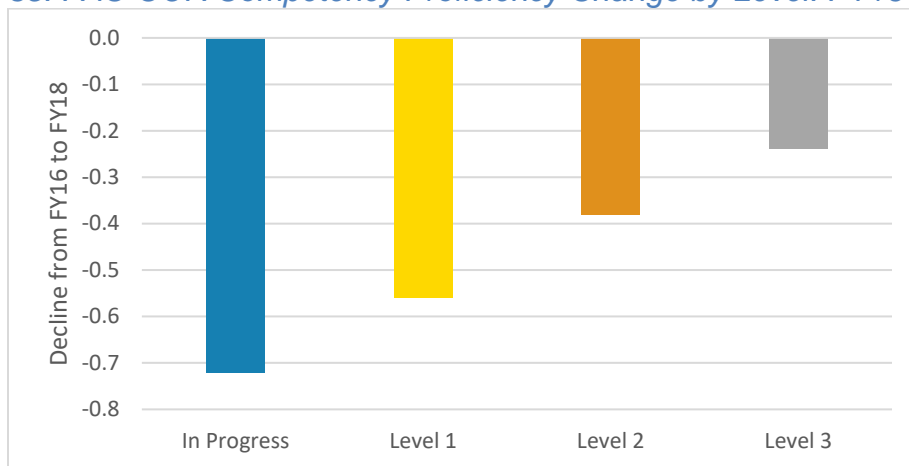
Figure 34: FAC-COR Competency Proficiency FY14–18



The highest rated competencies for proficiency were *Effective Inspection and Acceptance* (2.67), *Business Acumen and Communication Skill Sets* (2.63), and *Contract Quality Assurance & Evaluation* (2.57). Most competencies were scored between Basic (1) and Intermediate (3). The two lowest scoring competencies—*Effective Communication* (1.83) and *Contract Negotiation* (1.68)—scored below 2.0 and experienced sharp declines.

Across all 12 competencies, ratings declined from FY14 and FY16 as shown in Figure 35.<sup>13</sup> The FAC-COR certification area saw declines in similar areas to the FAC-C certification area. Declines were largest, 0.7 points lower, for respondents who identified as In Progress and were smallest for Level 3 holders. For more information regarding the competency proficiencies broken down by FAC-COR level, see Appendix D.

Figure 35: FAC-COR Competency Proficiency Change by Level: FY16 to FY18



### FAC-COR Competencies: Proficiency vs Time Spent

In addition to their proficiency, the AWCS asked respondents to report their time spent for each competency and performance outcome. This section analyzes the relationship between these two factors.

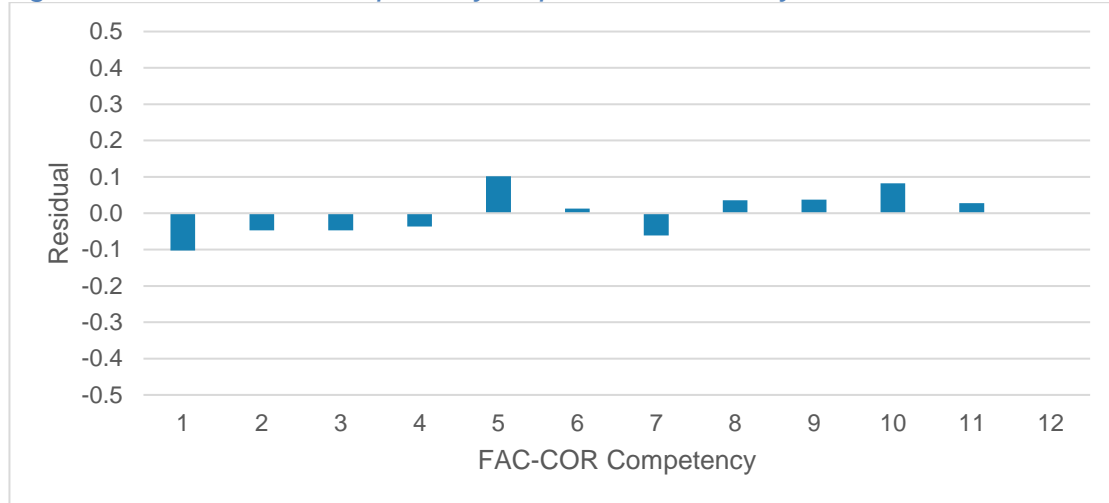
To begin, FAI calculated a correlation coefficient to understand the relationship between average time spent and average proficiency for the 12 FAC-COR competencies. The coefficient revealed that for FAC-COR, time spent accounted for 96% of the variance in competency proficiency, which means that there is a very strong relationship between the two variables. Appendix D, Table D-4 shows the relationship between these two variables.

Using the two variables, FAI calculated a linear regression to predict a competency proficiency rating based on the time spent. Using the regression line, the differences between the actual and predicted competencies, the residuals, were calculated. Figure 36 shows the residuals for each FAC-COR competency. A negative bar for a given competency implies that the workforce self-reported lower than the predicted

<sup>13</sup> All declines are statistically significant at the  $p < .05$  level. See the methodology section for a potential explanation of the decline in scores.

proficiency on that competency, considering the amount of time spent. A positive bar for a given competency implies the workforce self-reported higher than the predicted proficiency on that competency, considering the amount of time spent.

Figure 36: FAC-COR Competency Reported Proficiency vs Predicted Proficiency



LEGEND	
1 Acquisition Planning	7 Contract Administration Management
2 Market Research (Understanding the Marketplace)	8 Effective Inspection & Acceptance
3 Defining Government Requirements	9 Contract Quality Assurance & Evaluation
4 Effective Pre-Award Communication	10 Contract Closeout
5 Proposal Evaluation	11 Contract Reporting
6 Contract Negotiation	12 Business Acumen and Communications Skill Sets

FAC-COR holders reported stronger than predicted proficiency compared to time spent on *Proposal Evaluation* and *Contract Closeout*, whereas respondents reported slightly weaker than expected competency compared to their time spent on *Acquisition Planning* and *Contract Administration Management*. Compared to the residuals for FAC-C respondents, residuals for FAC-COR holders are small, suggesting that time spent is a very strong predictor of proficiency.

### FAC Performance Outcomes: Proficiency vs Time Spent

In addition to rating the proficiency and time spent across each of the FAC-COR competencies, respondents also provided the same proficiency and time spent self-evaluations for the performance outcomes associated with each competency. The performance outcomes align with a specific competency and represent actions or behaviors that are exhibited when performing activities related to the competency. Each competency has one or more associated performance outcomes.

Using the same method described when comparing competency to time spent, a linear regression and residuals were calculated for FAC-COR performance outcomes. Additional tables presenting this information can be found in Appendix D. Table 2 shows the performance outcomes that had the highest and lowest residuals, meaning that they



had the highest and lowest levels of proficiency relative to what the regression model predicted based on time spent.

*Table 2: FAC-COR Performance Outcomes with the Highest and Lowest Residuals*

FAC-C Performance Outcomes: Highest Residual		Residual
5c. Ethics—Ability to demonstrate ethical conduct during the procurement process.		0.24
10c. Contractor Final Payments—Identify conditions for final payment to the Contractor.		0.15
2e. Conflict of Interest—Identifying potential conflicts of interest.		0.14
FAC-C Performance Outcomes: Lowest Residual		Residual
1d. Unpriced Contracts—Assist in the preparation of unpriced orders and contracts.		-0.13
1e. Recurring Requirements—Assist in determining whether and how to provide for recurring requirements.		-0.12
1j. Strategic Planning—Advise customers on their acquisition-related roles and acquisition strategies needed to assure that supplies and services are available to meet mission requirements.		-0.12

For FAC-COR performance outcomes, *Ethics—Ability to demonstrate ethical conduct during the procurement process*, received the highest rating relative to its predicted proficiency, while *Unpriced Contracts—Assist in the preparation of unpriced orders and contracts*, received the lowest rating. All the lowest rated performance outcomes in terms of residuals belong to the *Acquisition Planning* competency. However, FAC-COR holders reported spending very little time on activities within the *Acquisition Planning* competency.

## FAC-COR Summary

The FY18 FAC-COR demographics and employment characteristics were relatively consistent with those from FY16. FAC-COR respondents came from a broad range of occupational series, with the 343 series (Management and Program Analysis) being the most common. In addition, over half of respondents holding a FAC-COR were Level 2. The most common pay grades for FAC-COR holders were GS-12 for the lower levels and GS-13 for the higher levels. Age ranges spanned the entire spectrum, with 51–55 years being the most common age category. While acquisition experience varied by level, the most common category of experience was 1–3 years, followed closely by 6–10 years. The largest segment of FAC-COR holders spent 0–25% of their time on acquisition-related activities.

Across the board, the FY18 proficiency ratings and performance outcomes were lower than in FY16. The competencies with the highest proficiency ratings were *Effective Inspection and Acceptance*, *Business Acumen and Communication Skill Sets*, and *Contract Quality Assurance & Evaluation*. Two competencies scored below foundational (2) and experienced sharp declines: *Effective Communication* and *Contract Negotiation*. Respondents reported spending the least amount of time on these competencies—skills more typically utilized by FAC-C holders—which may explain the low scores. For the last three surveys, *Effective Communication* has been the lowest or second lowest rated

competency proficiency. Declines were largest for respondents who identified as In Progress.

There was a very strong relationship between time spent and proficiency for FAC-COR competencies. For FAC-COR performance outcomes, *Unpriced Contracts—Assist in the preparation of unpriced orders and contracts* scored the lowest relative to what would be predicted based on time spent. The residuals for FAC-COR competencies and performance outcomes were smaller than those of FAC-C.

# Federal Acquisition Certification—Program and Project Managers

## Overview

This chapter describes the workforce profile, competency proficiencies, and performance outcomes for verified FAC-P/PM respondents. Overall, there were 4,388 verified FAC-P/PM holders included in the workforce profile analysis and 2,218 verified FAC-P/PM holders included in the competency proficiencies and performance outcome analyses. Not all verified FAC-P/PM respondents completed the competency survey section, which is why the numbers differ.

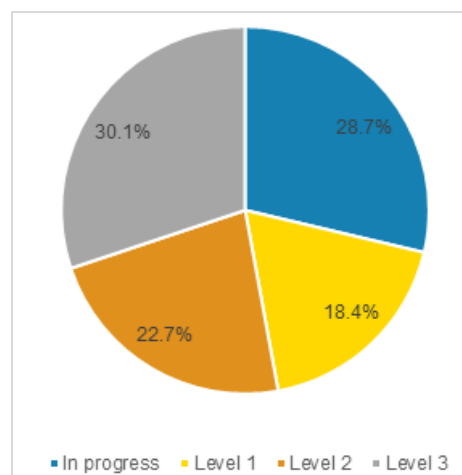
## Workforce Profile

In this section, the 4,388 verified FAC-C holders are described using workforce profile characteristics.

### Certification Level

FAC-P/PM holders receive certification at three levels, each of which requires holders to meet increasing training and experience standards. “In Progress” refers to individuals who are attaining training and experience to earn a Level 1 certification. Figure 37 shows the overall composition of the 4,388 FAC-P/PM respondents. A plurality of respondents held a Level 3 certification (30.1%), closely followed by In Progress (28.7%), Level 2 (22.7%), and Level 1 (18.4%) FAC-P/PM holders. Compared to the other FAC areas, FAC-P/PM holders were relatively evenly distributed across levels.

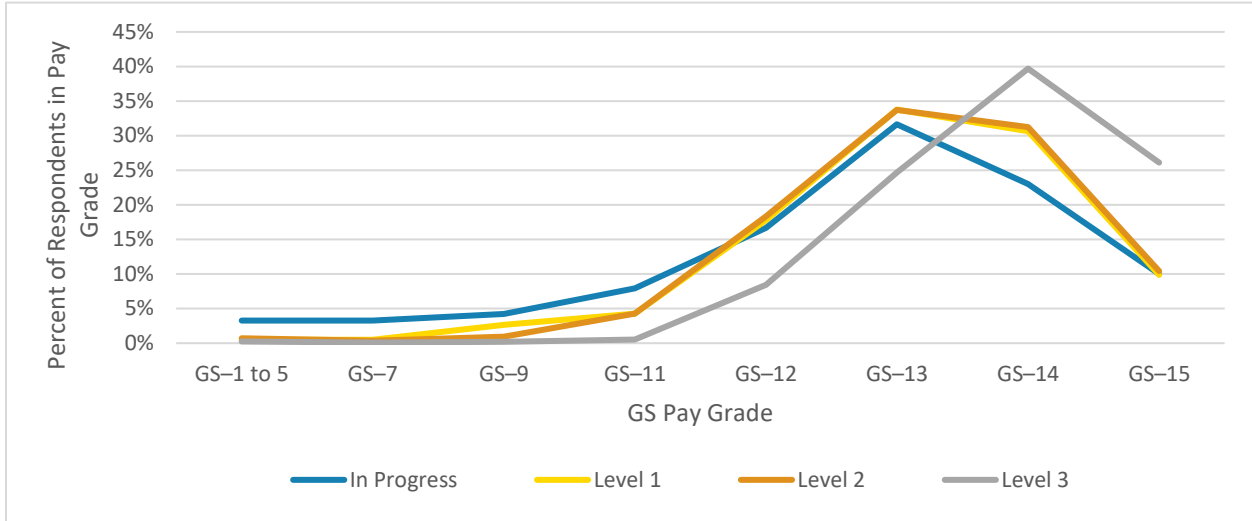
*Figure 37: FAC-P/PM Verified Survey Respondents by Certification Level*



### Pay Grade

Figure 38 shows the percent of FAC-P/PM holders at each GS pay grade. In general, FAC-P/PM holders of higher levels belong to higher pay grades. In Progress, Level 1, and Level 2 FAC-P/PM holders were most likely to be in the GS-13 pay grade, while Level 3 holders were most likely GS-14 or above. FAC-P/PM holders belong to the highest pay grades of all the FAC areas.

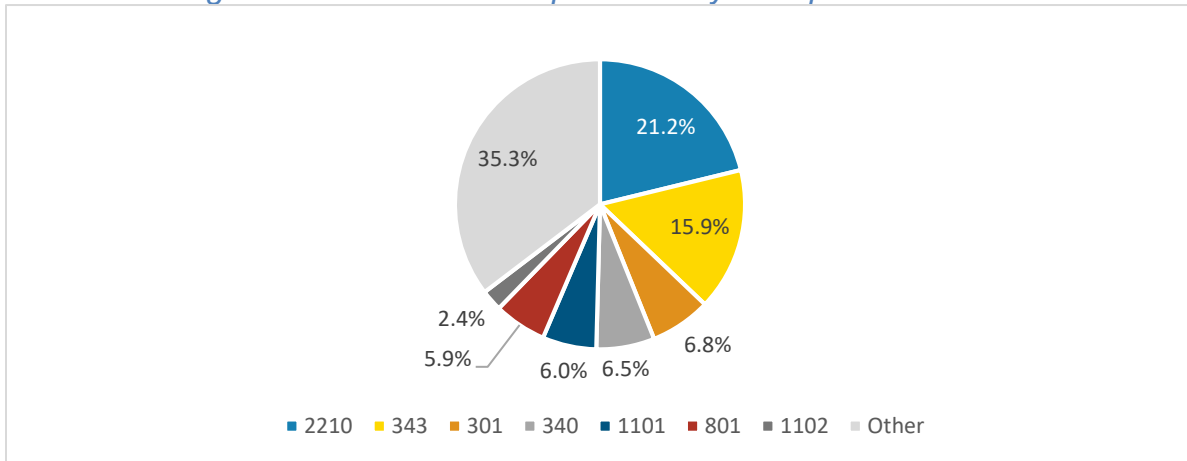
Figure 38: FAC-P/PM Respondents by GS Pay Grade



### Occupational Series

FAC-P/PM holders are dispersed among many job series. The largest segment is in 2210 (Information Technology Management), followed by 343 (Management and Program Analysis). The most common occupational groups for FAC-P/PM holders were 1100 (Business and Industry), 300 (General Administrative, Clerical, and Office Services), 2200 (Information Technology), and 800 (Engineering and Architecture).<sup>14</sup> Figure 39 shows the percentage of FAC-P/PM respondents in each occupational series.

