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Demographics of the Contracting Workforce within the Army Contracting Command

25 September 2009

by

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Abstract

This study focuses on the demographics of contracting personnel in the Army Contracting Command (ACC). Numerous acquisition studies and commissions have cited personnel management as one of the most critical factors contributing to the success or failure of buying organizations. Further, strategic human capital management and DOD Contract Management have been on the Government Accountability Office (GAO) High-Risk List for the last several years. Actions to understand the nature and dynamics of the acquisition workforce are important in the development and execution of an integrated, strategic, human capital management plan. This research focused primarily on identifying basic demographics for contracting personnel in the 1102 occupational series in ACC. The research consisted of two principal aspects. First, what is the baseline status of critical demographic factors of the ACC contracting workforce? Second, how does the ACC workforce compare with other similar contracting populations—such as other Services and DOD agencies, other Federal Government agencies, and even in the commercial or private sector? The key demographics upon which this study focused included: (1) education level; (2) contracting certification level; (3) gender; (4) age; (5) retirement eligibility; (6) rank (military) and grade level (civilians); (7) pay plan (civilians); (8) experience; (9) supervisory vs. non-supervisory personnel; and (10) contractor personnel. These demographics were examined at two different points in time in order to perform trend analysis.

Keywords: Demographics, contracting, acquisition, workforce, Army

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About the Authors

David Lamm, Professor Emeritus from the Graduate School of Business and Public Policy (GSBPP), served at NPS as both a military and civilian professor from 1978 through his retirement in January 2004, teaching a number of acquisition and contracting courses, as well as advising thesis and MBA project students. During his tenure, he served as the Academic Associate for the Acquisition & Contracting Management (815) MBA Curriculum, the Systems Acquisition Management (816) MBA Curriculum, the Master of Science in Contract Management (835) distance-learning degree, and the Master of Science in Program Management (836) distance-learning degree. He created the latter three programs. He also created the International Defense Acquisition Resources Management (IDARM) program for the civilian acquisition workforce throughout the country. Finally, in collaboration with the GSBPP Acquisition Chair, he established and served as (PI) for the Acquisition Research Program, including inauguration of an annual Acquisition Research Symposium. He also developed the Master of Science in Procurement & Contracting degree program at St. Mary's College in Moraga, CA, and served as a Professor in both the St. Mary's and The George Washington University's graduate programs.

He has researched and published numerous articles and wrote an acquisition text entitled *Contract Negotiation Cases: Government and Industry*, 1993. He served on the editorial board for the *National Contract Management Journal* and was a founding member of the editorial board for the *Acquisition Review Quarterly*, now known as the *Defense Acquisition Review Journal*. He served as the NPS member of the Defense Acquisition Research Element (DARE) from 1983-1990.

Prior to NPS, he served as the Supply Officer aboard the USS Virgo (AE-30) and the USS Hector (AR-7). He also had acquisition tours of duty at the Defense Logistics Agency in Contract Administration and the Naval Air Systems Command, where he was the Deputy Director of the Missile Procurement Division.

He holds a BA from the University of Minnesota and an MBA and DBA both from The George Washington University. He is Fellow of the National Contract Management Association and received that association's Charles A. Dana Distinguished Service Award and the Blanche Witte Award for Contracting Excellence. He created the NCMA's Certified Professional Contracts Manager (CPCM) Examination Board and served as its Director from 1975-1990. He is the 1988 NPS winner of the RADM John J. Schieffelin Award for Teaching Excellence.

Dr. Timothy Reed is a visiting Professor at the Naval Postgraduate School, where he teaches Master's courses in Acquisition Management and Corporate Entrepreneurship. He has also taught at the Air Force Institute of Technology (AFIT), where he created the Air Force Strategic Purchasing Graduate Degree Program and served as the director of the program for two years. In addition, he has taught at the University of Dayton, and American University (Washington, DC) and visiting seminars at American University in Cairo, and Instituto de Empresas in Madrid. Dr. Reed retired from Active Military Service in 2008 after 21 years in the Air Force. Dr. Reed held various assignments in contracting, including the F-22 (EWI), C-17 and Fighter Engine Systems Program Offices. He deployed as the director of Joint Contracting Command-North, Kirkuk, Iraq. He also served at the Pentagon as Deputy Chief, Procurement Transformation Division, Headquarters Air Force, where he was responsible for implementing strategic sourcing and commodity councils for the DoD and AF. In his final assignment as Commander, 325th Contracting Squadron, Tyndall AFB, FL, he was responsible for $500 million in annual purchases in support of F-15, F-22, and AWACS flight training. He earned a PhD in Strategic Management and Entrepreneurship from the University of Colorado and is a Certified Purchasing Manager with the Institute of Supply Management.

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Table of Contents

I. Introduction

This study focuses on the demographics of contracting personnel in the newly formed Army Contracting Command (ACC) headquartered at Ft Belvoir in Northern Virginia. The new executive director, Mr. Jeffrey Parsons, asked NPS to undertake a demographics study to understand the nature of his contracting workforce and how it compares to other similar contracting workforces. Numerous acquisition studies and commissions have cited personnel management as one of the most critical factors contributing to the success or failure of buying organizations. Further, strategic human capital management and DOD Contract Management have been on the Government Accountability Office (GAO) High-Risk List for the last several years. Actions to understand the nature and dynamics of the acquisition workforce are important in the development and execution of an integrated, strategic, human capital management plan.

The Army Contracting Command was officially established on 1 October 2008, with Mr. Jeffrey Parsons as the executive director. This new Command essentially combined all of the contracting elements of the Army Materiel Command (AMC) (which includes such major subordinate commands as the Tank-Automotive & Armaments Command, the Communications Electronics Command, and the Aviation & Missile Command) with the contracting group in the former Army Contracting Agency. This new Command started with approximately 4,100 civilians, (of whom approximately 3,500 are contracting personnel in the 1102 occupational career field), and 310 military officers and enlisted located around the globe. As of this report, there are approximately 5,250 military and civilian personnel in ACC with an intended growth to approximately 5,500 by 1 October 2011.

This research focused primarily on identifying basic demographics for contracting personnel in the 1102 occupational series in ACC. The research consisted of two principal aspects. First, what is the baseline status of critical demographic factors of the ACC contracting workforce? What does this workforce

look like? What are its current strengths and weaknesses, and what findings/conclusions can be drawn by analyzing these factors? Second, how does the ACC workforce compare with other similar contracting populations—such as other Services and DOD agencies, other Federal Government agencies, and even in the commercial or private sector? The research question was stated as follows: What are the critical demographics of contracting personnel in the Army Contracting Command (ACC), and how do they compare to other DOD/Federal Government and private-sector contracting personnel? Although the researchers originally envisioned the creation of a separate database for analysis and evaluation, the researchers have focused their efforts instead on examining existing ACC civilian and military databases and providing recommendations for enhancement. In addition, the researchers feel the emerging workforce resource tool—which includes an extensive database—within ACC's Acquisition Resource Center (ARC) is extremely promising.