Figure 39: FAC-P/PM Respondents by Occupational Series



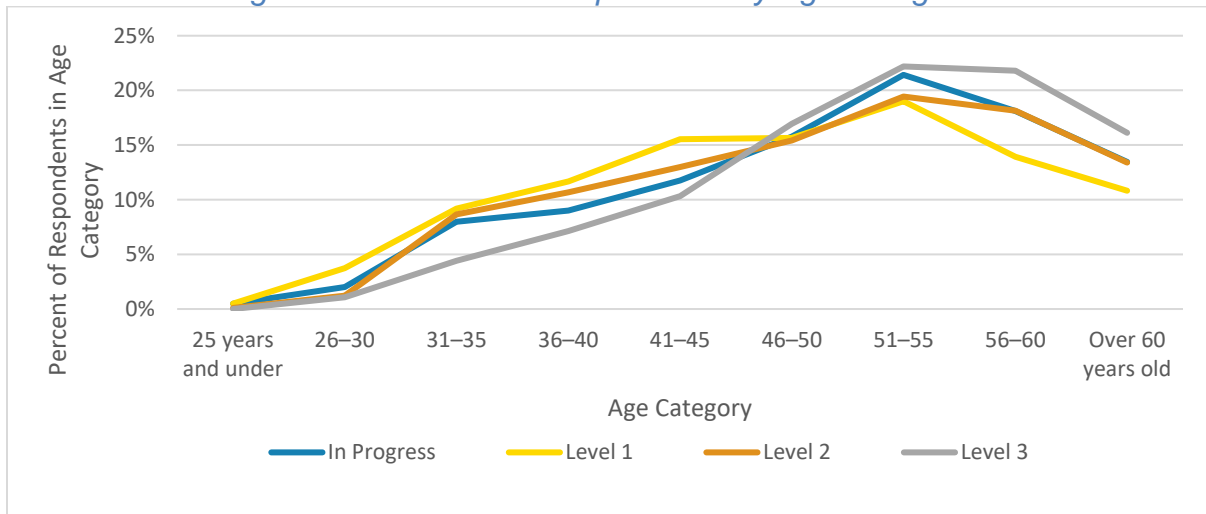
### Age Category

The most common age category for FAC-P/PM holders was 51–55 years of age. For all certification levels, the percentage of FAC-P/PM holders in each age category rose to a peak at 51–55 years before declining in the older age groups. As might be expected,

<sup>14</sup> Occupational series, such as 1101 and 1102, fall within larger occupational groups, such as 1100.

Level 3 FAC-P/PM holders had greater representation in the older age categories. The percent of respondents in each age category is presented in Figure 40.

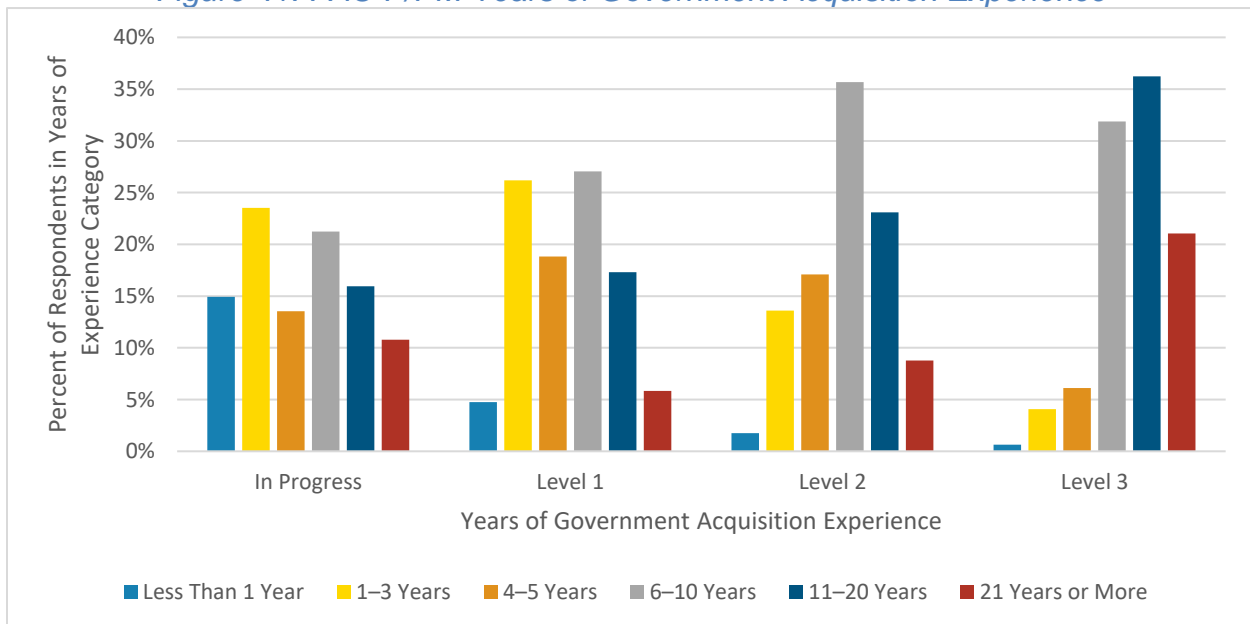
*Figure 40: FAC-P/PM Respondents by Age Categories*



### Years of Government Acquisition Experience

Figure 41 displays the years of government acquisition experience of FAC-P/PM holders. Similar to the other FAC areas, those who identified themselves as In Progress were most likely to have 1–3 years of experience. Levels 1 and 2 FAC-P/PM holders were most likely to have 6–10 years of experience and Level 3 FAC-P/PM holders were most likely to have 11–20 years of experience.

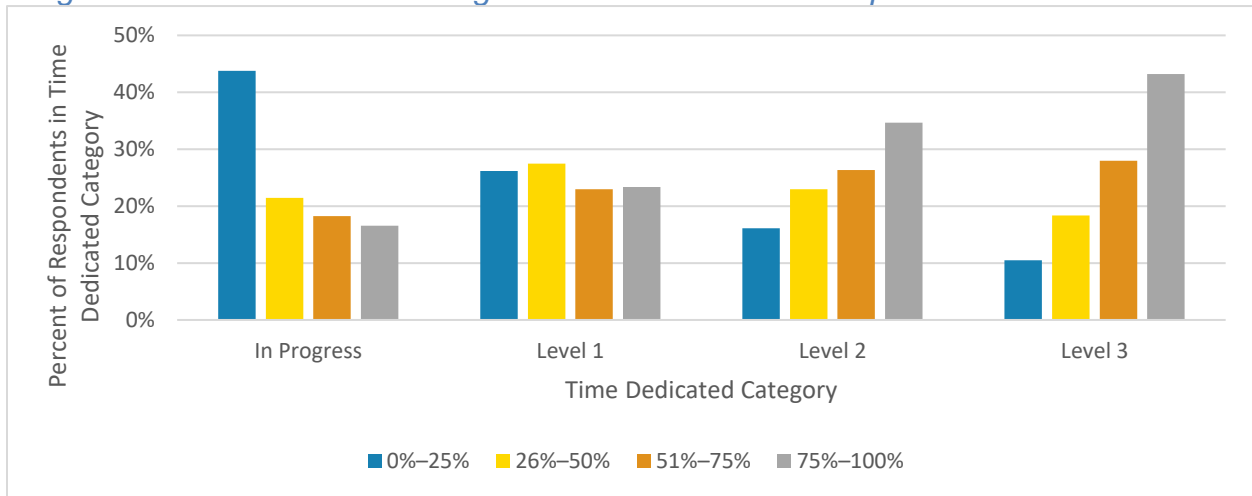
*Figure 41: FAC-P/PM Years of Government Acquisition Experience*



### Time Dedicated to Acquisition-Related Activities

Higher-level FAC-P/PM holders spend more of their time on FAC-P/PM responsibilities than those with lower level certifications. The most common response for In Progress FAC-P/PM holders was 0–25%. Level 1 FAC-P/PM holders were relatively evenly distributed across all time dedicated categories. For Levels 2 and 3 FAC-P/PM holders, the most common response was 75–100% of time dedicated. This implies that FAC-P/PM responsibilities increase from part-time for entry-level FAC-P/PM holders, to full time for more experienced FAC-P/PM holders. Figure 42 shows how much time FAC-P/PM holders dedicated to acquisition-related activities.

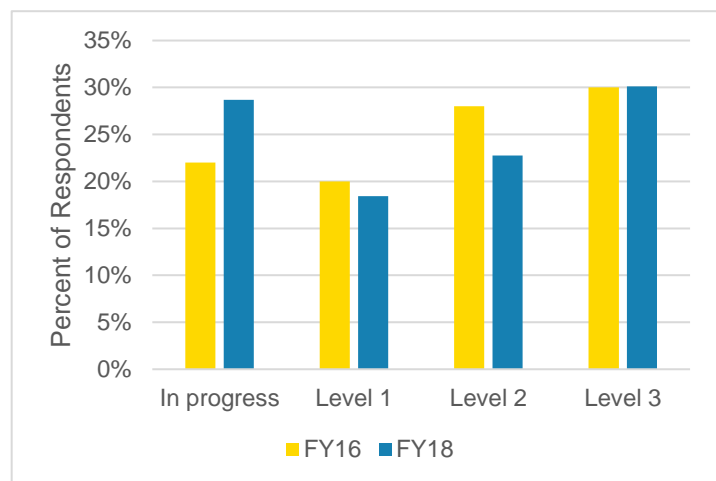
Figure 42: FAC-P/PM Percentage of Time Dedicated to Acquisition-Related Activities



### Major FAC-P/PM Workforce Changes from FY16

Compared to the FY16 survey respondents, the FY18 FAC-P/PM respondents held lower level certifications. As shown in Figure 43, in FY18, a higher proportion of respondents were in the In Progress category, with fewer in the Level 2 category. The most common range of acquisition experience for FAC-P/PM holders in FY18 was 6–10 years, compared to 11–20 years in FY16. The most common age categories, grade levels, and occupational series remained the same as in FY16.

Figure 43: FAC-P/PM Level FY16 to FY18

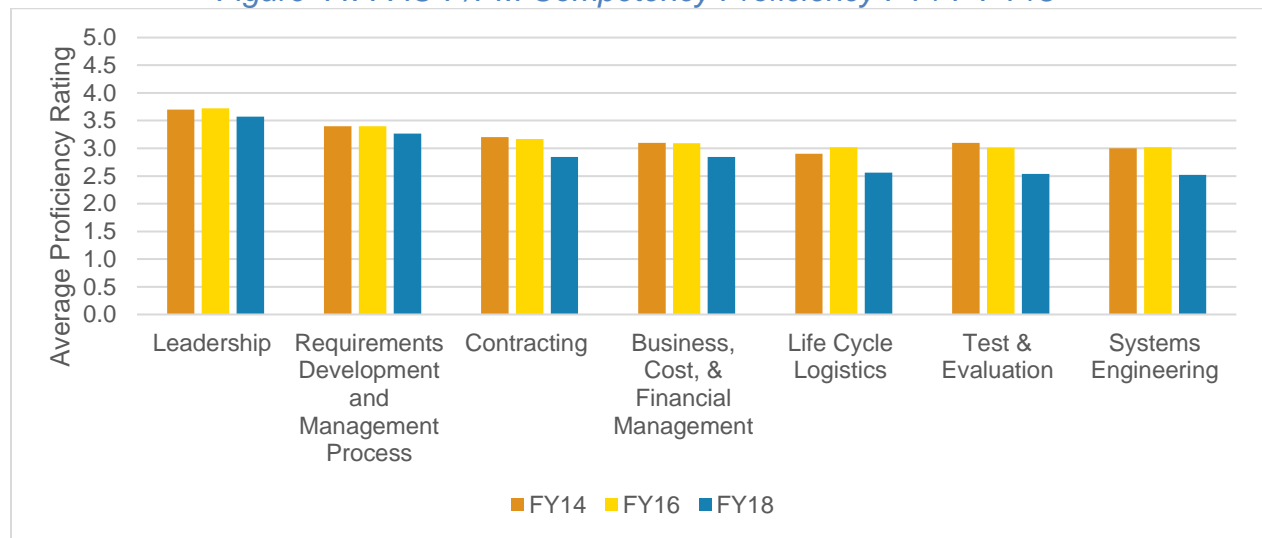


## FAC-P/PM Competencies

The FY18 AWCS participants who identified themselves as FAC-P/PM certified were asked to rate their proficiencies and time spent across the FAC-P/PM competencies. The FY18 survey asked FAC-P/PM holders to respond to seven competencies, as did the FY16 and FY14 surveys. This FAC-P/PM Competencies section presents analysis of the 2,218 respondents who held FAC-P/PM holders and completed the competency section.

Figure 44 presents the FY18 competency proficiency ratings across the seven FAC-P/PM competencies compared to FY14 and FY16.

Figure 44: FAC-P/PM Competency Proficiency FY14–FY18

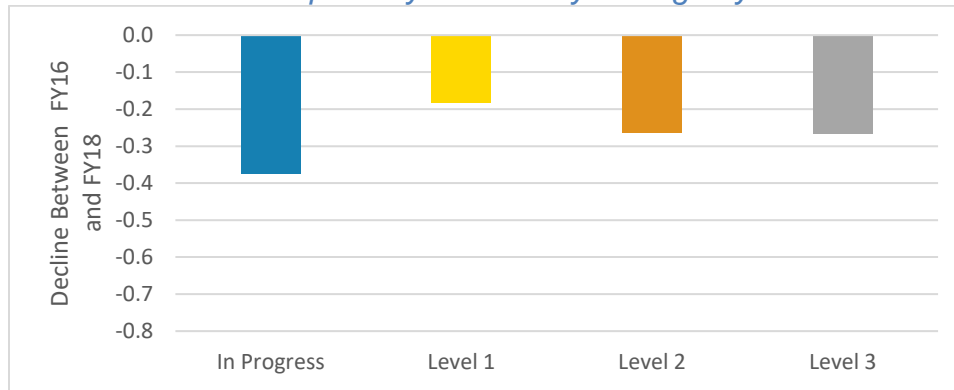


The highest scoring competencies were *Leadership* (3.57) and *Requirements Development and Management Process* (3.26), each of which rated between the intermediate (3) and advanced (4) levels. However, across the seven competencies, the ratings show a declining trend from FY16 levels.<sup>15</sup> The three lowest scoring competencies—*Life Cycle Logistics* (2.56), *Test & Evaluation* (2.54), and *Systems Engineering* (2.52)—experienced sharp declines.

The decline in scores was not uniform across certification levels. As presented in Figure 45, In Progress respondents declined the most since FY16. Unlike FAC-C and FAC-COR holders, Level 1 FAC-P/PM holders reported the smallest decline.

<sup>15</sup> All declines are statistically significant at the  $p < .05$  level. See the methodology section for a potential explanation of the decline in scores.

Figure 45: FAC-P/PM Competency Proficiency Change by Level: FY16 to FY18



For more information regarding the competency proficiencies broken down by FAC-P/PM level, see Appendix E.

### FAC-P/PM Competencies: Proficiency vs Time Spent

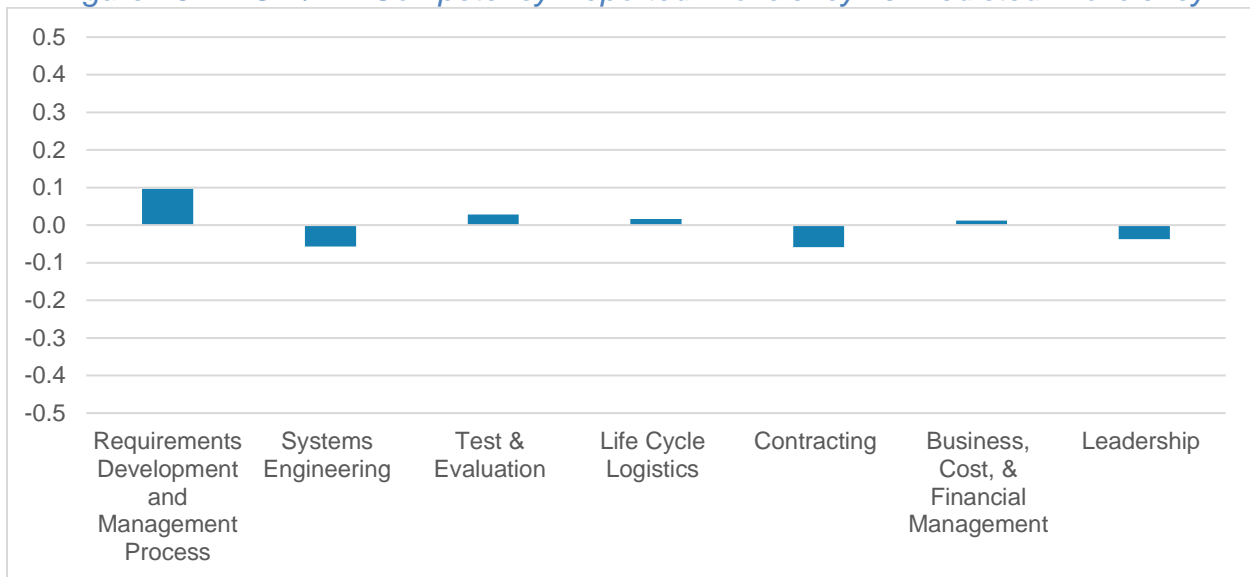
In addition to their proficiency, the AWCS asked respondents to report their time spent for each competency and performance outcome. This section analyzes the relationship between these two factors.