The key demographics upon which this study focused included: (1) education level; (2) contracting certification level; (3) gender; (4) age; (5) retirement eligibility; (6) rank (military) and grade level (civilians); (7) pay plan (civilians); (8) experience; (9) supervisory vs. non-supervisory personnel; and (10) contractor personnel. These demographics were examined at two different points in time in order to perform some trend analysis.

The primary sources of demographic information cited were the ACC civilian and military databases. The responsibility for the civilian database resides with ACC Civilian Personnel and Human Capital Management, while the military database is the responsibility of ACC Military Human Resource Management (G1). Other sources of demographic data include the Defense Manpower Data Center (DMDC), the Defense Acquisition University (DAU), the Federal Acquisition Institute (FAI), the U.S. Air Force, and the Institute for Supply Management (ISM).

The researchers conducted a literature review regarding defense acquisition workforce studies, Federal Government workforce studies and reports, human capital research and reports, and demographic literature. Prominent among

organizations that have contributed to the open literature relevant to this study have been the RAND Corporation (which is a Federally Funded Research and Development Center (FFRDC) for DOD), the Government Accountability Office (GAO), The Conference Board, the Federal Acquisition Institute (FAI), and various university and government research groups. Most of the open literature regarding demographics focuses on population characteristics and how these might be used to project trends in geographic locations. Although very little of the literature was directly applicable to this study, the researchers were able to obtain useful principles and concepts regarding workforce attributes from these texts.

The researchers also attempted to obtain industry data from professional associations and directly from major defense corporations. Very little useful data were obtained from these sources; thus, a comparison to commercial counterparts to Government contracting personnel was not possible. The researchers believe, however, that some very general information regarding industry trends could eventually be obtained.

A recent trend by Government contracting offices has been the use of commercial-firm contracts to obtain personnel to assist in the performance of contracting specialist functions. The researchers sent a brief survey to various ACC participants asking for very general information relative to the use and nature of contractor employees performing contracting tasks. The results of this survey are provided in Section IV.

The Office of the Secretary of Defense (OSD) conducted a competency survey in 2008. Partial data for some of the ACC commands were released for this study; however, more complete data related to all ACC organizations would be more helpful.

This report provides a statement of findings and recommendations relevant to the ACC 1102 occupational series civilians and ACC military personnel that together constitute the majority of the ACC workforce. These findings/recommendations

include aspects of the ACC databases involved, as well as an explanation of what an analysis of the data reveals about the workforce.

This report is organized into the following sections: Introduction, Literature Review, Discussion Items, Findings, Recommendations, Bibliography, and Appendices.

II. Literature Review

Our review of the literature revealed a preponderance of organization-specific research—as opposed to the examination or development of a grand theory of demographics. As Kinter observes:

> Applied demography is not a theory-directed body of knowledge. It is driven by problems and has been so from the start. In fact, what we today call applied demography has been practiced for decades (even centuries) as scientists—or simply observers of the human condition—attempted to make some numerical assessment of the extent or likely growth of human populations. (Kintner, Merrick, Morrison & Voss, 1994, pp. 6-7)

The primary sources of literature regarding the contracting workforce are: (1) the Government Accountability Office (GAO), focusing principally on strategic human capital management and acquisition workforce issues; (2) the RAND Corporation, focusing principally on workforce planning; (3) the Federal Acquisition Institute (FAI), which, among others things, surveys the Federal contracting workforce, (4) the Office of Federal Procurement Policy (OFPP), concentrating on contracting certification and competencies; (5) Department of Defense (DOD) reports, directives and instructions regarding acquisition career management, and (6) The Conference Board, addressing issues of human capital metrics, efficiency and planning. Other university, institute and professional literature has rounded out the perspectives important to this effort.

1. Government Accountability Office

Over the past several years, GAO has addressed a variety of aspects of the Defense acquisition workforce. These aspects include strategic human capital planning, agency hiring and training practices, integration between civilian and military workforces, workforce trends, private-sector principles, workforce size and structure, and DOD workforce reform and improvement efforts.

In January 2001, GAO designated strategic human capital management as a Government-wide high-risk area in its High-Risk Series because “serious human

capital shortfalls are eroding the ability of many agencies, and threatening the ability of others, to economically, efficiently, and effectively perform their missions" (GAO, 2001, January, p. 72). The major problem is not federal employees but rather the "lack of a consistent strategic approach to marshaling, managing, and maintaining the human capital needed to maximize government performance and ensure its accountability" (GAO, 2002, March, p. 4). In a prelude to a human capital model, this report outlined four pervasive human capital challenges as follows: (1) leadership, continuity, and succession planning; (2) strategic human capital planning and organizational alignment; (3) acquiring and developing staffs whose size, skills, and deployment meet agency needs; and (4) creating results-oriented organizational cultures. These became the four cornerstones of GAO's model. It outlined three immediate steps to manage human capital as follows: (1) identify and make use of all appropriate administrative authorities, (2) pursue incremental legislative reforms to supply additional tools and flexibilities to hire, manage, retrain personnel, particularly in critical occupations; and (3) identify the kinds of needed comprehensive legislative reforms which place greater emphasis on skills, knowledge and performance in connection with employment and compensation decisions (GAO, 2008, March, p. 5). The report goes on to identify eight critical success factors associated with the four human capital cornerstones mentioned earlier (commitment to human capital management, role of the human capital function, integration and alignment, data-driven human capital decisions, targeted investments in people, human capital approaches tailored to meet organizational needs, empowerment and inclusiveness, and unit and individual performance linked to organizational goals).

In a March 2008 report on the Army's use of contractors to perform contract specialist functions, GAO identified various risks that should be considered, including: (1) loss of government control over and accountability for mission-related policy and program decisions when contractors provide services (such as contract specialist services) that closely support inherently governmental functions, (2) increased potential for conflicts of interest (both personal and organizational), (3) the

potential for improper use of personal services contracts, and (4) the cost of hiring contractors rather than government personnel (GAO, 2008, March). The report stated that the Army Contracting Agency's Contracting Center of Excellence (CCE) had relied on contractor personnel since 2003 and, although an all-government workforce is preferred, intended to continue this practice. In August 2007, contractor employees represented 42% of the agency's contract specialists (GAO, 2008, March, p. 3). The study found that (1) CCE faced chronic difficulties in recruiting and retaining contract specialists in the Washington, DC, area due to competition with other government agencies and contractors supplying contract specialists; (2) CCE had not considered what would be an appropriate and feasible balance of the number of contactor and government employees; (3) the line separating contractor from government employee is blurry; (4) although no DOD guidance existed that elaborated on the factors to be considered in determining whether a personal service contract currently exits or how to mitigate such risk, CCE required contractors to submit conflict-of-interest mitigation plans and their employees to sign non-disclosure statements regarding such proprietary information as technical proposal data and cost and pricing data; (5) CCE is paying more on average for contractor-provided contract specialists than they would for government contract specialists, and (6) the contract vehicles CCE uses are inappropriate because the services provided are out of scope.