As a starting point, FAI calculated a correlation coefficient to understand the relationship between the average time spent and the average proficiency for the seven FAC-P/PM competencies. The coefficient revealed that for FAC-P/PM, time spent accounted for 98% of the variance in competency proficiency. This means there is a very strong relationship between the two variables, as depicted in Table E-4 in Appendix E.

Using the two variables, FAI calculated a linear regression to predict a competency proficiency rating based on the time spent. The differences between the actual and predicted competencies, known as residuals, were calculated using the regression line. Figure 46 shows the residuals for each FAC-P/PM competency. A negative bar for a given competency implies that the workforce self-reported lower than the predicted proficiency on that competency, considering the amount of time spent. A positive bar for a given competency implies the workforce self-reported higher than the predicted proficiency on that competency, considering the amount of time spent.



Figure 46: FAC-P/PM Competency Reported Proficiency vs Predicted Proficiency



FAC-P/PM holders reported having strong skills compared to time spent in the *Requirements Development and Management Process* competency and reported weaker skills compared to their time spent in both the *Systems Engineering* and *Contracting* competencies. Compared to the FAC-C residuals, residuals for FAC-P/PM holders are small, suggesting that time spent is a very strong predictor of proficiency.

#### FAC Performance Outcomes Proficiency vs Time Spent

In addition to rating the proficiency and time spent across each of the FAC-P/PM competencies, respondents also self-evaluated proficiency and time spent on performance outcomes associated with each competency. The performance outcomes align with a specific competency and represent actions or behaviors that are exhibited when performing activities related to the competency. Each competency has one or more associated performance outcomes.

Using the same method described when comparing competency to time spent, a linear regression and residuals were calculated for FAC-P/PM performance outcomes. Additional tables presenting this information can be found in Appendix E.

Each FAC-P/PM level has a unique set of performance outcomes, so the linear regression and residuals were calculated three times. Of the three analyses, only Level 2 had notable residuals, so only those residuals will be discussed in this section. Table 3 shows the Level 2 performance outcomes with the highest and lowest residuals, meaning that they had the highest and lowest levels of proficiency relative to what the predicted regression model predicted based on time spent.

Table 3: FAC-P/PM Level 2 Performance Outcomes with the Highest and Lowest Residuals

FAC-P/PM Performance Outcomes: Highest Residual	Residual
1k. Apply effective oral and written capabilities to communicate project needs and expectations.	0.83
6d. Employ techniques to adjust program strategies when EVM indicators indicate high risk or threaten a breach of a program threshold.	0.16
6b. Apply the 1 concepts of EVM, including cost and schedule program status indicators, and illustrate how EVM relates to managing program risk.	0.14
FAC-P/PM Performance Outcomes: Lowest Residual	Residual
1j. Formulate the key features of a risk/opportunity management process.	-0.77
2m. Compare and contrast the common software acquisition strategies and software development paradigms.	-0.22
2l. Comprehend the major provisions of the Information Technology Management Reform (Clinger-Cohen) Act.	-0.21

Note: EVM = Earned Value Management.

For FAC-P/PM Level 2 performance outcomes, there were two major outliers. Proficiency ratings were significantly higher for *Apply effective oral and written capabilities to communicate project needs and expectations* than predicted by time spent. Of greater concern, proficiency ratings were significantly lower for *Formulate the key features of a risk/opportunity management process* than the model predicted. FAC-P/PM holders reported spending a fair amount of time on these actions.

## FAC-P/PM Summary of Findings

The FY18 FAC-P/PM demographics and employment characteristics were relatively consistent with those from FY16 based on the available data. FAC-P/PM holders came from a broad range of job series, 2210 being the most common. Although FAC-P/PM holders were well distributed across certification levels, the largest segment of respondents was Level 3. The most common pay grades for FAC-P/PM holders were GS-13 for the lower levels and GS-14 for the higher levels. Age ranges span the entire spectrum, but 51–55 years was the most common age category. While acquisition experience varies by level, the most common category of experience was 6–10 years, followed closely by 11–20 years. The largest segment of FAC-P/PM holders dedicated 75–100% of their time to acquisition-related activities, but the workforce was relatively well distributed across all levels of effort. Compared to FY16, there were slightly more survey respondents in FY18 in the lower levels, especially In Progress, and slightly fewer in the higher levels.

Across the board, the FY18 proficiency ratings and performance outcomes were lower than in FY16. The highest scoring competencies were *Leadership* and *Requirements Development and Management Process*. Three competencies were rated below 2.5 and experienced sharp declines: *Life Cycle Logistics*, *Test & Evaluation*, and *Systems Engineering*. These three had the least amount of time spent, and have been the lowest

scoring competencies in the last three surveys. Declines were largest for those at the In Progress level.

There was a very strong relationship between time spent and proficiency for FAC-P/PM competencies. Most FAC-P/PM performance outcomes had proficiency competencies that correlated with time spent. The major exceptions were among Level 2 FAC-P/PM holders, who rated their proficiency for *Apply effective oral and written capabilities to communicate project needs and expectations* far higher than would be predicted by time spent. Of greater concern, the FAC-P/PM holders also rated their proficiency in *Formulate the key features of a risk/opportunity management process* notably lower than the model would predict.

# Business Competencies

Similar to previous versions of the survey, the FY18 AWCS asked FAC respondents to rate their proficiencies across business competencies, which are the fundamental skills that help support sound acquisition practices. Unlike the competencies that are FAC area specific, the business competencies span the three FAC areas and are equally important for all members of the acquisition workforce. All survey respondents had the opportunity to respond to this section, but this analysis only included the responses from those who were verified FAC holders. In total, 22,444 responses were analyzed for this section.

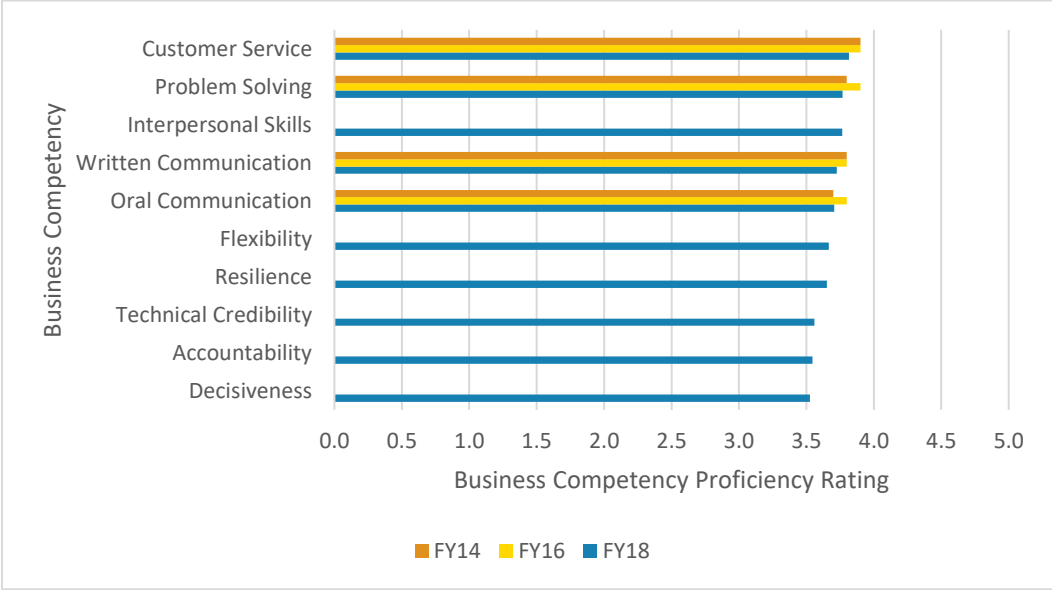
Between FY16 and FY18, the business competency model increased from six to 10 competencies. Only four of the current competencies had been used in previous years, and were used only for FAC-C respondents. In FY18, business competencies were used for all FAC areas (FAC-C, FAC-COR, and FAC-P/PM). Proficiency was rated on the same six-point scale used for the FAC competencies described in the previous sections.

## Historical Comparisons

The FY18 AWCS proficiency ratings for all of the business competencies either remained constant or decreased slightly from the FY14 and FY16 ratings. For the four competencies used since FY14, the ratings decreased by approximately one tenth of one response point in FY18.

Figure 47 presents the proficiency ratings across all business competencies. For four of the business competencies, historical comparisons are shown from the FY16 and FY14 AWCS. It should be noted that the historical ratings only included respondents who were FAC-C holders (who tended to rate themselves higher), whereas the FY18 ratings included respondents from all FAC areas.

*Figure 47: Business Competency Proficiency Ratings FY14–18*

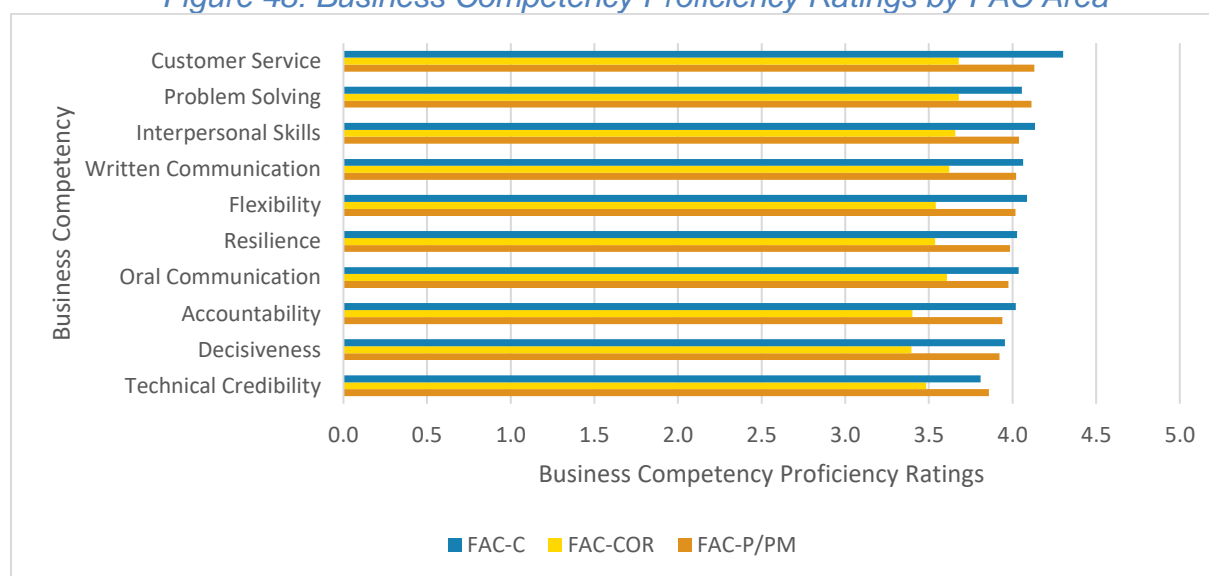


As seen in Figure 47, the *Customer Service* business competency had the highest rated average proficiency of the 10 competencies (3.82), while *Decisiveness* (3.53) had the lowest average proficiency rating. The proficiencies for longstanding business competencies were generally higher than those of the newly added business competencies.

## FAC Area Comparison

Figure 48 illustrates the average proficiency rating across each of the 10 business competencies by the three FAC areas. The average ratings in all FAC areas were between the intermediate and advanced range on all business competencies, suggesting that the FAC workforce generally has confidence in its business-related abilities.

Figure 48: Business Competency Proficiency Ratings by FAC Area



Overall, both FAC-C and FAC-P/PM holders ranked their business competencies around the Advanced level (4). FAC-COR holders rated their business competencies approximately 0.5 points lower than those in the other two areas. All three FAC areas reported the highest proficiency in the *Customer Service* business competency. FAC-C holders and FAC-P/PM holders reported the lowest proficiency in the *Technical Credibility* competency, while FAC-COR holders reported *Accountability* and *Decisiveness* as the lowest proficiency competencies.

## Business Competencies Summary of Findings

The ratings of the four business competencies from FY14 and FY16 decreased slightly in FY18. The *Customer Service* business competency had the highest rated average proficiency across all of the competencies, while *Decisiveness* ranked the lowest. Both FAC-C and FAC-P/PM holders rated their business competencies around the Advanced level (4) and FAC-COR holders rated their business competencies 0.5 points lower.

# Acquisition Workforce Supervisors

In the FY18 AWCS, individuals who supervise members of the acquisition workforce were asked to rate their agreement with a series of eight statements related to their acquisition staff. In total, 4,028 supervisors rated their agreement with the eight statements. Seventy-one percent of the supervisors who responded to the survey (2,867) held a FAC and were able to participate in the survey as both a FAC holder and as a supervisor. This section only discusses responses relative to the supervisor section of the survey.

As shown in Figure 49, 67.5% of supervisors indicated that they supervise 1–5 acquisition staff, and only 13.8% indicated that they supervise more than 10 acquisition workforce members.

Figure 49: Number of Acquisition Employees Supervised

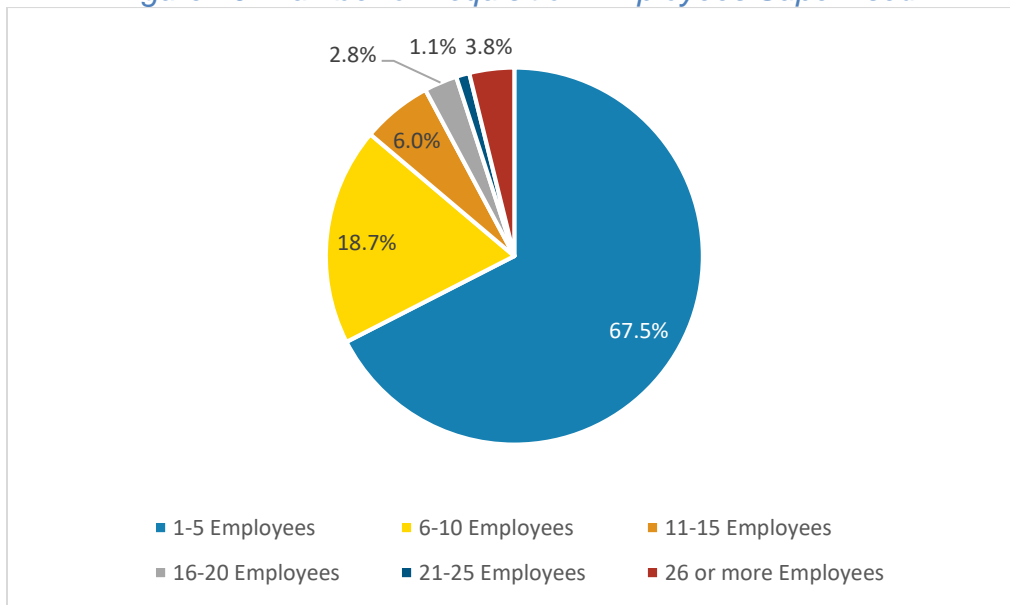


Figure 50 presents the average agreement score on the eight supervisory-related statements compared to the average scores from the FY16 survey. The agreement score was based on a five-point scale ranging from Strongly Disagree to Strongly Agree.<sup>16</sup>

<sup>16</sup> For more details on the supervisor agreement scale, review the Survey Method and Structure chapter.

Figure 50: Average Results of Supervisors of the Acquisition Workforce Members with Regard to their Staff



Supervisors most strongly agreed with the statement *My acquisition staff members are effective in helping the agency fulfill its mission*, assigning an average rating of 4.10 to this metric in FY18. Supervisors least strongly agreed with the statement *My acquisition staff members have an appropriate amount of time to complete operations and also participate in mentoring/coaching and on-the-job training*, assigning an average rating of 3.36 in FY16 and FY18.

All but one of the eight supervisory ratings declined from FY16 to FY18, generally decreasing between 0.1 and 0.2 points.

### Acquisition Workforce Supervisors Summary of Findings

Among supervisors, 67.5% indicated that they supervise 1–5 acquisition workforce staff. Supervisors rated the statement *My acquisition staff members are effective in helping the agency fulfill its mission* highest in FY18, while *My acquisition staff members have an appropriate amount of time to complete operations and also participate in mentoring/coaching and on-the-job training* was rated lowest.