2. RAND Corporation

In a report titled *The Defense Acquisition Workforce: An Analysis of Personnel Trends Relevant to Policy, 1993-2006,* the RAND Corporation addressed planning issues involving both the civilian and military acquisition workforce. This study was undertaken at the request of the Director, Acquisition, Technology, and Logistics (AT&L), Human Capital Initiatives (HCI) in the Office of the Under Secretary of Defense (AT&L). Using the Defense Manpower Data Center (DMDC) as a primary source of inventory demographic data, RAND tracked acquisition employees from late 1991 to late 2006. The report makes the following recommendations: (1) better definition and tracking of the acquisition workforce

would improve workforce planning; (2) more detailed analysis of the current acquisition workforce and historical trends could yield additional insight, and (3) workforce analysis is only one step in an overall strategic human capital planning effort (Gates et al., 2008, p. xi). The study presents an acquisition workforce inventory projection model that can be used to project the characteristics and size of the workforce in the future based on the size of the current inventory and historical turnover information (p. 24). The key workforce factor used in the model is year of service. Starting with a beginning inventory and applying continuation rates (employees expected to remain in workforce an additional year), gain and separation/recategorization rates, the model presents how the workforce might appear at the end of each successive fiscal year. The model is available to DOD workforce planning personnel.

Another RAND report titled *An Operational Process for Workforce Planning* is one of the products of a project undertaken for the Office of the Secretary of Defense (OSD) within RAND's National Defense Research Institute (Emmerichs, Marcum & Robbert, 2004b). Starting with recommendations of the DOD Acquisition 2005 Task Force's final report, *Shaping the Civilian Acquisition Workforce of the Future* (OSD, 2000), which called for the development and implementation of needs-based human resource performance plans for the DOD civilian workforce, RAND developed a user's guide for those conducting workforce planning within acquisition organizations. The methodology is described primarily in terms of its application at a business unit level based on a review of workforce planning in both governmental and private-sector organizations. The report summary states that "Workforce planning is an organizational activity intended to ensure that investment in human capital results in the timely capability to effectively carry out the organization's strategic intent" (Emmerichs, Marcum & Robbert, 2004b, p. ix). Strategic intent is usually implicit and is an expression of what the leadership believes the business of the organization is and how that business will be accomplished through goals, guiding principles and/or strategies. "A major task for workforce planners is to identify explicitly those elements of strategic intent that workforce characteristics

help accomplish" (2004b, p. ix). In addition to identifying the major purposes of workforce planning (the goal-oriented view), the structural view presents four questions central to workforce planning:

> 1. What critical workforce characteristics will the organization need in the future to accomplish its strategic intent, and what is the desired distribution of these characteristics?
>
> 2. What is the distribution—in today's workforce—of the workforce characteristics needed for the future?
>
> 3. If the organization maintains current policies and programs, what distribution of characteristics will the future workforce possess?
>
> 4. What changes to human resource management policies and practices, resource decisions, and other actions will eliminate or alleviate gaps (overages or shortages) between the future desired distribution and the projected future inventory? (Emmerichs, Marcum & Robbert, 2004b, p. xi)

The process view proposes a four-step process to workforce planning relying on comprehensive data and sophisticated models utilized in an ongoing dialogue among the business unit's senior leaders. The report states that workforce characteristics and the distribution of workforce characteristics are the two central concepts embedded in the thematic questions cited above.

> A *workforce characteristic* is a concrete and measurable aspect of a group of workers that is critical for organizational success and can be influenced by human resource management policy decisions. Examples of workforce characteristics include occupation/job series, experience, competencies or skills (for example, leadership or multifunctionality), and education (for example, degree and discipline). The *distribution of workforce characteristics* is the frequency of occurrence of a workforce characteristic within an organization. Distribution can be expressed as the number or percentage of individuals (inventory) or positions (requirements) distributed across the categories defining the workforce characteristic. (Emmerichs, Marcum & Robbert, 2004b, pp. 9-10)

Yet another RAND study within its National Defense Research Institute is a report titled *Civilian Workforce Planning in the Department of Defense*, published in 2006. The study sought to describe the existing workforce planning process at individual military installations, to identify challenges to workforce planning at these

bases, and to consider options for DOD-wide workforce planning and OSD support for installation-level planning. The four basic steps of the model developed by the study effort are (1) forecast workforce requirements (staffing levels and competencies demanded in the future), (2) project workforce supply, (3) identify gaps between supply and demand, and (4) develop strategies that address key gaps. Six military sites were selected for in-depth analysis (Gates, Eibner & Keating, 2006, pp. xiv-xv). Only one base selected was an Army site. Noting that DOD lacks a Department-wide workforce planning process, RAND's study recognized that DOD does possess a set of resources that would serve as a starting point for such planning. The Defense Civilian Personnel Data System (DCPDS) is used by installations for some type of supply analysis, but the key limitation of existing data is a lack of information on skills and competencies (Gates et al., 2006, p. xvi). The study makes several recommendations to OSD concerning its support of local-level workforce planning efforts—including an improvement in existing data systems and their use, promotion of the collection of requirements data, the creation of a more meaningful gap analysis process, and a move to better integrate workforce planning and budgeting processes (Gates et al., 2006, pp. xxii-xxiii). Although not specifically focused on contracting personnel, the study does provide insight into the issues associated with projecting workforce requirements and supply, as well as gap analysis.

RAND published a book in 1994 entitled *Demographics: A Casebook for Business and Government,* wherein it discusses the current status of applied demographics. In addition to State and Local Government, business, and marketing applications, it focuses on human resource planning and the difficulties of expanding and contracting the workforce at different age ranges, family-workplace issues, and strategic planning problems. It suggests that demographers become involved in roles beyond their technical competence for a variety of reasons—such as, furnishing new perspectives and frames of reference, focusing attention on long-term issues, acting as catalysts for expanding thought processes within an organization, lending legitimacy to proposed actions under consideration, and

communicating information, ideas and viewpoints to top management (Kinter et al., 1994, p. 6).

In testimony before the Senate Committee on Governmental Affairs Subcommittee on Oversight of Government Management, Restructuring and the District of Columbia, RAND representatives discussed the effects of two key workforce-shaping tools: the voluntary separation incentive program (VSIP) and the voluntary early retirement authority (VERA) (Asch, 2003, May). The RAND testimony indicated the use of these tools could have a significant effect on reducing the workforce, allowing for a change in the skills and mix of the employees. The study found much reluctance or resistance on the part of managers to using these flexibility-related tools due to the lack of funds or the perceived relatively little need for incentives. In commenting on the Civil Service System, the testimony stated that there has been a degree of success in DOD in recruitment, retention, promotion and pay of *high-quality* personnel. The report goes on to say, however, that "The fact that some outcomes are better among higher-quality employees does not mean that *enough* higher-quality employees are being recruited and retained" (Asch, 2003, May, p. 7). The report cited the fact that most DOD organizations do not have workforce plans and, therefore, have not explicitly stated their personnel requirements. In looking toward the future, the study pointed out that the civil service system will be highly stressed as a result of an aging population and other demographic shifts. These stress points include: (1) decisions must be made to replace or possibly outsource the services provided by those retiring; (2) it may be difficult to find and hire large numbers of qualified replacements within a short time span; (3) the replacement skills will take place in a highly competitive environment, if the trends of the past 20 years continue; and (4) some retention of experienced personnel will be desirable. The testimony stated that to meet these challenges, decision-makers must know what characteristics define an effective human resource system. The following six criteria usually contain the factors most organization management studies identify as important.

1. The HR system offers flexible personnel and compensation tools or policies that efficiently promote the organization's mission.

2. Managers have discretion over how the personnel and compensation tools are used.

3. Managers have the incentive to use the personnel and compensation policies in a way that supports the organization's mission.

4. Resources are available to implement and monitor those policies.

5. Policies are transparent and appropriately linked to the organization's goals, and their implementation is subject to both internal and external oversight.

6. Policies are stable and limit the financial and career risks that workers face. (Asch, 2003, May, pp.10-12)

3. Federal Acquisition Institute

The Federal Acquisition Institute (FAI) issues an annual report on the Federal acquisition workforce concentrating primarily on the following occupational series: (1) 1101-General Business and Industry, (2) 1102-Contracting, (3) 1105-Purchasing, (4) 1106-Procurement Clerical and Assistance, and (5) 1150-Industrial Specialist. The report examines trends and makes suggestions regarding information for workforce planning and human capital assessments. In the table presenting the workforce at a glance, summary data for DOD and the Civilian Agencies for each of the occupational series is provided regarding the following demographics: (1) average grade, (2) average age, (3) percent female, (4) percent eligible to retire current year, (5) percent eligible to retire in ten years, (6) percent college graduates, (7) number of SES employees and (8) numbers of civilian personnel in each of the occupational series for DOD and the Agencies. Detailed sections of the report focus on turnover (attrition, hires, etc.), average salary, educational levels, academic majors of college graduates, and supervisory positions by occupation.

In October 2007, FAI issued a report presenting the results of its 2007 Contracting Workforce Competencies Survey. The survey targeted the GS-1102 series in the civilian agencies, including military personnel working outside DOD

performing contract specialist duties. Approximately 48% of the target population responded to the survey. The report analyzed proficiency levels regarding both general business and technical contracting competencies in various segments of the workforce—including educational level, years of experience, age, and training levels. The report states that overall, contracting workforce technical competencies are at expected levels. "Of the 17 technical competencies surveyed, gaps requiring attention were identified in project management, defining requirements, and financial management. General business competency gaps were identified in influencing/negotiating and oral communications" (FAI, 2007, p. 2). Corollary to this FAI competency report is a report prepared for FAI in December 2003 by SRA International, Inc., entitled *Report on Competencies for the Contracting Officer's Technical Representative (COTR) Job Function* (SRA, 2003). Although this report focuses on COTR competencies, it does provide a picture of the types and skills of individuals with whom contracting specialists must accomplish their work.

4. Office of Federal Procurement Policy

The cornerstone document for acquisition workforce development in the civilian agencies is the OFPP Policy Letter 05-01 dated April 15, 2005 (OFPP, 2005). It specifically includes personnel in the GS-1102 and 1105 occupational series, contracting officers, and contracting officer's technical representatives. In January 2006, OFPP issued a memorandum regarding the Federal acquisition certification in contracting program, which is intended to mirror the DOD contracting workforce requirements (OFPP, 2006). A similar certification program for contracting officer technical representatives was established in 2007 (OFPP, 2007, November 26).

Most applicable to DOD and ACC workforce issues, however, is a September 2007 OFPP memorandum addressing plans for hiring reemployed annuitants to fill acquisition-related positions as a result of provisions in the *General Services Administration Modernization Act*. The memorandum mentions functions particularly suited for reemployed annuitants—including acting as mentors to entry and mid-level

staff; serving as additional staff for short-term projects, surges, or during emergency situations; providing a ready knowledge pool of best practices; serving as consultants to address specific agency acquisition issues; and providing expert support to program managers in order to more effectively link contracting and program functions to improve the acquisition process (OFPP, 2007, September 4).

5. Department of Defense

Pertinent to this research is *DOD Instruction 5000.66* dated December 21, 2005. Although the instruction is applicable to all acquisition workforce members, Enclosure (6) spells out specific requirements for all 1102 occupational series personnel, similar military positions and contracting officer positions. These requirements involve training courses, contracting experience, a baccalaureate degree and 24 semester hours of courses in business disciplines.

An early warning signal regarding the acquisition workforce was provided in a DOD report entitled *Shaping the Civilian Acquisition Workforce of the Future* (OSD, 2000). The report provided data describing a potential mass exodus from the DOD acquisition workforce and offered 32 significant recommendations to enhance the ability of management to address the problems identified. Many of those recommendations have been instituted and no doubt have contributed to the improved workforce picture we see today.

Lastly, although somewhat dated, the *AT&L Human Capital Strategic Plan* (version 3.0) is a useful benchmark for human capital goals and initiatives in DOD (DOD (AT&L), 2007).

6. The Conference Board

Although not specifically focused on human capital issues in government, The Conference Board has produced several recent reports of value to any organization committed to human capital strategy. In evaluating motivation, trends and implementation challenges, one report suggests the following areas be subjected to trend analysis: recruitment, retention/turnover, employee attitude/engagement,

compensation, health/safety, competencies/training, workforce profile, and productivity measures (Gates, 2002, pp. 7-15). Another report cites the following as the most frequently used human capital measures: turnover (voluntary), workforce diversity, employee engagement, workforce age, employee satisfaction, training, health and safety, leadership, readiness level, promotion rate, employee commitment, span of control, competence level, executive stability (churn), and depletion cost (Gates, 2008, p. 7). In yet another study that provides several useful case studies, the research conclusions included the following regarding the value delivered by strategic workforce planning: (1) generating insights and knowledge executives can use to make business decisions, (2) providing a deeper and more nuanced understanding of workforce dynamics than previously available, (3) enabling organizations to mange human capital more efficiently, and (4) enabling human resource organization leaders to realize their long-held desire to become a player and a valued contributor to high-level business strategy decisions (Young, 2006, p. 5).