# Retention Statements

In the FY18 AWCS, individuals were asked to rate their satisfaction for concepts encapsulated in 32 statements related to workplace characteristics that could influence their decision to leave their organization or government. They rated these characteristics by their satisfaction on a five-point scale from Very Satisfied to Very Dissatisfied.<sup>17</sup> These individual decisions combine to determine the organization’s retention ability. All survey respondents had the opportunity to respond to this section of the survey, but this analysis only included the responses from those who were verified FAC holders. In total, 22,142 responses were analyzed for this section.

Questions were grouped into the following seven categories:

- Compensation and Awards,
- Acquisition Job/Role,
- Agency’s Senior Leadership,
- Immediate Supervisor,
- Acquisition-Related Work Environment,
- Professional Training and Development, and
- Work-Life Balance.

## Historical Comparisons

Table 4 compares responses to the retention statements between FY16 and FY18, showing the statements with the biggest ratings differences and those with the smallest differences. The full comparison can be found in Appendix F.

*Table 4: Items with the Greatest Change in Satisfaction between FY16 and FY18*

Greatest Increases		Greatest Decreases	
My sense of contribution to the agency’s mission and goals.	0.09	Opportunities for flexible, part-time, or alternative work schedules.	-0.03
My co-workers willingness to share knowledge and resources.	0.08	My salary compared to what employers in the private sector offer.	-0.01
My access to training and development opportunities.	0.07		
The technical competence of my co-workers.	0.07		
The quality of training and development I have received.	0.07		

As all changes were less than a 0.1 difference, the ratings were quite similar between the years. Although small, the responses to retention statements were more positive overall in FY18 than in FY16. The statement with the largest increase in level of satisfaction, *My sense of contribution to the agency’s mission and goals*, increased 0.09 points. The statement with the largest decrease, *Opportunities for flexible, part-time, or alternative work schedules*, declined 0.03 points. Only two questions received lower

<sup>17</sup> The satisfaction scale for rating the retention statements can be found in the Survey Method and Structure chapter.



scores in FY18 than in FY16, suggesting a slight increase in workplace satisfaction overall among FAC workforce members.

## Retention Statement Ratings

Of the 32 statements, the five highest rated statements were related to immediate supervisors, as shown in Table 5. By comparison, the statement with the lowest average rating for employee retention was related to salary, at 2.98.

*Table 5: Items with Greatest and Least Reported Satisfaction*

Greatest Satisfaction		Least Satisfaction	
My relationship with my supervisor.	4.04	My salary compared to what employers in the private sector offer.	2.98
The support from my supervisor.	3.99	The policies and decisions set by senior leadership.	3.11
My supervisor's technical competence.	3.94	The adequacy of communication received from senior leaders regarding agency goals, priorities and decisions.	3.13
Frequency of communication with my supervisor.	3.91	The level of my workload.	3.31
Quality of communication with my supervisor.	3.91	Opportunity for a desirable career path.	3.37

The full list of statements, broken down by FAC area, can be found in Appendix F.

## FAC Area Comparison

Of the three FAC areas, FAC-C holders generally had the highest levels of satisfaction in their jobs, reporting the highest level of satisfaction on 20 of the 32 statements. However, the average rating for each FAC area was within 0.03, suggesting that all have relatively similar levels of workplace satisfaction.

Other interesting observations emerged when comparing the responses between the three FAC areas. FAC-P/PM holders reported a higher level of satisfaction than the other FAC certification areas regarding professional training and development, specifically management's support for pursuing professional development opportunities, access to training and development opportunities, and the quality of training and development received. FAC-P/PM holders reported much lower satisfaction regarding salary compared to what employers in the private sector offer. While FAC-C holders had higher average ratings overall, two statements for which they exceeded the other two FAC areas by more than 0.10 were related to the fit between their skills and job duties and the opportunity for a desirable career path.

Among FAC holders, FAC-P/PM holders were most satisfied with their professional training, but least satisfied with their pay compared to the private sector.

## Retention Statements Summary of Findings

The responses to retention statements were slightly more positive in FY18 than in FY16. The statement with the largest increase in level of agreement was *My sense of contribution to the agency's mission and goals* which increased 0.09 points. Ratings for the statement about opportunities for flexible, part-time, or alternative work schedules declined by 0.03 points. Of the 32 retention statements, *My relationship with my supervisor* rated highest overall, with an average rating of 4.04, while the lowest rated statement was *My salary compared to what employers in the private sector offer* with an average rating of 2.98. FAC-C holders generally had the highest levels of satisfaction in their jobs, but FAC-P/PM holders gave the highest ratings to statements regarding their professional training and development.

## Conclusion

FAI, in partnership with OFPP, administered the AWCS to identify the strengths and priority training needs of the federal civilian acquisition workforce; gauge progress toward developing a qualified and capable civilian acquisition workforce; and inform acquisition human capital planning across the federal government.

In its sixth iteration, this year's survey had more respondents than any past survey, ensuring that responses were more representative of the acquisition workforce members as a whole. Moreover, the verification process assured greater validity by ensuring that only those who hold FACs were included in the survey analysis. Thus, the FY18 AWCS resets the baseline for this data. Moving forward, FAI will have a robust and valid set of data against which to compare survey results from FY20 and beyond.

The FY18 AWCS results highlighted areas of strength for each FAC area as well as the workforce as a whole. Among FAC-C holders, proficiency in the *Contract Award, Competition, and Solicitation of Offers* competencies rated higher than the other FAC-C competencies. The highest rated competency proficiencies for FAC-COR holders were *Effective Inspection and Acceptance* and *Business Acumen and Communication Skill Sets*, and FAC-P/PM holders rated themselves the strongest in the *Leadership and Requirements Development and Management Process* competencies.

Conversely, competency proficiencies in negotiating forward pricing rates agreements and contracting in contingent or combat environments rated the lowest for FAC-C holders. Two competencies that FAC-COR holders reported as their lowest proficiencies were *Effective Communication* and *Contract Negotiation*. The *Systems Engineering* competency rated as the weakest proficiency among FAC-P/PM holders.

There also were some notable findings from the business competency, supervisory, and retention areas of the survey. Overall, FAC holders rated their business competency as being in the intermediate to advanced range, with ratings highest among FAC-C holders and FAC-P/PM holders. Supervisors most agreed that their acquisition staff were effective in helping the agency fulfill its mission, but least agreed that their staff had time to do their jobs and participating in training. Across the acquisition workforce, FAC-C holders were the most satisfied, followed closely by FAC-COR holders. Interestingly, FAC-P/PM holders report the highest level of satisfaction with the support they receive from leadership for training and development, and the quality of and access to training and development.

Although the addition of new competencies to the FY18 AWCS makes historical comparisons difficult, data from the AWCS can be used by agency acquisition leaders to prioritize skill gaps and assess workforce development needs going forward. For FY18, the top and bottom rated competencies are consistent with past years. While FAC holders reported maintaining an intermediate to advanced proficiency range with respect to business competencies, consistent with FY16 results, proficiencies for all competencies declined. Of all FAC areas, FAC-COR holders had the largest decline in ratings compared to FY16 results. Supervisory ratings about their acquisition staff

sssgenerally ranked the same as in the FY16 AWCS. However, as mentioned throughout this report, the changes in methodology and analysis make it difficult to infer that there is a meaningful change in competency proficiency levels between FY16 and FY18.

Time spent continues to be highly related to competency proficiency; however, for FAC-C holders, one significant finding was that the *E-Business and Automated Tools* competency ranked much lower than expected, considering the time spent on this task. For FAC-P/PM Level 2, the performance outcome of formulating the key features of a risk/opportunity management process received vastly lower proficiency ratings than would be predicted based on time spent.

With respect to human capital planning, the demographic composition of the acquisition workforce was similar to past years. FAC-COR holders, especially those with Level 2 certifications, made up the largest segment of the acquisition workforce. Acquisition professionals were mostly likely to be 51–55 years old and a GS-13. Despite the advanced grade levels, the most common category of years of acquisition experiences was 6–10 years. These demographics are consistent with the FY16 AWCS results. Of note, millennials accounted for a small percentage of the current acquisition workforce, whereas nearly a third of the workforce is approaching or at retirement age.

Gaps identified in this report present opportunities for further analysis. The data provide insight into needs and gaps and can be used to create workforce development plans at both the agency and individual levels. FAI is committed to using the results of this FY18 AWCS to enable a more skilled and competent acquisition workforce.

# Appendix A: Methodology

As discussed in the Methodology and Survey Structure chapter, the FY18 AWCS was enhanced to include partial responses and verify respondents' information. Below are the methods for determining whether survey responses met the enhanced requirements.

## Completing the Survey Section

As discussed in the methodology section, the AWCS was designed as a branched survey. A respondent's answer to initial questions determined future questions the respondent saw. All respondents who completed the survey answered a set of FAC competency questions based on the FAC area and level they selected. Some respondents hold multiple FAC certifications, but only chose to answer questions for one area. Eight supervisory statements were presented only to those who indicated that they were supervisors.

Respondents who did not complete the entire survey but completed some sections of the survey were included in the analysis as partial responses. The survey received a total of 11,274 partial responses. Figure A-1 shows an example of three survey responses with different completion situations.

Figure A-1: Example of Partial Responses

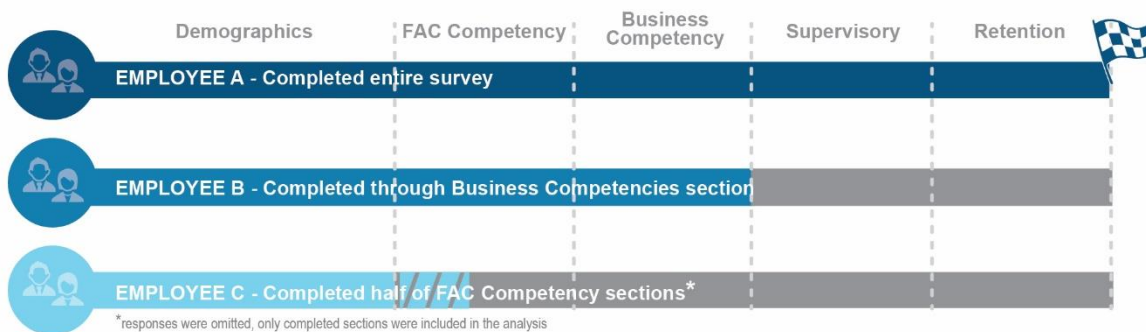


Figure A-1 displays an example of how partial responses were included in the analysis. Employee A completed all questions in each section, so all sections would be included in the analysis. Employee B completed only three of five sections, making the response a partial response. Therefore, only the completed sections would be included in the analysis (such as Demographics, FAC Competency, and Business Competency). Employee C fully completed only the Demographics section and part of the FAC Competency section. Only the responses to the Demographics section would be included in the analysis.

## Verifying Certification and Level

As a result of the FY18 AWCS improvements, FAI was able to verify FAITAS survey respondents' FAC areas and levels to ensure validity of the responses. Many respondents either did not indicate holding a specific FAC, or misidentified their FAC

area or level. By misidentifying their FAC certification, they may have answered survey sections that were not appropriate for their qualifications. Since there was no way to verify the responses for the survey Version 2 responses, all responses were included in the survey analysis.

In most cases, survey respondents who misidentified their certification area or level had their information adjusted and their responses included in the analysis. For example, if someone identified themselves as a FAC-COR Level 2 holder but was actually a FAC-COR Level 3 holder, their FAC level was corrected during data cleaning and their response was included in the FAC-COR Level 3 analysis. Similarly, if someone identified themselves as a FAC-COR holder but was actually a FAC-C holder, their FAC area was corrected during data cleaning and their responses was included in the FAC-C analysis.

Responses were included if the respondent completed the appropriate section considering their verified certification area and level. For example, if someone was a verified FAC-C Level 1 holder and answered the FAC-COR questions, their demographic information was included for the FAC-C Level 1 analysis but none of their competency responses could be included.

The range of scenarios is displayed in Table A-1 and Table A-2. The column on the left represents a respondent’s FAITAS verified certification area or level. The row on the top represents how the respondent self-identified. The content in each box represents how the responses were handled based on several scenarios. Table A-1 shows an example of the rules used for handling responses for FAC-C competency questions. The same rules apply for FAC-COR.

*Table A-1: Rules for Including Responses to FAC-C Questions*

	Self-Reported		
	FAC-C	Not FAC-C	In Progress
Verified as FAC-C	Include	Adjust to FAC-C and include	Adjust to FAC-C and include
Not Verified FAC-C	Do not include	Do not include	Adjust to FAC-C and include

Table A-2 shows an example of the rules used for handling responses specific to Level 1 question sets. The same rules apply for those who hold Level 2 or 3 certifications.

*Table A-2: Rules for Including Responses to FAC-C Questions by Self-Reported FAC-Level 1*

	Self-Reported		
	Level 1	Not Level 1	In Progress
Verified as Level 1	Include	Adjust to Level 1 and include	Adjust to Level 1 and include
Not Verified Level 1	Do not include	Do not include	Adjust to In Progress and include

Responses from FAC-P/PM holders were verified using a different technique. P/PM holders' responses could not be included if their self-reported level contradicted their FAITAS profile, because each level has a different set of competencies. For example, if a respondent completed questions for P/PM Level 3 but was actually a P/PM Level 2, their competency proficiencies and performance outcomes would be invalid and were omitted from the analysis. In Progress FAC-P/PM responses were included for Level 1 only. This is one reason why so many FAC-P/PM holders' responses were omitted from the analysis. An example of how FAC-P/PM holders who responded to Level 1 competencies is shown in Table A-3.

*Table A-3: Rules for Including Responses to FAC-P/PM Questions by Self-Reported FAC-P/PM Level 1*

	Self-Reported		
	FAC-P/PM Level 1	Not FAC-P/PM Level 1	In Progress
Verified FAC-P/PM Level 1	Include	Do not include	Include for Level 1 only
Not Verified FAC-P/PM Level 1	Do not include	Do not include	Include for Level 1 only

For all FAC areas, respondents who identified themselves as In Progress to receive a Level 1 certification were considered provisionally correct, and their responses were included. Since there was not a method to prove respondents were in progress, they were all verified and included in the analysis for their identified FAC area, including respondents for both the Version 1 and Version 2 survey.

## Appendix B: Survey Response Rate

Survey response rates were calculated using three different methods:

1. Total Version 1 surveys completed ÷ total Version 1 surveys sent
2. Total Version 1 surveys completed by FAC holders ÷ total Version 1 surveys sent to FAC holders
3. Total surveys completed by CFO Act Agency (non-DoD) workforce members ÷ total FAC workforce members as reported in the FY16 AHCP.

Method 3 is the survey response calculation used in past years and is included for historical comparison purposes. Method 2 is the calculation that FAI has adopted beginning with this survey and Method 1 is the overall survey completion.

Table B-1 displays the response rates by agency, using the three different methods.

Since NASA and NSF do not use FAITAS, there are no numbers for these agencies in Methods 1 and 2 columns. For DOS, only FAC-COR holders are included in Methods 1 and 2. Non-CFO Act agencies are not included in Method 3, because the AHCP only collects data for CFO Act agencies.

*Table B-1: Agency Response Rate*

Agency	Method 1: Total Surveys Completed/Total Surveys Sent			Method 2: FAC Surveys Completed/FAC Surveys Sent			Method 3: Total Surveys Completed/FY16 AHCP FAC Workforce Members		
	Survey Sent	Total Took Survey	Percentage Responded	FAC Certified	FAC Cert Took Survey	Percentage Responded	Total FY16 AHCP	Total Took Survey	Percentage Responded
DHS	24,145	3,497	14.5%	8,928	2,325	26.0%	10,820	3,497	32.3%
DOC	5,276	802	15.2%	2,248	545	24.2%	2,322	802	34.5%
DOE	3,317	598	18.0%	1,836	455	24.8%	1,975	598	30.3%
DOI	9,600	1,927	20.1%	4,985	1,452	29.1%	5,247	1,927	36.7%
DOJ	7,724	1,106	14.3%	3,268	745	22.8%	3,436	1,106	32.2%
DOL	1,578	348	22.1%	843	292	34.6%	798	348	43.6%
DOS	1,710	216	12.6%	360	45	12.5%	4,247	529	12.7%
DOT	7,096	1,212	17.1%	3,682	886	24.1%	3,336	1,212	36.3%
ED	1,105	215	19.5%	679	184	27.1%	640	215	33.6%
EEOC	94	8	8.5%	0	0				
EPA	6,591	1,103	16.7%	4,697	963	20.5%	5,167	1,103	21.3%
GAO	212	20	9.4%	98	13	13.3%			
GSA	8,238	1,827	22.2%	6,063	1,530	25.2%	6,595	1,827	27.7%
HHS	18,383	2,395	13.0%	10,065	1,912	19.0%	9,796	2,395	24.4%
HUD	1,600	221	13.8%	908	181	19.9%	297	221	74.4%
NASA							4262	32	0.8%
NRC	1,004		14.1%	686	128	18.7%	741	142	19.2%



Agency	Method 1: Total Surveys Completed/Total Surveys Sent			Method 2: FAC Surveys Completed/FAC Surveys Sent			Method 3: Total Surveys Completed/FY16 AHCP FAC Workforce Members		
	Survey Sent	Total Took Survey	Percentage Responded	FAC Certified	FAC Cert Took Survey	Percentage Responded	Total FY16 AHCP	Total Took Survey	Percentage Responded
NSF							245	26	10.6%
OPM	636	59	9.3%	252	34	13.5%	247	59	23.9%
PBGC	336	28	8.3%	217	25	11.5%			
SAC	4,281	557	13.0%	2,156	378	17.5%			
SBA	962	170	17.7%	396	122	30.8%	254	170	66.9%
SEC	663	130	19.6%	526	123	23.4%			
SSA	1,816	314	17.3%	996	241	24.2%	1,146	314	27.4%
Treas	4,394	679	15.5%	2,389	532	22.3%	2,188	679	31.0%
USAID	5,443	528	9.7%	4,166	429	10.3%	1,479	528	35.7%
USDA	15,726	2,559	16.3%	6,391	1,726	27.0%	6,085	2,559	42.1%
VA	32,203	4,530	14.1%	12,315	2,568	20.9%	11,118	4,530	40.7%
<b>Total</b>	<b>164,133</b>	<b>25,191</b>	<b>15.3%</b>	<b>79,150</b>	<b>17,834</b>	<b>22.5%</b>	<b>82,441</b>	<b>24,819</b>	<b>30.1%</b>

# Appendix C: FAC-C Competencies and Performance Outcomes

The following tables show the average competency proficiencies and time spent for FAC-C holders. The rating scales also are presented below.

*Table C-1: Proficiency Scale*

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

*Table C-2: Time Spent Scale*

0	1	2	3
<b>None.</b> This competency/skill is not relevant for my current position.	<b>Minimal.</b> I spend very little time on this competency/skill in my normal work activities.	<b>Moderate.</b> I spend a fair amount of time on this competency/skill in my normal work activities.	<b>Extensive.</b> I spend a large portion of my time on this competency/skill in my normal work activities.

Table C-3 shows the average competency proficiency and time spent for each FAC-C level, as well as for the overall FAC-C area.

*Table C-3: FAC-C Competency Proficiency and Time Spent by Level*

FAC-C Competency	In Progress		Level 1		Level 2		Level 3		FAC-C Average	
	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent
1. Determination of How Best to Satisfy Requirements for the Mission Area	2.34	1.60	2.84	1.71	3.53	1.88	4.13	1.93	3.58	1.84
2. Consider Socio-economic Requirements (CSE)	2.11	1.33	2.81	1.59	3.43	1.74	4.02	1.69	3.48	1.64
3. Promote Competition	2.31	1.50	2.89	1.70	3.61	1.94	4.16	1.89	3.62	1.82
4. Source Selection Planning	1.88	1.22	2.32	1.28	3.12	1.56	3.99	1.71	3.29	1.55
5. Solicitation of Offers	2.14	1.43	2.80	1.66	3.61	2.00	4.22	1.87	3.61	1.80
6. Responsibility Determination	2.05	1.31	2.75	1.54	3.59	1.84	4.14	1.67	3.55	1.64

FAC-C Competency	In Progress		Level 1		Level 2		Level 3		FAC-C Average	
	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent
7. Bid Evaluation	1.79	1.09	2.29	1.25	3.13	1.52	3.52	1.27	3.02	1.29
8. Proposal Evaluation (Contracting by Negotiation)	1.82	1.13	2.37	1.33	3.36	1.81	4.18	1.90	3.43	1.69
9. Source Selection	1.86	1.15	2.38	1.31	3.25	1.64	4.04	1.72	3.35	1.56
10. Contract Award	2.37	1.57	2.94	1.76	3.73	2.07	4.30	1.96	3.73	1.90
11. Process Protests	0.85	0.38	1.31	0.51	2.12	0.77	3.16	0.94	2.37	0.77
12. Justification of Other than Full and Open	1.97	1.18	2.54	1.35	3.36	1.60	4.02	1.54	3.40	1.47
13. Terms and Conditions	1.93	1.23	2.50	1.48	3.37	1.81	4.04	1.8	3.39	1.68
14. Preparation and Negotiation	1.61	0.97	2.08	1.11	3.16	1.57	3.99	1.67	3.22	1.47
15. Advanced Cost and/or Price Analysis	1.51	0.91	1.79	0.99	2.67	1.31	3.56	1.45	2.84	1.28
16. Initiation of Work	1.59	0.94	2.24	1.18	3.31	1.65	4.00	1.59	3.28	1.45
17. Contract Performance Management	1.83	1.12	2.47	1.44	3.46	1.91	4.11	1.81	3.43	1.68
18. Issue Changes and Modifications	2.34	1.48	2.89	1.63	3.78	2.03	4.34	1.9	3.74	1.83
19. Approve Payment Requests	1.67	0.92	2.23	1.14	2.98	1.34	3.70	1.31	3.07	1.24
20. Close-out Contracts	2.08	1.22	2.63	1.39	3.42	1.62	3.79	1.35	3.32	1.39
21. Addressing Small Business Concerns	1.61	0.95	2.32	1.31	2.92	1.40	3.47	1.35	2.95	1.31
22. Negotiate Forward Pricing Rates Agreements & Administer Cost Accounting Standards	0.71	0.36	0.91	0.37	1.24	0.42	1.84	0.42	1.43	0.40
23. Contract Termination	1.22	0.59	1.73	0.70	2.53	0.93	3.23	0.85	2.60	0.81
24. Procurement Analysis	1.34	0.78	1.59	0.85	2.29	1.05	3.36	1.44	2.61	1.19
25. E-Business and Automated Tools	1.49	0.95	1.94	1.14	2.59	1.44	3.26	1.56	2.70	1.39
26. Activity Program Coordinator for Purchase Card	1.03	0.56	1.30	0.60	1.27	0.42	1.70	0.42	1.47	0.47
27. Construction/ Architect & Engineering (A&E)	0.74	0.38	1.06	0.50	1.74	0.77	2.15	0.67	1.71	0.63
28. Contracting in a Contingent and/or	0.49	0.26	0.57	0.24	0.93	0.27	1.43	0.31	1.07	0.28

FAC-C Competency	In Progress		Level 1		Level 2		Level 3		FAC-C Average	
	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent
Combat Environment										
Responses	476		871		765		2,326		4,438	

Table C-4 displays the competency proficiency and time spent for each FAC-C competency, as well as predicted proficiency based on the linear regression, and the residual. Figure 13 in the FAC-C chapter was based on the below information.

*Table C-4: FAC-C Competency Proficiency vs Time Spent*

FAC-C Competency Proficiency	Time Spent	Proficiency	Predicted Proficiency	Residual
1. Determination of How Best to Satisfy Requirements for the Mission Area	1.84	3.58	3.76	-0.18
2. Consider Socio-economic Requirements (CSE)	1.64	3.48	3.44	0.04
3. Promote Competition	1.82	3.62	3.72	-0.10
4. Source Selection Planning	1.55	3.29	3.30	-0.01
5. Solicitation of Offers	1.80	3.61	3.69	-0.08
6. Responsibility Determination	1.64	3.55	3.43	0.12
7. Bid Evaluation	1.29	3.02	2.90	0.12
8. Proposal Evaluation (Contracting by Negotiation)	1.69	3.43	3.52	-0.08
9. Source Selection	1.56	3.35	3.32	0.02
10. Contract Award	1.90	3.73	3.84	-0.11
11. Process Protests	0.77	2.37	2.09	0.28
12. Justification of Other than Full and Open	1.47	3.40	3.19	0.21
13. Terms and Conditions	1.68	3.39	3.5	-0.11
14. Preparation and Negotiation	1.47	3.22	3.18	0.04
15. Advanced Cost and/or Price Analysis	1.28	2.84	2.88	-0.04
16. Initiation of Work	1.45	3.28	3.15	0.13
17. Contract Performance Management	1.68	3.43	3.50	-0.07
18. Issue Changes and Modifications	1.83	3.74	3.73	0.01
19. Approve Payment Requests	1.24	3.07	2.82	0.25
20. Close-out Contracts	1.39	3.32	3.05	0.26
21. Addressing Small Business Concerns	1.31	2.95	2.93	0.02
22. Negotiate Forward Pricing Rates Agreements & Administer Cost Accounting Standards	0.40	1.43	1.53	-0.10
23. Contract Termination	0.81	2.6	2.15	0.45
24. Procurement Analysis	1.19	2.61	2.74	-0.13
25. E-Business and Automated Tools	1.39	2.7	3.06	-0.36
26. Activity Program Coordinator for Purchase Card	0.47	1.47	1.63	-0.16
27. Construction/Architect & Engineering (A&E)	0.63	1.71	1.87	-0.16

FAC-C Competency Proficiency	Time Spent	Proficiency	Predicted Proficiency	Residual
28. Contracting in a Contingent and/or Combat Environment	0.28	1.07	1.34	-0.27
Responses	4,438			

Table C-5 presents the competency proficiency rating and time spent for each FAC-C performance outcome, as well as predicted proficiency based on the linear regression and the residual. Table 1 in the FAC-C chapter was based on this information.

*Table C-5: FAC-C Performance Outcome Proficiency vs Time Spent*

FAC-C Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1a. Provide proactive business advice on requirements documentation based on analysis of requirements and performance based approaches to find the best solution to satisfy mission requirements.	1.82	3.53	3.78	-0.25
1b. Conduct market research using relevant resources prior to solicitation to understand the industry environment and determine availability of sources of supply and/or services.	1.78	3.69	3.72	-0.03
1c. Perform acquisition planning by considering all available sources and methods of procurement to satisfy mission needs while appropriately allocating risk.	1.76	3.58	3.69	-0.11
2a. Consider socioeconomic requirements including small business, labor, environmental, foreign, and other socioeconomic requirements to provide maximum practicable contracting and subcontracting opportunities.	1.63	3.45	3.48	-0.03
3a. Conduct pre-solicitation industry conferences and analyze responses to draft solicitation terms and conditions to promote full and open competition.	1.36	3.14	3.05	0.09
3b. Identify and facilitate joint ventures and partnering on solicitations and subcontracting opportunities to increase competition and/or small business participation.	1.10	2.70	2.64	0.05
4a. Document a source selection plan that is consistent with public law, regulations, policy, and other guidelines.	1.53	3.26	3.32	-0.07
5a. Conduct pre-bid or preproposal conference to inform offerors of the requirements of the acquisition.	1.25	3.09	2.88	0.21
5b. Publicize proposed procurements to promote competition.	1.62	3.55	3.47	0.08
5c. Issue a written solicitation consistent with the requirements documents, acquisition plan and source selection plan, that includes the appropriate provisions and clauses tailored to the requirement.	1.76	3.59	3.69	-0.10
5d. Issue amendments or cancel solicitations when such actions are in the best interest of the Government and conform to law and regulations.	1.58	3.56	3.40	0.16

FAC-C Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
5e. Respond to pre-award inquiries by taking the appropriate action according to FAR/DFARS (and applicable supplements) to resolve questions.	1.57	3.49	3.39	0.10
6a. Determine contractor responsibility by assessing past performance and financial stability to ensure that the contractor will be able to satisfy Government requirements.	1.63	3.54	3.48	0.05
7a. Evaluate the sealed bids in a transparent manner to preserve the integrity of the competitive process.	0.91	2.54	2.33	0.22
7b. Perform price analysis to determine whether the lowest evaluated bid is reasonable and provides the best value to the Government.	1.35	3.09	3.04	0.05
8a. Evaluate proposals and quotes against evaluation criteria and request technical and pricing support, if needed, to identify offers that are acceptable or can be made acceptable.	1.73	3.47	3.64	-0.17
9a. Decide whether to hold discussions based on results of the evaluation.	1.42	3.22	3.14	0.08
9b. Establish the competitive range to determine which of the offers will not be considered for the award.	1.39	3.21	3.09	0.12
10a. Select the awardee who in the Government's estimation, provides the best value.	1.84	3.70	3.82	-0.12
10b. Award contract/issue task or delivery orders after ensuring fund availability and obtaining reviews and approvals.	1.88	3.76	3.88	-0.12
10c. Conducting pre/post award debriefings for all unsuccessful offerors when requested to ensure appropriate disclosure of information.	1.48	3.40	3.25	0.15
11a. Process protests to determine whether to withhold award or stop performance pending outcome of the protest.	0.75	2.33	2.08	0.25
12a. Justify the need to negotiate or award the contract without full and open competition or, in a multiple award scenario, without providing for fair opportunity based on business strategies and market research.	1.44	3.33	3.18	0.14
13a. Determine terms and conditions, including special contract requirements applicable to the acquisition that are appropriate for the acquisition to comply with laws and regulations (e.g. method of financing, Government property, intellectual property, OCI, specialty metals).	1.66	3.35	3.52	-0.18
14a. Prepare for negotiations/discussions/ awards by reviewing audit and technical reports, performing cost and/or price analysis (or reviewing price analysts' reports), and developing pre-negotiation position to include identify potential trade-offs.	1.45	3.19	3.20	0
14b. Negotiate terms and conditions (including price) based on the pre-negotiation objective and give and take with the offeror to establish a fair and reasonable price.	1.43	3.19	3.17	0.02

FAC-C Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
15a. Evaluate the reasonableness of the contractor's proposed cost/price for use in preparing for complex negotiations.	1.29	2.89	2.94	-0.04
15b. Develop positions on pricing related contract terms and conditions to aid in developing the Government's position.	1.22	2.83	2.84	0
15c. Support special cost, price, and finance efforts by researching, analyzing and providing recommended positions that are in the best interests of the Government.	1.17	2.74	2.74	0
15d. Evaluate award fee/incentive fee plans and arrangements for adherence to policy and guidance.	0.86	2.33	2.25	0.08
16a. Conduct post-award orientations to address customer concerns and contractor's responsibilities for performance of the contract.	1.39	3.24	3.10	0.14
16b. Plan for contract administration regarding delegating administrative functions; designating, training and managing CORs; and formally establishing all contract administration responsibilities.	1.49	3.30	3.26	0.04
17a. Administer contract by monitoring contracting officer representatives' feedback, contractor performance, and enforcing contractor compliance with contract requirements.	1.66	3.45	3.53	-0.08
17b. Ensure past performance evaluation is initiated to ensure documentation of performance including contracting officer input.	1.54	3.38	3.34	0.04
17c. Analyze, negotiate, and prepare claims file in order to issue final decisions.	1.11	2.85	2.66	0.19
17d. Resolve contract performance problems by gathering facts, determining remedies, and initiate remedial actions in order to find and provide a solution.	1.49	3.32	3.26	0.06
18a. Analyze the need for contract modifications and negotiate and issue contract modifications, as required.	1.82	3.72	3.79	-0.07
19a. Approve contractor request for payments to include final vouchers under cost reimbursement contracts, progress payments, performance-based payments, or commercial financing.	1.20	3.01	2.80	0.20
20a. Closeout contracts following proper procedure to ensure property disposition, final payments, and documents/clearances have been received.	1.38	3.31	3.09	0.22
21a. Assist small business concerns in understanding how to do business with the government, identifying contracting opportunities, and responding to small business inquiries regarding payment delays.	1.23	2.91	2.84	0.06
21b. Serve as a small business specialist and assist the Small Business Administration's assigned representative in conducting annual reviews of small business share, evaluation of contractors' subcontracting performance, and	0.73	1.96	2.05	-0.09

FAC-C Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
planning to maximize the use of small businesses.				
21c. As a small business specialist provide recommendations on acquisition documents as to whether a particular acquisition should be set aside for one of the Small Business programs.	0.81	2.06	2.18	-0.12
22a. Negotiate forward pricing rate agreements (FPRAs) for billing purposes and administer cost accounting standards to ensure contractor's compliance.	0.40	1.39	1.52	-0.13
23a. Terminate contracts using applicable FAR (and supplemental) requirements if it is in the best interest of the government (either termination for convenience or cause/default).	0.81	2.59	2.18	0.42
24a. Provide analysis to advise on procurement matters including contract documentation, legislation issues, and congressional inquiries impacting contracting matters.	1.11	2.54	2.66	-0.12
24b. Develop procurement policy and changes in procedures through analysis of major procurements for statutory and regulatory compliance and a macro-analysis of contracting matters.	0.84	2.13	2.22	-0.09
24c. Advise on high level legislation & policy matters to recommend and/or lead change in the procurement process	0.77	1.99	2.12	-0.13
24d. Perform oversight & audits to review contract files, compile lessons learned, & ensure consistent policy application.	1.02	2.39	2.51	-0.12
25a. Use e-business systems and automated tools to promote standardization, efficiency, and transparency.	1.39	2.68	3.10	-0.42
26a. Perform oversight and execution for the Purchase Card gram.	0.47	1.43	1.63	-0.19
27a. Develop acquisition strategies, issues notices/solicitations, conducts negotiations, selects sources, awards/administers contracts for construction & A&E in accordance w/requirements & procedures associated w/construction & A&E outlined in the FAR & supplemental policy & procedures (w/particular attention to FAR Part 36).	0.63	1.71	1.89	-0.18
28a. Apply contracting expertise during deployments, contingency operations, or responses to natural disasters.	0.29	1.09	1.34	-0.26
Responses	4,438			



# Appendix D: FAC-COR Competencies and Performance Outcomes

The following tables present the average competency proficiencies and time spent for FAC-COR. Table D-3 shows the competency proficiency and time spent for each FAC-COR level, as well as for the overall FAC-COR area.