7. Other Sources

Many sources for this research effort emphasized either a crisis in human capital planning and utilization (Liebowitz, 2004) or the importance of understanding the new principles, concepts and perspectives in the theory and practice of human capital management (Farazmand, 2007; Burud & Tumolo, 2004; Picot, Saunders & Sweetman, 2007; Hartog & Maassen van den Brink, 2007; Boudreau & Ramstad, 2007). Some sources provide case studies, or "stories," that illustrate human capital assumptions, notions, attitudes and beliefs (Kinter et al., 1994; Burud & Tumolo, 2004).

Liebowitz (2004) identified a distinction between functions performed by the human resources group and those that should be performed by a human capital group under a Chief Human Capital Officer. The former is most appropriately concerned with specific personnel actions, compensation, benefits, career counseling and similar personnel-related tasks. A Chief Human Capital Officer, on

the other hand, should be more concerned with creating and aligning the execution of workforce development strategies and with the alignment of strategic effort with the organization's missions and goals (Liebowitz, 2004, p. 5).

8. Summary

Several key sources for workforce studies, reports and statistical data have been identified and briefly discussed in this Section. Appendix H cites these and additional sources that decision-makers could consult in developing and managing a comprehensive workforce strategy. In the next section, we will present and analyze key demographic factors essential to ACC workforce management.

III. Discussion Items

1. Items and Limitations

This section discusses the key demographic factors analyzed in this study. Data analyzed were drawn principally from the ACC civilian and military personnel databases. In addition, data were drawn from the following sources: DMDC, DAU, FAI, ISM, and the Air Force. The factors discussed below include education, certification, gender, age, eligibility to retire, grade levels, pay plans, competency, foreign nationals, contractor personnel, years of experience, and supervisory positions. It is to be noted that, unless otherwise stated, all subsections below exclude foreign nationals from the data analyzed. Foreign nationals are treated in a separate subsection. Although a total of five civilian database runs and four military database runs were provided for this study, this analysis is limited to two database runs provided in late April and late August 2009.

Although several tables in this section include comparisons between these two months in order to establish trend analysis, it should be understood that this time period is rather short to evaluate any significant trends; the ACC workforce is growing, and attrition rates are unavailable. Any trend analysis, therefore, is provided with this understanding.

Other limitations include the fact that some items in the databases are self-reported and may not be as accurate or current as desired, e.g., education and certification levels. In many cases, data were missing or known to be inaccurate. In cases in which an individual's record contained a data field that was "blank," "not applicable" or any other similar entry, that data field was eliminated from the statistical calculations. We conducted our analysis on the existing data with the acknowledgement that these significant deficiencies existed.

Throughout this section, three key definitions regarding personnel categories have been established by the researchers for purposes of analysis. (1) Senior grade

levels include ES, NH, GS-12 through GS-14, YA-03 and YC-02 and 03. All others are considered junior personnel. YA-02 is not included in these data because this pay band includes both junior- and senior-grade personnel. (2) Supervisors are identified in the database as Supervisor, Management or Supervisor/Manager. (3) Data shown are primarily for officer personnel in the Military Occupational Specialty (MOS) FA 51 series. Officer personnel not in the MOS FA 51 series (such as logistics or legal designations) are not included in this group. Officer ranks range from Captain (0-3) through Brigadier General (0-7). Those individuals selected for promotion have a "(P)" next to their rank and are included with the figures for their current rank.

2. Education

Education levels for ACC civilian personnel were compared to all Army, Navy/Marine Corps, Air Force, and Defense Agency civilian personnel, as well as Federal 1102 employees in non-DOD agencies. Table 1 presents a breakdown of educational levels as follows: (1) less than a bachelor's degree (<Bachelor's) which includes less than a high school diploma, (2) a bachelor's degree (Bachelor's), and (3) post-bachelor's degree education up through post-doctoral work (>Bachelor's). These data show that ACC has a significantly higher percentage of civilian 1102s with less than a bachelor's degree (25.6%) than the other DOD agencies and also a higher percentage than those without a bachelor's degree in civilian agencies (23.8). At the same time, ACC has a significantly lower percentage of civilian 1102s with education above a bachelor's degree (21.7%) than the other organizations in Table 1.

Table 1. Civilian Workforce Education Comparison

Civilian Workforce Education Comparison				6/17/09
Organization	**<Bachelors**	**Bachelors**	**>Bachelors**	**# of Pers**
ACC	25.6%	52.7%	21.7%	3,421
All Army	21.6%	50.4%	27.5%	5,889
Navy/MC	19.9%	54.0%	25.4%	3,739
Air Force	11.9%	40.8%	46.6%	4,767
DOD Agencies	20.1%	52.1%	27.3%	5,596
FAI*	23.8%	46.4%	29.8%	29,539
*Data from FAI FY2008 survey includes all Federal Government (including DOD) contracting employees.				

Table 2 compares civilians in senior versus junior grade levels. The percentage of junior civilians with less than a bachelor's degree is decreasing. A significant finding, however, is that there are any junior personnel at all who do not have at least a bachelor's degree, since that should have been a condition of appointment to a Government civil servant contracting position. It is somewhat confounding that FAI (2009) found that just 83% of new Army contracting hires (and only 90% of its external contracting hires) in 2008 did have bachelor's degrees. However, an examination of education information in the ACC database must be tempered with the acknowledgement that education level is a self-reported item in the ACC database and, as such, is subject to significant inaccuracy. Notwithstanding that limitation, the data indicate that almost 26% of senior personnel do not have the minimum required bachelor's degree. This may be due to some grandfathering, a waiver in policy, or inaccurate data. Both findings ensure the need to reflect current education levels in the data.

Table 2. Senior vs. Junior Grade Levels

Senior vs. Junior Grade Levels								
	<Bachelor's		Bachelor's		>Bachelor's		Total #	
	Senior	Junior	Senior	Junior	Senior	Junior	Senior	Junior
April	25.9%	23.9%	51.0%	56.2%	23.1%	19.9%	2065	995
August	26.1%	21.1%	50.9%	58.5%	23.0%	20.4%	2082	1096

Table 3 compares General Schedule (GS) employees to the newer National Security Personnel System (NSPS) employees. The GS percentage trend is appropriately decreasing, probably due to new hires, while the YA/YC trend is relatively stable.