*Table D-1: Proficiency Scale*

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

*Table D-2: Time Spent Scale*

0	1	2	3
<b>None.</b> This competency/skill is not relevant for my current position.	<b>Minimal.</b> I spend very little time on this competency/skill in my normal work activities.	<b>Moderate.</b> I spend a fair amount of time on this competency/skill in my normal work activities.	<b>Extensive.</b> I spend a large portion of my time on this competency/skill in my normal work activities.

*Table D-3: FAC-COR Competency Proficiency and Time Spent by Level*

FAC-COR Competency	In Progress		Level 1		Level 2		Level 3		FAC-COR Average	
	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent
1. Acquisition Planning	1.25	0.81	1.40	0.87	2.14	1.16	3.00	1.48	2.07	1.13
2. Market Research (Understanding the Marketplace)	1.38	0.89	1.58	0.94	2.29	1.23	3.05	1.49	2.21	1.19
3. Defining Government Requirements	1.46	0.92	1.73	1.05	2.60	1.44	3.43	1.77	2.49	1.39
4. Effective Communication	0.98	0.58	1.19	0.68	1.88	0.93	2.75	1.24	1.83	0.91
5. Proposal Evaluation	1.28	0.76	1.55	0.86	2.49	1.25	3.42	1.62	2.38	1.20
6. Contract Negotiation	0.97	0.51	1.05	0.53	1.73	0.79	2.59	1.10	1.68	0.77
7. Contract Administration Management	1.21	0.74	1.58	0.96	2.52	1.39	3.59	1.90	2.42	1.35

FAC-COR Competency	In Progress		Level 1		Level 2		Level 3		FAC-COR Average	
	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent
8. Effective Inspection & Acceptance	1.41	0.85	1.93	1.15	2.77	1.50	3.71	1.9	2.67	1.46
9. Contract Quality Assurance & Evaluation	1.34	0.79	1.81	1.07	2.67	1.43	3.62	1.82	2.57	1.38
10. Contract Closeout	1.07	0.58	1.34	0.72	2.18	1.06	3.13	1.38	2.09	1.02
11. Contract Reporting	1.18	0.71	1.68	1.00	2.66	1.43	3.63	1.83	2.53	1.37
12. Business Acumen and Communications Skill Sets	1.52	0.93	1.87	1.13	2.73	1.49	3.67	1.95	2.63	1.46
Responses	629		3,108		8,677		2,184		14,598	

Table D-4 displays the competency proficiency and time spent for each FAC-COR competency, the predicted proficiency based on the linear regression and the residual. Figure 36 in the FAC-COR chapter was based on this information.

*Table D-4: FAC-COR Competency Proficiency vs Time Spent*

FAC-COR Competency	Time Spent	Proficiency	Predicted Proficiency	Residual
1. Acquisition Planning	1.13	2.07	2.17	-0.10
2. Market Research (Understanding the Marketplace)	1.19	2.21	2.26	-0.05
3. Defining Government Requirements	1.39	2.49	2.54	-0.05
4. Effective Communication	0.91	1.83	1.86	-0.04
5. Proposal Evaluation	1.20	2.38	2.27	0.10
6. Contract Negotiation	0.77	1.68	1.67	0.01
7. Contract Administration Management	1.35	2.42	2.48	-0.06
8. Effective Inspection & Acceptance	1.46	2.67	2.64	0.04
9. Contract Quality Assurance & Evaluation	1.38	2.57	2.53	0.04
10. Contract Closeout	1.02	2.09	2.01	0.08
11. Contract Reporting	1.37	2.53	2.51	0.03
12. Business Acumen and Communications Skill Sets	1.46	2.63	2.64	0
Responses			14,598	

Table D-5 shows the proficiency and time spent for each FAC-COR performance outcome, as the predicted proficiency based on the linear regression and the residual. Table 2 in the FAC-COR chapter was based on this information.

*Table D-5: FAC-COR Performance Outcome Proficiency vs Time Spent*

FAC-COR Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1a. Documenting the Source—Assist in determining whether a written source selection plan is necessary, and if so, properly documenting the source selection planning or acquisition strategy.	0.86	1.74	1.77	-0.03
1b. Methods of Payment—Assist in the selection of the most appropriate method of payment that will best minimize the Government's overhead.	0.74	1.55	1.56	-0.01
1c. Contract Financing—Assist in determining whether to provide for Government financing, and, where necessary, the method of financing to use.	0.56	1.19	1.27	-0.09
1d. Unpriced Contracts—Assist in the preparation of unpriced orders and contracts.	0.42	0.91	1.05	-0.13
1e. Recurring Requirements—Assist in determining whether and how to provide for recurring requirements.	0.83	1.61	1.72	-0.12
1f. Contract Type—Assist in determining appropriate contract type(s).	0.88	1.77	1.80	-0.03
1g. Compliance to FAR Guidelines—Assist the CO with compliance of applicable FAR guidelines when acquiring products and services.	0.94	1.79	1.89	-0.10
1h. Determining Need for EVM—Mitigate potential problems with cost, schedule, and technical risks.	0.72	1.44	1.53	-0.09
1i. 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.	0.85	1.67	1.76	-0.08
1j. Strategic Planning—Advise customers on their acquisition-related roles and acquisition strategies needed to assure that supplies and services are available to meet mission requirements.	0.92	1.74	1.86	-0.12
2a. Conduct, collect, and apply market based research—Ability to understand the market place/requirement to identify 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.	1.14	2.17	2.23	-0.06
2b. Gather all information Related to the Potential Sources of an Acquisition as well as for Commercial Items—Understand the terms and conditions under which the sources sell the goods and/or services involved.	1.07	2.06	2.11	-0.05

FAC-COR Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
2c. Industry Trends—Understand the industry environment and determine availability of sources of supply and/or services.	0.99	1.97	1.99	-0.02
2d. Warranties—Support the Contracting officer in determining whether a warranty is appropriate for a specific acquisition including nature and use of the supplies or services; the cost of applying a warranty and any issues with administration and enforcement.	0.67	1.45	1.46	-0.01
2e. Conflict of Interest—Identifying potential conflicts of interest.	0.98	2.10	1.96	0.14
2f. Technology—Understanding available sources of information (e.g., internet, spreadsheets) to efficiently conduct sufficient market research.	1.16	2.31	2.25	0.05
3a. Writing Statements of Work—Create statements of work, SOOs and other related documents.	1.45	2.63	2.73	-0.10
3b. 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.	1.20	2.26	2.33	-0.07
3c. Assisting in the Development of Acquisition Strategy—Assist the CO with the development of an appropriate acquisition strategy.	0.96	1.92	1.93	-0.01
3d. Pricing Information from Offerors—If requested by the CO, assist in determining what pricing information to require from offerors.	0.99	2.00	1.99	0.01
4a. Publicizing Proposed Acquisitions—Recommend to CO additional methods of publicizing the proposed procurement when appropriate.	0.60	1.38	1.34	0.04
4b. Subcontracting Requirements—Recommend appropriate requirements be put into solicitations for subcontracting or make-or-buy situations.	0.62	1.41	1.38	0.03
4c. 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.	0.85	1.72	1.75	-0.02
4d. 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.	0.78	1.66	1.63	0.03
4e. 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.	0.69	1.50	1.48	0.02
5a. Evaluating Non-Price Factors—Apply non-price factors in evaluating quotations, proposals, and past performance.	1.13	2.29	2.22	0.07

FAC-COR Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
5b. Evaluation Documentation—Ability to clearly document reasoning behind proposed evaluation.	1.17	2.36	2.28	0.09
5c. Ethics—Ability to demonstrate ethical conduct during the procurement process.	1.30	2.73	2.49	0.24
6a. Conducting Discussions/Negotiations—Assist CO in preparing for a negotiation session.	0.72	1.63	1.54	0.09
6b. Determining Capability—Assist in determining and documenting the capability of a firm to effectively perform the terms and conditions of the contract.	0.91	1.94	1.86	0.09
7a. Contract Administration Planning and Orientations—Define the COR 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.	1.26	2.41	2.43	-0.02
7b. Requests for Contract Modification and Adjustment—Provide appropriate documentation in support of contract modifications or adjustments to the CO.	1.24	2.43	2.39	0.04
7c. Work Order Management—Submit work package to request work under the contract.	1.08	2.15	2.13	0.02
7d. Financial Analysis and Reporting—Track the indexes as well as the appropriate burn rate for a given contract.	1.03	2.03	2.05	-0.02
8a. Inspect and Accept Deliveries and Services—Understand the process for inspecting deliverables and monitoring services for conformance with contract/order/agreement terms and conditions, and accept or reject them.	1.47	2.72	2.77	-0.05
8b. Compliance and Completion—Ensure compliance and completion by the Contractor of all required operations, including the preparation of any forms (ex. Material Inspection and Receiving Reports) or equivalent which shall be authenticated and certified by the COR that the services/supplies have been received are acceptable.	1.46	2.70	2.76	-0.06
8c. Inspection Reports—Process inspection report as supporting documentation for payment and maintain documentation of all inspections performed including disposition of the results. Ensure that invoice properly aligns with delivered services and products received and accepted.	1.36	2.56	2.58	-0.03
9a. Quality Assurance—Ensures consistency of appropriate quality requirements as they relate to the contract and validates/verifies adherence to specified requirements through test and measurement activities.	1.37	2.57	2.60	-0.03
9b. Quality Control—Monitors the products or services throughout their life cycle.	1.41	2.63	2.66	-0.04

FAC-COR Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
9c. Knowledge Management—Influences knowledge management practices (e.g. continuous process-improvement).	1.26	2.42	2.43	-0.01
10a. Contract Closeout—Given a contract type, identify the FAR regulations, agency supplemental requirements, as appropriate and steps associated with closeout. Distinguish between physical contract completion and administrative contract closeout.	0.91	1.94	1.85	0.09
10b. Contractor's Performance Evaluation—Recommend the appropriate rating criteria for the Contractor's performance evaluation within the agency past performance system.	1.09	2.29	2.15	0.14
10c. Contractor Final Payments—Identify conditions for final payment to the Contractor.	0.97	2.10	1.95	0.15
10d. Program File—Identify the appropriate program file completion requirements.	0.88	1.89	1.80	0.08
10e. Administrative Close-out of the Contract—Identify the conditions under which a COR's duties and responsibilities end for a specific contract.	0.94	2.02	1.90	0.12
11a. COR Files—Develop the COR file in accordance with Agency requirements.	1.32	2.48	2.52	-0.03
11b. Monitor Contractor's Performance—Ability to monitor performance in accordance with the contract terms and conditions.	1.51	2.77	2.83	-0.06
11c. Invoices—Accept or reject an invoice for a given task or deliverable in accordance with the Prompt Payment Act.	1.44	2.78	2.72	0.06
12a. Program Communications—Manage effective business partnership with the Contracting Officers, agency and other business advisers, and program participants.	1.46	2.68	2.75	-0.07
12b. Program Objectives and Priorities—Participates and/or contributes to the formulation of objectives and priorities, and where appropriate, implement plans consistent with the long-term interests of the organization in a global environment.	1.31	2.49	2.51	-0.02
12c. Stakeholder Relationships—Manages stakeholder relationships that generates buy-in to the business and technical management approach to the program.	1.29	2.44	2.47	-0.02
12d. Risk Management—Identify, mitigate, and advise against potential risks.	1.29	2.49	2.48	0.01
12e. Project Management Principles—Monitors schedule and delivery processes.	1.43	2.69	2.71	-0.02
Responses	14,598			

# Appendix E: FAC-P/PM Competencies and Performance Outcomes

The following tables show the average competency proficiencies and time spent for FAC-P/PM. Table E-3 presents the competency proficiency and time spent for each FAC-P/PM level, as well as for the overall FAC-P/PM area.

*Table E-1: Proficiency Scale*

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

*Table E-2: Time Spent Scale*

0	1	2	3
<b>None.</b> This competency/skill is not relevant for my current position.	<b>Minimal.</b> I spend very little time on this competency/skill in my normal work activities.	<b>Moderate.</b> I spend a fair amount of time on this competency/skill in my normal work activities.	<b>Extensive.</b> I spend a large portion of my time on this competency/skill in my normal work activities.

*Table E-3: FAC-P/PM Scores by Level*

FAC-P/PM Competency	In Progress		Level 1		Level 2		Level 3		FAC-P/PM Average	
	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent	Proficiency	Time Spent
1. Requirements Development and Management Process	2.52	1.47	2.92	1.61	3.47	1.80	4.07	1.87	3.26	1.70
2. Systems Engineering	1.97	1.10	2.30	1.25	2.71	1.38	3.08	1.38	2.52	1.25
3. Test & Evaluation	2.07	1.09	2.37	1.19	2.54	1.21	3.11	1.30	2.54	1.20
4. Life Cycle Logistics	2.03	1.09	2.21	1.17	2.61	1.28	3.25	1.37	2.56	1.23
5. Contracting	2.40	1.35	2.51	1.38	2.83	1.46	3.47	1.62	2.84	1.50
6. Business, Cost, & Financial Management	2.34	1.24	2.41	1.29	2.82	1.47	3.57	1.65	2.84	1.44
7. Leadership	3.05	1.82	3.22	1.94	3.60	2.03	4.27	2.35	3.57	2.04
Responses	768		293		446		711		2,218	

Table E-4 shows the competency proficiency and time spent for each FAC-P/PM competency, as well as predicted proficiency based on the linear regression and the residual. Figure 46 in the FAC-P/PM chapter was based on this information.

*Table E-4: FAC-P/PM Competency Proficiency vs Time Spent*

FAC-P/PM Competency	Time Spent	Proficiency	Predicted Proficiency	Residual
1. Requirements Development and Management Process	1.70	3.26	3.17	0.10
2. Systems Engineering	1.25	2.52	2.58	-0.06
3. Test & Evaluation	1.20	2.54	2.51	0.03
4. Life Cycle Logistics	1.23	2.56	2.55	0.02
5. Contracting	1.50	2.84	2.90	-0.06
6. Business, Cost, & Financial Management	1.44	2.84	2.83	0.01
7. Leadership	2.04	3.57	3.61	-0.04
Responses	2,218			

Table E-5 through Table E-7 show the proficiency and time spent for each FAC-P/PM performance outcome, the predicted proficiency, and the residual. Since FAC-P/PM has different performance outcomes for each level, three tables are presented. Table 3 in the FAC-P/PM section was based on this information.

*Table E-5: FAC-P/PM Performance Outcome Proficiency vs Time Spent  
(In Progress and Level 1)*

In Progress and Level 1				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1a. Recognize the applicable laws, statutes and regulations that control the Federal acquisition process.	1.27	2.34	2.43	-0.09
1b. Identify the major organizations that control and execute the Federal acquisition process.	1.15	2.30	2.26	0.04
1c. Comprehend the interrelationship of the applicable governance, budgeting and requirements development processes which embody all Federal acquisitions.	1.24	2.33	2.39	-0.06
1d. Describe the requirements development process and the criticality of meeting user/mission requirements.	1.46	2.71	2.69	0.01
1e. Comprehend a general life-cycle model an agency may use to select concepts to meet user/mission requirements.	1.31	2.52	2.48	0.04
1f. Recognize the role of the Acquisition Strategy and other key planning documentation.	1.26	2.42	2.42	0.01
1g. Define the utility, 1 tenets and guidelines for preparing an Integrated Master Plan and Integrated Master Schedule.	1.06	2.11	2.14	-0.03
1h. Recall the concept of Total Ownership Cost (TOC) and other cost descriptions that define cost accounting of the program.	0.97	2.05	2.01	0.04



In Progress and Level 1				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1i. Recognize the program manager's responsibility for managing program cost, schedule and performance to achieve program success.	1.56	2.87	2.84	0.03
1j. Generalize the risk/opportunity management process.	1.39	2.55	2.59	-0.04
1k. Compare and contrast the major planning attributes of traditional, information technology, services and facilities construction programs.	1.07	2.13	2.15	-0.03
1l. Comprehend the concept and utility of working groups and project oriented team.	1.57	2.82	2.84	-0.02
1m. Identify the functions of membership in a working group or project oriented team.	1.54	2.83	2.80	0.03
2a. Recognize the importance of integrating the Systems Engineering (SE) life cycle and its technical management and review process with the acquisition life cycle.	1.07	2.10	2.15	-0.05
2b. Identify and relate the utility of key technical management processes and tools used in the SE process, including: configuration management, technical performance measures, and technical design reviews.	1.07	2.06	2.14	-0.08
2c. Recognize the roles and responsibilities of the Government and the contractor in the SE process.	1.11	2.22	2.21	0.01
2d. Recognize the utility of using work breakdown structures (WBS) as a technical management tool across all functional disciplines in the acquisition process.	1.16	2.32	2.28	0.04
2e. Discuss the concept of systems management and the role of human factor engineering in system engineering.	0.97	1.96	2.01	-0.05
2f. Define the key aspects of a plan for technical assessment that measures technical progress and assist in the development of a technical assessment plan.	1.00	1.97	2.04	-0.07
2g. Define the key aspects of risk management in the context of systems engineering and participate in development of a risk/opportunity management plan.	1.07	2.08	2.15	-0.06
2h. Describe the content for a technical data management plan.	0.92	1.82	1.94	-0.11
2i. Summarize the process for monitoring and selecting a balanced systems design solution.	0.90	1.79	1.91	-0.12
2j. Comprehend the need for design considerations accounting for: environmental, safety and occupational health (ESOH); human factors; and security factors.	1.02	2.04	2.07	-0.03
3a. Recognize the importance of test and evaluation to acquisition decisions.	1.09	2.31	2.17	0.14
3b. Explain efficient and cost effective methods for planning, monitoring, conducting, and evaluating tests of developmental, commercial or modified systems.	1.00	2.07	2.04	0.03
3c. Identify the role that T&E plays in the systems engineering process.	0.97	2.04	2.01	0.03
3d. Define and determine the need for a comprehensive test and evaluation approach, including the use of modeling and simulation.	0.97	2.04	2.01	0.03

In Progress and Level 1				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
3e. Explain the value of a comprehensive and documented test and evaluation strategy and how this strategy evolves into test and evaluation plans, such as a Test and Evaluation Master Plan (TEMP).	0.91	1.98	1.93	0.05
3f. Discuss various Federal agency processes for conducting test and evaluation, including the need to conduct user testing or operational test and evaluation (OT&E).	0.91	1.89	1.93	-0.04
4a. Express understanding of the concept of integrated product support, the product support elements and purpose of a product support plan.	1.04	2.04	2.10	-0.07
4b. Comprehend performance-based logistic efforts that optimize total life cycle costs while maintaining system readiness.	0.99	1.97	2.04	-0.07
4c. Recognize alternative logistics support practices, including supply chain management, best public sector and commercial practices and technology solutions, and their utility and appropriateness according to the type and scope of the acquisition program.	0.96	1.94	2.00	-0.06
4d. Comprehend the concepts of availability, supportability, and reliability/maintainability while minimizing cost, the logistic footprint, and interoperability.	1.06	2.10	2.13	-0.03
4e. Define interoperability as a key product support factor, along with examples of interoperability application.	0.98	1.97	2.02	-0.05
4f. Assist in implementation of alternative logistics support practices.	0.89	1.83	1.90	-0.07
4g. Recognize the importance of planning for the deployment of a new system or project.	1.24	2.37	2.39	-0.02
5a. Contrast the roles and responsibilities between the contracting officer and the program manager.	1.32	2.66	2.50	0.16
5b. Recognize the need for a comprehensive program specification and requirements statement that fully and correctly defines the program.	1.36	2.63	2.55	0.08
5c. Describe pre-award actions and the associated contracting methods required by the Federal Acquisition Regulation (FAR). Recognize the need for the Program Manager to participate in pre-award actions required by acquisition planning (FAR Part 7.1).	1.20	2.34	2.32	0.02
5d. Recall the formal source selection process, including acquisition planning and pre-solicitation processes; market research; the request for proposal (RFP); evaluation of proposals; and contract award.	1.23	2.45	2.38	0.07
5e. Define the process for developing a comprehensive program specification, Statement Of Work (SOW), and/or Statement of Objective (SOO) that fully and correctly defines the project, addressing roles and missions of the government and contractor.	1.43	2.68	2.65	0.03
5f. Recognize the benefits of performance-based acquisition.	1.20	2.49	2.33	0.16
5g. Recognize the need to formulate a source selection plan that allows for best value.	1.17	2.44	2.28	0.15

In Progress and Level 1				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
5h. Identify key activities in contract administration, including contract modifications and terminations.	1.20	2.46	2.33	0.13
5i. Illustrate the role of the COR during all phases of the contracting process.	1.37	2.69	2.57	0.12
6a. Comprehend the Congressional appropriation process, the various appropriation categories, and the rules for using the funds from each appropriation.	1.07	2.23	2.16	0.07
6b. Generalize common uses of cost estimating, cost analysis, financial planning, formulating financial projects and budgets, budget analysis/execution, benefit-cost analysis, EVM, and other methods of performance measurement.	1.21	2.35	2.34	0.01
6c. Recognize cost estimating processes, methods and techniques.	1.20	2.36	2.33	0.03
6d. Define the Integrated Baseline Review (IBR) process or similar process that reviews program cost and schedule performance.	0.94	1.96	1.96	0
6e. Recognize the 1 concepts of Earned Value Management (EVM), including cost and schedule program status indicators, and how EVM relates to managing program risk.	0.96	2.09	2.00	0.09
6f. Comprehend how to allocate funds within appropriation categories and how to use the funds from each appropriation.	1.06	2.19	2.14	0.05
6g. Generalize the agency's policy and for financial planning, programming, budget development, budget execution and OMB A-11 application.	0.96	1.96	1.99	-0.03
6h. Recognize common formats and approach to building and analyzing a viable and relevant Business Case containing both quantitative and qualitative decision criteria.	0.99	2.03	2.04	-0.01
6i. Recall the common types of software instruments available for performance measurement of programs.	0.86	1.80	1.86	-0.06
6j. Recognize the statutory requirements for measuring performance of acquisition programs.	0.91	1.88	1.93	-0.05
6k. Recognize the benefits of using balanced and goal oriented performance measures in managing a program.	1.07	2.17	2.16	0.01
7a. Recognize the basic role of the Program Manager; the qualities of leadership and management as they relate to the Program Manager; and the common leadership challenges faced by Program Managers.	1.75	3.05	3.09	-0.04
7b. Recall accepted methods how to lead/manage a project team to satisfactory achievement of project goals.	1.76	3.05	3.11	-0.06
7c. Recall how to identify problems, determining accuracy and relevance of information and using sound judgment when offering solutions.	1.82	3.11	3.19	-0.08
7d. Relate the various techniques to adapt behavior or work methods in response to new information or changing conditions.	1.74	3.00	3.09	-0.09
7e. Describe methods to hold self and others accountable for measurable, high-quality, timely, and cost-effective results.	1.76	3.03	3.11	-0.08

In Progress and Level 1				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
7f. Comprehend the tenets of effectively communicating information in a succinct and organized manner, orally and in writing.	1.94	3.24	3.36	-0.13
7g. Recognize the value of a customer-oriented approach when assessing needs, resolving conflict, and satisfying expectations.	1.89	3.23	3.30	-0.07
7h. Recognize how Continuous Process Improvement (CPI) is used to enhance an organization's performance and identify key CPI methodologies.	1.50	2.76	2.75	0.02
7i. Define the principles of ethics and values inherent to the systems acquisition process and identify the core ethical values associated with acquisition decision making.	1.61	2.98	2.90	0.08
7j. Recognize the roles organizational culture and leadership play in establishing an ethical work environment.	1.71	3.15	3.05	0.10
7k. Recognize how interpersonal and organizational conflict impacts the program management office and select relevant conflict management techniques and methods to address that conflict.	1.69	3.07	3.01	0.06
Responses	1,061			

*Table E-6: FAC-P/PM Performance Outcome Proficiency vs Time Spent (Level 2)*

Level 2				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1a. Illustrate the criticality of user/mission requirements in performing project management functions.	1.67	3.43	3.27	0.17
1b. Apply government and agency acquisition policies to meet user/mission requirements.	1.64	3.20	3.22	-0.01
1c. Relate how acquisition programs exist in size and scope along a continuum of increasing complexity, mission criticality, cost and level of control and oversight.	1.39	3.03	2.89	0.14
1d. Discover the scope and purpose of systems acquisition management as an integration of the primary functions of FAC-P/PM Technical Competencies.	1.61	3.16	3.18	-0.02
1e. Formulate an Acquisition Strategy that incorporates risk mitigation strategies.	1.42	3.06	2.93	0.13
1f. Clarify alternative concepts that efficiently meet mission capability gaps.	1.47	3.12	2.99	0.13
1g. Determine requirements and assist in the planning for technology and business management throughout the acquisition process.	1.52	3.07	3.06	0.01
1h. Prepare an Integrated Master Plan that reflects the tenets of total life cycle system management.	1.24	2.79	2.68	0.11
1i. Assist in the development of an estimate of Total Ownership Cost (TOC) in agency format.	1.06	2.40	2.44	-0.05
1j. Formulate the key features of a risk/opportunity management process.	2.03	2.97	3.74	-0.77

Level 2				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1k. Apply effective oral and written capabilities to communicate project needs and expectations.	1.40	3.73	2.90	0.83
1l. Form and lead working groups as Integrated Project/Product Teams.	1.83	3.55	3.47	0.08
2a. Apply quantitative and qualitative analytical techniques for decision making.	1.44	2.93	2.96	-0.02
2b. Justify and explain the benefits of using balanced and goal oriented performance measures in managing a system design effort.	1.25	2.68	2.69	-0.01
2c. Develop and demonstrate effective technical performance measures to monitor system performance.	1.27	2.75	2.72	0.03
2d. Develop and apply a viable risk/opportunity management plan in the context of Systems Engineering (SE).	1.10	2.44	2.50	-0.06
2e. Administer and assess technical assessment plans and decision analysis methods.	1.17	2.58	2.59	-0.01
2f. Apply key technical management processes and tools used in the SE process, including: configuration management, technical performance measures, and technical design reviews.	1.27	2.73	2.72	0.00
2g. Structure an effective requirements development and management process that traces engineering and technical specification requirements back to the user's system requirements.	1.27	2.73	2.72	0.00
2h. Develop and apply a process for monitoring and selecting a balanced systems design solution.	1.10	2.50	2.50	0.00
2i. Apply best practice processes for monitoring and selecting a systems design accounting for: environmental, safety and occupational health (ESOH); human factors; and security requirements.	1.10	2.42	2.50	-0.08
2j. Comprehend the systems life-cycle management concepts used for information technology (IT) systems.	1.17	2.60	2.59	0.01
2k. Illustrate the main causes of software program problems.	0.94	2.11	2.28	-0.17
2l. Comprehend the major provisions of the Information Technology Management Reform (Clinger-Cohen) Act.	0.93	2.05	2.26	-0.21
2m. Compare and contrast the common software acquisition strategies and software development paradigms.	0.87	1.97	2.19	-0.22
2n. Recognize the best practices used in the Federal Government to improve efficiency and effectiveness of software acquisitions.	0.99	2.15	2.35	-0.20
3b. Comprehend the differences in type and scope of test and evaluation required for different program types, including commercial off-the-shelf, non-developmental, and developmental programs.	1.14	2.53	2.56	-0.03
3a. Select and apply efficient and cost effective methods for planning, monitoring, conducting, and evaluating tests of developmental, non-developmental, commercial or modified systems.	1.15	2.51	2.56	-0.06
3c. Formulate the test and evaluation strategy for a program, accounting for the differences in hardware centric and information technology centric systems,	1.04	2.34	2.42	-0.08

Level 2				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
that demonstrates system performance requirements and progressively reduces program risk.				
4a. Analyze the product support elements and apply the concept of integrated product support in the formulation of a product support plan.	1.13	2.46	2.54	-0.08
4b. Administer performance-based logistic efforts that optimize total system life cycle cost while maintaining system readiness.	1.13	2.45	2.54	-0.09
4c. Analyze systems design for availability, supportability, and reliability and link this analysis to how the design balances the need to minimize cost, reduce the logistic footprint, provide operational readiness and account for interoperability requirements.	1.21	2.53	2.65	-0.12
4d. Propose appropriate alternative logistics support strategies and practices.	1.14	2.47	2.55	-0.08
4e. Track and act upon logistic analysis results early in the system development process so that balanced adjustments in the system design can be enacted which reduce the required support resources and overall life cycle costs.	1.11	2.40	2.51	-0.11
5a. Examine the leadership and management processes associated with acquisition planning.	1.23	2.69	2.67	0.01
5b. Interpret the differences in business processes between industry and the Federal government as they relate to contracting.	1.15	2.62	2.57	0.05
5c. Correlate the relationship between the Acquisition Strategy and the Acquisition Plan.	1.21	2.68	2.65	0.03
5d. Formulate an Acquisition Strategy which includes a comprehensive contracting approach that incorporates risk mitigation strategies.	1.24	2.67	2.68	-0.01
5e. Illustrate the basis for building and maintaining effective contract incentive relationships.	1.07	2.46	2.45	0.01
5f. Differentiate the key features of pre-award actions, contracting methods, and policy required by FAR.	1.17	2.56	2.59	-0.03
5g. Conduct market research, including considerations for using non-developmental and commercial items, and incorporating socioeconomic considerations.	1.33	2.85	2.80	0.05
5h. Account for the factors that determine how commercial-off-the shelf (COTS) products may affect a program during acquisition planning.	1.17	2.63	2.59	0.04
5i. Formulate the key features of a comprehensive program/project specification and SOW.	1.57	3.16	3.13	0.03
5j. Clarify source selection criteria including risk analysis methods, FAR Part 15/15.3.	1.15	2.58	2.56	0.02
5k. Apply and track contract administrative actions in collaboration with the program COR.	1.44	2.89	2.95	-0.07
5l. Administer a negotiated baseline of performance with operational users, and the corresponding commercial and/or organic support providers.	1.16	2.58	2.58	0.00
5m. Assist the contracting officer in the negotiations with industry for the required level of contract performance.	1.21	2.71	2.64	0.07

Level 2				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
5n. Demonstrate and apply the knowledge and skills required to perform the responsibilities of a COR.	1.56	3.23	3.11	0.12
6a. Integrate the common forms of cost estimating and cost analysis into the formulation of financial programs and budgets, budget analysis and execution.	1.37	2.85	2.86	-0.01
6b. Apply the 1 concepts of EVM, including cost and schedule program status indicators, and illustrate how EVM relates to managing program risk.	1.09	2.62	2.48	0.14
6c. Formulate and use cost estimating processes, methods, techniques and analytical principles.	1.33	2.80	2.81	-0.01
6d. Employ techniques to adjust program strategies when EVM indicators indicate high risk or threaten a breach of a program threshold.	1.01	2.54	2.38	0.16
6e. Assist in the preparation for, and participate in an Integrated Baseline Review (IBR) or similar review for performance measurement.	1.08	2.54	2.47	0.07
6f. Track program compliance with applicable Federal and agency EVM policies and processes.	0.96	2.36	2.32	0.05
6g. Analyze and allocate funds within the appropriation categories and correctly commit and obligate funds from each appropriation.	1.15	2.61	2.57	0.04
6h. Apply and track the program according to applicable agency policy for financial planning, programming, budget development, budget execution, and OMB A-11 application.	1.13	2.52	2.54	-0.02
6i. Construct and present for evaluation a viable business case based on sound cost-benefit analysis, and containing both qualitative and quantitative decision criteria.	1.18	2.68	2.61	0.07
7a. Lead and facilitate an integrated project team (IPT) to satisfactory achievement of program/project goals.	1.91	3.60	3.58	0.02
7b. Apply an effective communications approach that builds networks and fosters professional alliances.	2.06	3.66	3.78	-0.12
7c. Resolve interpersonal conflicts, grievances and confrontations to minimize negative personal and organizational impact.	1.81	3.56	3.45	0.11
7d. Identify and effectively leverage the internal and external political environment that impacts the work of the organization.	1.71	3.35	3.31	0.03
7e. Construct effective and timely decisions, adjusting for time sensitive situations or when relevant information is limited.	1.93	3.61	3.60	0.00
7f. Demonstrate the ability to develop new insights, question conventional approaches; encourage new ideas and innovations; and design and implement new or cutting edge plans and processes.	1.88	3.57	3.54	0.03
7g. Foster the talent of others to perform by providing ongoing, effective feedback.	1.85	3.53	3.51	0.03
7h. Persuade others to accept recommendations, cooperate or change their behavior, work with others towards an agreement, and negotiate to find mutually acceptable solutions.	1.92	3.56	3.59	-0.03
7i. Determine the impact that stakeholder relations have on programmatic success.	1.91	3.58	3.58	0.00