Table 3. GS vs. YA/YC Grades

GS vs. YA/YC Grades								
	<Bachelor's		Bachelor's		>Bachelor's		Total #	
	GS	YA/YC	GS	YA/YC	GS	YA/YC	GS	YA/YC
April	26.2%	25.4%	53.8%	49.1%	19.9%	25.5%	2372	989
August	25.1%	25.6%	54.7%	48.9%	20.2%	25.5%	2472	997

Table 4 compares female versus male educational levels. There is a significant negative percentage disparity between male and female at all educational levels. Over 33% of females do not hold at least a bachelor's degree, while the male population without a degree is one-sixth. Males, on the other hand, have a much greater percentage of bachelor's and advanced degrees than females. Other than males at the > bachelor's level, the trend is improving for both genders. The overall trend should be monitored and the disparity between female and male at the less than bachelor's level should be watched closely. Of the 1102 population with a bachelor's degree or higher, 54% are female. Seventy-four percent of the ACC 1102 workforce holds at least a bachelor's degree, which compares fairly closely to the FAI report of 76% for the entire Federal 1102 workforce (FAI, 2009, p. v).

Table 4. Gender

Gender								
	<Bachelor's		Bachelor's		>Bachelor's		Total #	
	Female	Male	Female	Male	Female	Male	Female	Male
April	33.1%	16.0%	48.9%	57.1%	18.0%	27.0%	2063	1358
August	32.3%	15.7%	49.3%	57.7%	18.4%	26.6%	2107	1422

Table 5 shows that the number of supervisory personnel without a bachelor's degree is decreasing but still represents a sizable number of individuals in

leadership positions that should be meeting minimum standards. Supervisors who hold a bachelor's degree or above are decreasing as well, but this could be due to the attrition of these older employees.

Table 5. Supervisors vs. Non-Supervisors

Supervisors vs. Non-Supervisors								
	<Bachelor's		Bachelor's		>Bachelor's		Total #	
	Supervisor	Non-Supr	Supervisor	Non-Supr	Supervisor	Non-Supr	Supervisor	Non-Supr
April	21.8%	27.3%	50.8%	52.5%	27.4%	20.2%	624	2800
August	21.7%	26.4%	50.2%	53.2%	28.0%	20.3%	621	2913

Military officers cannot receive a commission unless they have a bachelor's degree; hence, as shown in Table 6, no officers lack this credential. Even more notable is the fact that over 60% of the officers have education greater than a bachelor's degree, although this number is falling as more junior personnel are brought into the workforce. The comparison between officer and enlisted personnel is presented only for purposes of contrast. Of note is that over 30% of the enlisted ranks hold at least a bachelor's degree, although that trend is showing a decrease as well. Although the number or degrees held beyond the minimum required for soldiers is a remarkable achievement for both enlisted and officers, there is a downward trend in educational levels for both groups, which may be attributable to increased operational tempo and deployment requirements.

In comparing educational levels between military officers and civilians in ACC, the researchers noted the most prominent difference is the high percentage of officers with education beyond the bachelor's level compared to their civilian colleagues. This is partly a result of the heavy emphasis placed on obtaining advanced degrees as part of officers' career development. It is unknown how many officers are commissioned already holding an advanced degree, but the researchers believe that the number is relatively small. Table 6 also confirms the reduction in the "less than bachelor's degree" standing for the overall civilian workforce. The ultimate goal would be to continue the downward trend in this category.

Table 6. Military Officer vs. Enlisted

Military Officer vs. Enlisted								
	<Bachelor's		Bachelor's		>Bachelor's		Total #	
	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted
April	0.0%	64.0%	35.2%	26.1%	64.8%	9.9%	196	111
August	0.0%	69.7%	39.1%	22.0%	60.9%	8.3%	258	132
Military Officer vs. Civilian								
	<Bachelor's		Bachelor's		>Bachelor's		Total #	
	Officer	Civilian	Officer	Civilian	Officer	Civilian	Officer	Civilian
April	0.0%	26.3%	35.2%	52.1%	64.8%	21.5%	196	3421
August	0.0%	25.6%	39.1%	52.7%	60.9%	21.7%	258	3529

As interns and other new hires are accessed into the ACC workforce and older employees are retiring, the percentage of those holding less than a bachelor's degree should rapidly decrease. This should occur as a result of at least three factors. (1) New accessions should meet this standard upon arrival. Because interns are a significant portion of new accessions, this should contribute to higher educational percentage levels. (2) Many of the older employees nearing or beyond retirement eligibility were grandfathered without a degree. The fact that these employees are now retiring should contribute to lowering the percentage of those with less than a bachelor's degree. (3) The Army is placing greater emphasis on obtaining post-bachelor's education to enhance promotability and mobility within career assignments, e.g., the Naval Postgraduate School's Master of Science in Contract Management (MSCM) and Advanced Acquisition Program (AAP). The data provided for this research did not present the types of degrees held and the nature of college courses taken by ACC employees. Capturing and utilizing such data would enhance workload assignment, business and technical competencies, and educational planning.

Table 7 provides information regarding the relationship between education and certification levels for civilian ACC personnel with less than a bachelor's degree. This information is provided to highlight the number of civilians without a bachelor's degree who hold various certification levels. Given that a bachelor's degree is

required (1) for entry into the civilian contracting workforce and (2) *Defense Acquisition Workforce Improvement Act* (*DAWIA*) Level I certification, the number of those with less than a bachelor's degree merits further investigation. In capturing a bit more detail, Table 8 focuses on the August population in comparison to those with a bachelor's degree and higher. Sixty-nine percent of those with less than a bachelor's degree are between the ages of 40 and 59. This finding appears to be consistent with the perceived impact of grandfathering on the "less than bachelor's" population of the workforce.

Table 7. Education Certification Levels

Education					
Certification Levels					
<Bachelor 's					
	None	I	II	III	Total
April	3.7%	5.0%	7.5%	10.2%	26.4%
August	3.9%	5.0%	7.1%	9.7%	25.7%
April	125	170	255	350	900
August	139	175	249	341	904

Table 8. Education vs. Age

Education vs. Age							
August	20-29	30-39	40-49	50-59	60-65	>65	Total
<Bachelor's	63	82	243	380	98	38	904
Bachelor's	339	338	518	535	107	23	1860
>Bachelor's	43	135	226	276	59	26	765

Table 9 portrays the numbers and percentages of supervisors at the three educational levels. The trends appear to be going in the right direction, showing "less than bachelor's" and "bachelor's" going down and "greater than bachelor's" going up; however, the fact that there are any supervisors at all who have not met the minimum educational requirement for contracting personnel is of concern. Again, grandfathering could be the principal factor contributing to the large percentage of those with less than a bachelor's degree.

Table 9. ACC Education—Supervisors

ACC Education							
Supervisors							
	<Bachelor's		Bachelor's		>Bachelor's		
	#	%	#	%	#	%	Supervisors
April	136	21.9%	314	50.6%	171	27.5%	621
August	134	21.8%	309	50.2%	173	28.1%	616

Appendix A presents more detailed information concerning education in the ACC workforce.