Level 2				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
Responses			446	

*Table E-7: FAC-P/PM Performance Outcome Proficiency vs Time Spent (Level 3)*

Level 3				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
1a. Manage the analyses of user requirements to optimize system performance relative to cost and schedule.	1.73	3.91	3.72	0.18
1b. Facilitate the application of agency acquisition policies to meet user/mission requirements.	1.66	3.69	3.63	0.06
1c. Evaluate the preparation and implementation of an Acquisition Strategy with an ongoing risk/opportunity management process.	1.63	3.73	3.60	0.13
1d. Identify, interpret and implement agency financial policies and directives that are applicable to the program.	1.57	3.56	3.52	0.04
1e. Evaluate analysis of alternative concepts that efficiently meet mission capability gaps.	1.68	3.76	3.66	0.10
1f. Facilitate the development of the program acquisition approach, define program scope, and coordinate an Integrated Master Plan.	1.69	3.81	3.68	0.13
1g. Originate and manage an estimate of ownership cost ensuring consistency with OMB A-94 and PART analysis.	1.08	2.77	2.87	-0.10
1h. Construct, employ, and then modify based on changes in the acquisition environment, a risk/opportunity management process.	1.53	3.54	3.47	0.07
1i. Manage the integration of business and technology management strategies, accounting for cost, schedule and performance risks, that delivers best value and meets capability requirements.	1.79	3.80	3.81	0.00
1j. Design the charter and functions, select and assign membership, and lead integrated product/process teams and other program oriented working groups.	1.70	3.91	3.69	0.22
1k. Synthesize the efforts and output of functionally oriented product/process teams in preparation for and execution of milestone and stakeholder reviews of the program.	1.77	3.89	3.78	0.11
2a. Formulate, implement and evolve a rigorous Systems Engineering (SE) management program that tracks engineering and specification requirements back to user/mission requirements.	1.21	2.94	3.04	-0.10
2b. Evaluate technical management processes and tools used in the SE process, including configuration management, technical performance measures, and technical design reviews which ensure consistency of a product's attributes with its requirements and technical data information	1.29	3.05	3.15	-0.09
2c. Evaluate and evolve the process of developing technical solutions which link user requirements to	1.40	3.17	3.29	-0.12



Level 3				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
technical performance and lead to the selection of a balanced design solution.				
2e. Generate and appraise common decision analysis methods and tools.	1.23	2.96	3.07	-0.11
2d. Manage development and application of effective system performance measures that provide early indication the selected design solution will meet user requirements.	1.35	3.14	3.23	-0.09
2f. Assess and evolve products, plans and other documentation related to technical performance measurement, technical assessment, risk/opportunity management and technical data management.	1.39	3.19	3.29	-0.10
2g. Interpret and oversee program implementation of the provisions of the Information Technology Management Reform (Clinger-Cohen) Act.	1.14	2.70	2.95	-0.25
2h. Evaluate common SE management strategies for information technology programs.	1.11	2.68	2.91	-0.23
2i. Plan for the key processes employed in interface management, including the ability to trace system requirements through the software architecture.	1.10	2.68	2.90	-0.22
3a. Facilitate development of a comprehensive test and evaluation strategy, designed to reduce program risks as the program progresses through the acquisition life-cycle.	1.24	3.07	3.09	-0.02
3b. Justify and communicate to program stakeholders, efficient and cost effective methods for planning, monitoring, conducting, and evaluating tests of developmental, non-developmental, commercial or modified systems.	1.34	3.24	3.21	0.03
3c. Oversee a comprehensive test and evaluation program, adjusting to changes in program complexity and risk.	1.23	3.07	3.07	0.01
3d. Manage and critique a strategy for conducting user or operational testing that determines the operational effectiveness and suitability of a system under realistic operational conditions.	1.21	3.06	3.05	0.02
3e. Manage the programmatic and system impact and risk to program restructuring as a result of analysis and evaluation of developmental and operational test reports.	1.24	3.08	3.08	0.00
4a. Evaluate and implement appropriate, innovative alternative logistics support practices that evolve to optimize life cycle costs, maintain system readiness and reduce logistics footprint.	1.30	3.17	3.17	0.00
4b. Critique a product support strategy where interoperability is required and evolve the strategy to achieve a balance in system performance, system readiness and life-cycle cost.	1.28	3.12	3.14	-0.01
4c. Formulate and defend a performance-based logistics strategy that optimizes total system life cycle costs.	1.21	3.04	3.05	-0.01
4d. Synthesize logistic analysis results and risk mitigation issues early in the system development process and implement balanced adjustments in the system design to reduce the required support resources and overall life cycle costs.	1.23	3.08	3.07	0.01

Level 3				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
4e. Organize and track materiel management actions involving the coordination of production, inventory, location, and transportation of program items of materiel (and associated information and financial transactions) to achieve optimum readiness among organizations employing the system.	1.13	2.96	2.94	0.02
5a. Adapt pre-award actions required by FAR considering contract terms and conditions.	1.33	3.21	3.20	0.01
5b. Collaborate with the program contracting officer and orchestrate the source selection process commensurate with the complexity of the procurement.	1.55	3.58	3.49	0.09
5c. Assess the coordination actions for the preparation of a comprehensive program specification and the Statement of Objectives (SOO), or SOW, or Performance Based Statement of Work (PSPW).	1.68	3.80	3.67	0.13
5d. Manage the leadership and management processes associated with the integration of program planning and acquisition planning.	1.68	3.77	3.67	0.10
5e. Develop and defend the overall strategy for managing the coordination and development of the acquisition and contracting strategy, including origination of the exit criteria for each acquisition phase as they relate to contracting.	1.50	3.52	3.42	0.10
5f. Facilitate the contractual relationship with domestic and international buyers outside the agency which sponsors the program acquisition.	1.00	2.69	2.78	-0.08
5g. Construct and facilitate a negotiated baseline of performance between the operational users, and corresponding commercial and/or organic support providers.	1.25	3.13	3.10	0.03
5h. Evaluate compliance with the application of Federal and agency acquisition policies to meet user/mission requirements when engaged in the acquisition of services.	1.43	3.35	3.33	0.02
5i. Orchestrate the preparation, implementation and justification of a contracting approach within the Acquisition Strategy, along with an ongoing risk management process for that approach.	1.48	3.43	3.40	0.04
6a. Manage the application of Total Life Cycle Systems Management (TLCSM), or similar concept, which requires the program manager to base decisions on system-wide analyses and system performance and affordability, and manage the program risk of those decisions.	1.48	3.42	3.40	0.02
6b. Oversee and facilitate program application of the common cost estimation techniques, applications, and their underlying analytical principles.	1.48	3.41	3.39	0.02
6d. Forecast the need for and direct financial planning exercises, and understand the risks associated with the formulated financial plans from those exercise.	1.33	3.27	3.20	0.07
6c. Evaluate program application of EVM, the criticality of the IBR or similar review process, and	1.20	3.21	3.03	0.18

Level 3				
FAC-P/PM Performance Outcome	Time Spent	Proficiency	Predicted Proficiency	Residual
how to interpret the EVM indicators and resulting analysis.				
6e. Assess for merit a benefit-cost analysis, illustrating the strengths and weaknesses of associated analytical methods, and interpret the analysis results for a stakeholder review.	1.33	3.34	3.21	0.13
6g. Identify, apply and integrate agency financial policies and directives relevant to the program.	1.49	3.46	3.42	0.04
6f. Manage the proper use of funds from each appropriation as well as interpret appropriations law and the various appropriations categories.	1.52	3.56	3.46	0.10
6h. Evaluate relevance and make programmatic decisions based on analysis of business cases containing both qualitative and quantitative decision criteria.	1.57	3.63	3.52	0.11
7a. Identify, assess and resolve programmatic problems and use sound judgment to identify corrective courses of action.	2.27	4.27	4.44	-0.17
7c. Model well developed oral and written communications skills and foster their development in subordinates.	2.29	4.31	4.46	-0.16
7b. Demonstrate a high level of responsibility and accountability for effective use of program resources.	2.33	4.36	4.51	-0.15
7d. Facilitate an effective business partnership with the contracting officer, chief acquisition officer, senior-level agency advisors, other business advisers and program stakeholders.	2.23	4.26	4.38	-0.13
7e. Manage to a long-term organizational view that fosters a shared vision and acts as a catalyst for change.	2.12	4.17	4.24	-0.07
7f. Foster an inclusive workplace where diversity and individual difference are valued and leveraged to achieve the vision and mission of the organization.	2.16	4.26	4.29	-0.04
7g. Strategically position the organization to take advantage of new opportunities by developing or improving products or services.	1.98	4.06	4.05	0.01
7h. Evaluate and remain current on local, national and international policies and trends that affect the organization and shape stakeholders' views.	1.82	3.86	3.84	0.02
7i. Oversee the formulation of organizational objectives and priorities, and implement plans consistent with the long-term interests of the organization in a global environment.	1.83	3.86	3.85	0.00
7j. Manage effective and timely stakeholder relationships that generate buy-in to the business and technical management approach to the program.	2.20	4.22	4.34	-0.12
Responses	711			

## Appendix F: Retention Statements

The following tables show the average FAC holder responses to the retention statements. Table F-1 reiterates the scale used for retention statements.

*Table F-1: Satisfaction Scale*

1	2	3	4	5
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

Table F-2 displays the FAC holder ratings for FY18, FY16, and the difference. The ratings are listed in the order of greatest increase to greatest decline. Table 4 in the retention chapter was based on this information.

*Table F-2: Retention Statements by FAC Area*

Retention Statement	FY18	FY16	Difference
My sense of contribution to the agency's mission and goals.	3.86	3.77	0.09
My co-workers willingness to share knowledge and resources.	3.79	3.72	0.08
My access to training and development opportunities.	3.65	3.58	0.07
The technical competence of my co-workers.	3.65	3.59	0.07
The quality of training and development I have received.	3.66	3.59	0.07
The quality of work produced by my co-workers.	3.65	3.58	0.07
My ability to disclose a suspected violation of a law, rule or regulation without fear of reprisal.	3.51	3.45	0.06
Availability of the necessary people with the skills required to achieve my assigned acquisition-related tasks.	3.41	3.36	0.06
My opportunities to perform work that is personally meaningful.	3.72	3.66	0.06
The adequacy of communication received from senior leaders regarding agency goals, priorities and decisions.	3.13	3.08	0.05
My relationship with my supervisor.	4.04	3.99	0.05
The support from my supervisor.	3.99	3.94	0.05
Opportunity for a desirable career path.	3.37	3.33	0.04
My supervisor's encouragement to broaden my skills and capabilities.	3.84	3.8	0.04
Management's support to pursue professional development opportunities.	3.61	3.57	0.04
The adequacy of performance related feedback provided by my supervisor.	3.82	3.78	0.04
Availability of the necessary information and resources to achieve my assigned acquisition-related tasks.	3.50	3.46	0.04
Frequency of communication with my supervisor.	3.94	3.9	0.04
Quality of communication with my supervisor.	3.91	3.88	0.03
The policies and decisions set by senior leadership.	3.11	3.07	0.03
The amount of recognition from my supervisor.	3.76	3.74	0.03
My supervisor's technical competence.	3.96	3.94	0.03
My supervisor's ability to establish a productive work environment.	3.82	3.8	0.02
The fit between my skills and my job duties.	3.66	3.64	0.02
My salary relative to my contribution to the agency's mission.	3.43	3.42	0.01
Opportunities for telework. Work/life balance of my position.	3.77	3.76	0.01
Senior leadership's promotion of diversity.	3.40	3.39	0.01

Retention Statement	FY18	FY16	Difference
My supervisor's fairness towards his/her staff members.	3.89	3.88	0.01
The level of my workload.	3.31	3.3	0.01
My salary relative to what other employers in the Federal sector offer.	3.4	3.4	0
My salary compared to what employers in the private sector offer.	2.98	3	-0.01
Opportunities for flexible, part-time, or alternative work schedules.	3.87	3.9	-0.03

Table F-3 displays the FAC holder ratings for FY18, FY16, and the difference. The ratings are listed in the order of greatest increase to greatest decline. Table 5 in the retention chapter was based on this information.

*Table F-3: Change in Satisfaction between FY16 and FY18*

Retention Statement	FAC-C	FAC-COR	FAC-P/PM	All FAC
<b>Compensation and Awards</b>				
My salary relative to my contribution to the agency's mission.	3.50	3.42	3.45	3.43
My salary relative to what other employers in the Federal sector offer.	3.46	3.38	3.45	3.40
My salary compared to what employers in the private sector offer.	2.97	3.00	2.86	2.98
<b>Acquisition Job/Role</b>				
The fit between my skills and my job duties.	3.79	3.62	3.62	3.66
My sense of contribution to the agency's mission and goals.	3.93	3.84	3.85	3.86
My opportunities to perform work that is personally meaningful.	3.76	3.71	3.69	3.72
The level of my workload.	3.31	3.31	3.33	3.31
<b>Agency's Senior Leadership</b>				
The policies and decisions set by senior leadership.	3.12	3.11	3.11	3.11
The adequacy of communication received from senior leaders regarding agency goals, priorities and decisions.	3.17	3.12	3.12	3.13
My ability to disclose a suspected violation of a law, rule or regulation without fear of reprisal.	3.48	3.52	3.52	3.51
Senior leadership's promotion of diversity.	3.44	3.39	3.42	3.40
<b>Immediate Supervisor</b>				
My relationship with my supervisor.	4.04	4.04	4.01	4.04
The support from my supervisor.	3.99	3.99	3.96	3.99
My supervisor's ability to establish a productive work environment.	3.83	3.82	3.78	3.82
My supervisor's technical competence.	4.01	3.95	3.94	3.96
Quality of communication with my supervisor.	3.92	3.91	3.89	3.91
Frequency of communication with my supervisor.	3.95	3.94	3.89	3.94
My supervisor's fairness towards his/her staff members.	3.88	3.89	3.87	3.89
The adequacy of performance related feedback provided by my supervisor.	3.83	3.81	3.77	3.82
The amount of recognition from my supervisor.	3.76	3.77	3.73	3.76
My supervisor's encouragement to broaden my skills and capabilities.	3.84	3.84	3.83	3.84
<b>Acquisition-Related Work Environment</b>				
Availability of the necessary information and resources to achieve my assigned acquisition-related tasks.	3.62	3.48	3.5	3.50

Retention Statement	FAC-C	FAC-COR	FAC-P/PM	All FAC
Availability of the necessary people with the skills required to achieve my assigned acquisition-related tasks.	3.45	3.41	3.38	3.41
The technical competence of my co-workers.	3.63	3.66	3.64	3.65
The quality of work produced by my co-workers.	3.61	3.66	3.64	3.65
My co-workers willingness to share knowledge and resources.	3.84	3.78	3.76	3.79
<b>Professional Training and Development</b>				
Management's support to pursue professional development opportunities.	3.64	3.60	3.68	3.61
My access to training and development opportunities.	3.69	3.63	3.74	3.65
The quality of training and development I have received.	3.71	3.65	3.76	3.66
Opportunity for a desirable career path.	3.47	3.35	3.35	3.37
<b>Work-Life Balance</b>				
Opportunities for flexible, part-time, or alternative work schedules.	3.98	3.84	3.94	3.87
Opportunities for telework. Work/life balance of my position.	3.91	3.73	3.89	3.77