3. Certification

Contracting certification required by the *DAWIA*, with amendments, has been an important part of the career development of contracting personnel in ACC. The emphasis on the elements of certification (training, education and experience) has increased each year since *DAWIA*'s inception. Requirements for contracting personnel have been enhanced to include a minimum of a bachelor's degree and 24 semester hours of business-related subjects.

Table 10 depicts the total ACC 1102 civilian workforce certification levels for April and August 2009. The total number of personnel has increased, with a concurrent increase in the number of employees holding no certification and a decrease in those holding Levels II and III certification. This is consistent with an increase in the number of interns at the junior grade levels and an attrition of senior personnel (perhaps due to retirement) with the higher certification levels. Although decreasing, the percentage of civilians holding a Level III certification remains above 35% of the ACC civilian workforce. On a somewhat comparative note, Navy 1102 contracting certification levels are: I-9.9%, II-32.8%, III-42.4%, Unknown-14.9%, and Air Force 1102 contracting certification levels are: I-6.6%, II-37.0%, III-37.8%, None-18.5%, Unknown-0.02%.

Table 10. ACC Certification

	ACC Certification									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	464	13.6%	747	22.0%	956	28.1%	1233	36.3%	3400	100%
August	566	16.1%	785	22.4%	930	26.5%	1231	35.1%	3512	100%

Tables 11 and 12 present more detailed data regarding the certification of senior and junior civilian grade levels. Table 11 demonstrates that a fairly large percentage (approximately 24%) of senior civilian employees hold a certification below Level II. This percentage should gradually decrease as senior grandfathered personnel retire. If this percentage does not decrease, as expected, a more thorough analysis of factors contributing to low level or no certification should be undertaken to determine which of the three elements of certification are deficient. Since senior personnel should have easily met the experience requirement, either training courses or educational degree requirements are the primary contributing factors. Table 2 above demonstrates that approximately 26% of senior civilian personnel do not have at least a bachelor's degree; thus, educational requirements are a prime factor for that group. Senior personnel at Level III have also dropped in numbers and percentage; however, this may again be due to attrition.

Table 11. ACC Certification—Senior Grades

ACC Certification										
Senior Grades										
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	56	2.7%	449	21.6%	496	23.8%	1081	51.9%	2082	100%
August	49	2.3%	452	21.6%	515	24.7%	1073	51.4%	2089	100%

In Table 12, the junior grades appear to be exhibiting what might be expected regarding certification. Those with no certification are increasing in both number and percentage due, most likely, to an accession of very junior interns. An encouraging sign is the percentage (approximately 31%) of junior-graded personnel who have

obtained Levels II or III certification in August, although the trend from April to August does show a decrease in both number and percentage. It can be expected that those percentages will continue to fall as the population grows through accession of junior personnel. Of note, however, is a large decrease in the total number of junior personnel at Level II. This may be attributable to promotion to senior levels or exit from the ACC workforce.

Table 12. ACC Certification—Junior Grades

	ACC Certification Junior Grades									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	371	37.0%	242	24.2%	352	35.1%	37	3.7%	1002	100%
August	488	44.3%	273	24.8%	309	28.0%	32	2.9%	1102	100%

Table 13 displays certification levels by gender. These indicate that the percentage of females versus males for each certification level is approximately the same as the general female versus male population of 60/40. The only slight exception to this observation is the smaller percentage of females who have no certification compared to males for that category in August.

Table 13. ACC Certification—Gender

	ACC Certification									
	Females									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	378	59.6%	454	60.6%	565	59.0%	768	62.0%	2165	60.5%
August	419	57.0%	470	59.6%	559	60.1%	759	61.4%	2207	59.8%
	Males									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	256	40.4%	295	39.4%	393	41.0%	471	38.0%	1415	39.5%
August	316	43.0	318	40.4%	371	39.9%	477	38.6%	1482	40.2%

Table 14 presents contracting certification data for officer personnel in the Military Occupational Specialty (MOS) FA 51 series. The data show that a growing

percentage of personnel hold no certification. This result is expected, since accession into the acquisition workforce is at the junior (0-3) rank, and these individuals typically have no contracting experience or training. As expected, the more senior personnel hold the higher-level certifications. As seen previously in educational levels, the downward trends in certification levels for officers may also be attributable to increased operational tempo and deployment requirements. Enlisted certification data were unavailable for this study.

Table 14. ACC Certification—Military FA 51

	ACC Certification Military FA 51									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	65	39.9%	17	10.4%	40	24.5%	41	25.2%	163	100%
August	119	51.3%	22	9.5%	45	19.4%	46	19.8%	232	100%

Table 15 presents certification levels of supervisory versus non-supervisory civilian personnel. Using August figures, 28% of supervisory personnel have either no certification or only a Level I certification. This is alarming because it appears to depict that employees holding a lower-level contracting certification are supervising higher-level certified personnel. Although this is a fairly high percentage and should be monitored, the trend suggests that the number of supervisors with no certification is decreasing either because they are achieving Level I or because they are leaving the workforce, probably through retirement. Supervisors at Levels II and III are remaining fairly constant and constitute over 70% of the civilian supervisory workforce. Non-supervisory personnel certifications are exhibiting an expected increase at the “None” and “I” levels due to an influx of lower-grade personnel. No comparable data for military personnel exists.

Table 15. ACC Certification—Supervisory Personnel

	ACC Certification									
	Supervisory Personnel									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	24	3.8%	154	24.7%	36	5.8%	410	65.7%	624	100.0%
August	18	2.9%	156	25.1%	37	6.0%	410	66.0%	621	100.0%
	Non-Supervisory									
	None		I		II		III		Total	
	#	%	#	%	#	%	#	%	#	%
April	610	20.6%	595	20.1%	922	31.2%	829	28.0%	2956	100.0%
August	717	23.4%	632	20.6%	893	29.1%	826	26.9%	3068	100.0%

In general, it is expected that as the workforce develops, a larger percentage of employees will have achieved the upper levels of certification and that the more senior personnel will hold the higher-level certifications. ACC management should monitor certification trends to ensure this occurs. Specific recommendations are detailed in Section VI.

Appendix B presents more detailed information concerning *DAWIA* certification in the ACC workforce.

4. Gender

Table 16 displays the total number of females versus males in the ACC population for civilians. The percentage of civilian ACC female versus male employees is approximately 60% to 40%. This is very much in line with FAI surveys of the entire 1102 civilian workforce throughout the Federal Government, which report the same 60/40 split (FAI, 2009). The trend is showing a slightly faster rate of growth for males, but the researchers expect these percentages will not vary significantly over time.

Table 16. Gender

Gender			
	Female	**Male**	**Total**
April	2050	1350	3400
August	2096	1416	3512
April	60.3%	39.7%	**100%**
August	59.7%	40.3%	100%

Table 17 displays gender by age ranges. The top set of figures is the total number of personnel in each category. The second set of figures reflects the percentages of females or males within their own population. The third set of figures reflects female and male employees as a percentage of the total 1102 workforce. Examining just the August figures in the second set, we see that the male population over 50 years of age is 45.9% of males, while the female population over 50 is 43% of the females. The percentages of each are about the same (27.6% vs. 28.2%) when considering the under-40 age groups. In reviewing the percentages of each within the total workforce for just August, the researchers noted that in the under 40 category, females are a larger group (16.5%) than males (11.3%). They are also a larger group in the over 50 category (25.7% vs 18.4%). Other aspects of age ranges are discussed in the next section.

Table 17. Gender by Age Ranges

Gender by Age Ranges												
Number of Employees												
	20-29		30-39		40-49		50-59		60-65		>65	
	F	M	F	M	F	M	F	M	F	M	F	M
April	220	170	349	200	657	361	753	503	139	145	47	36
August	242	206	367	212	650	384	761	495	133	149	54	36

Chart 1 illustrates the ACC female distribution by age groups.

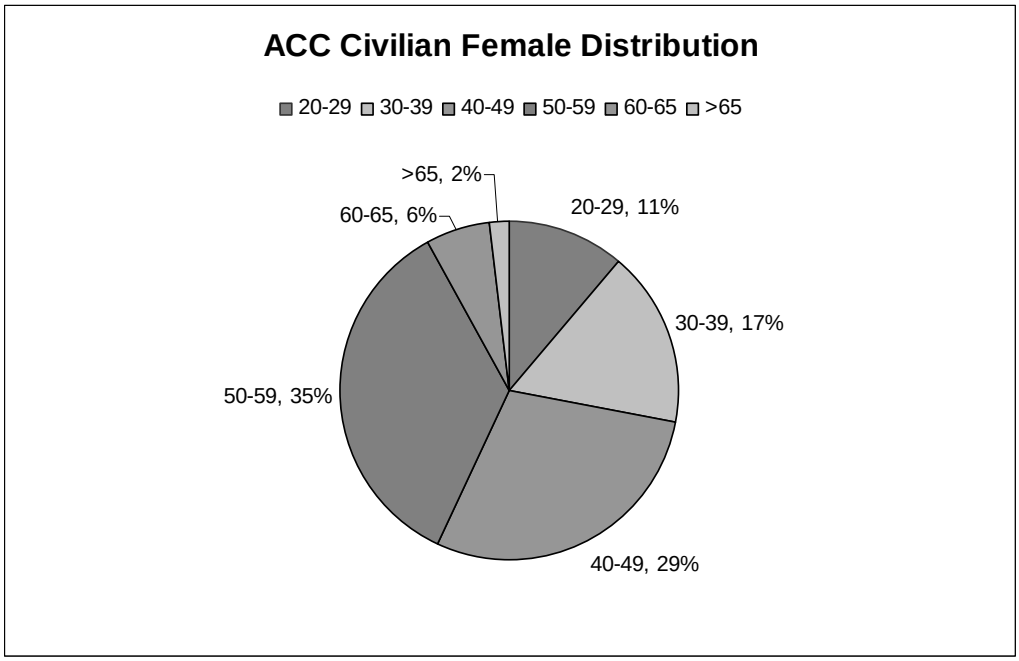

Chart 1. ACC Civilian Female Distribution

Chart 2 illustrates the ACC male distribution by age groups.

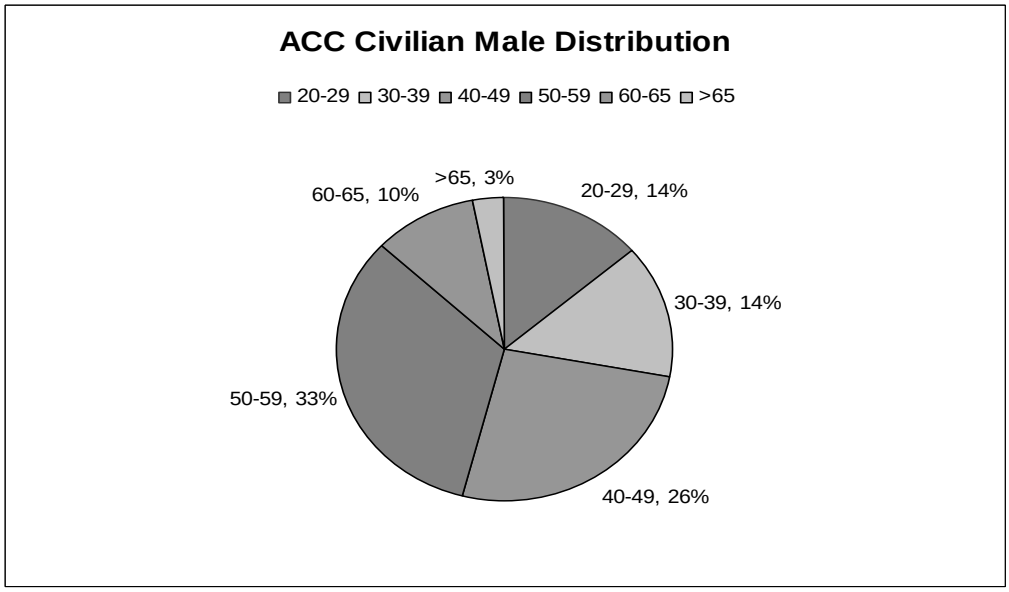

Chart 2. ACC Civilian Male Distribution

Table 18. % of Female and Male within Category

% of Female and Male Within Category												
	20-29		30-39		40-49		50-59		60-65		>65	
	F	M	F	M	F	M	F	M	F	M	F	M
April	10.2%	12.0%	16.1%	14.1%	30.3%	25.5%	34.8%	35.5%	6.4%	10.2%	2.2%	2.5%
August	11.0%	13.9%	16.6%	14.3%	29.5%	25.9%	34.5%	33.4%	6.0%	10.1%	2.4%	2.4%
	F<40	27.6%					F>50	43.0%				
	M<40	28.2%					M>50	45.9%				

Table 19. % of Female and Male within Total Population

% of Female and Male Within Total Population												
	F	M	F	M	F	M	F	M	F	M	F	M
August	6.6%	5.6%	9.9%	5.7%	17.6%	10.4%	20.6%	13.4%	3.6%	4.0%	1.5%	1.0%
	F<40	16.5%					F>50	25.7%				
	M<40	11.3%					M>50	18.4%				

Chart 3 illustrates both ACC female and male distribution by age throughout the entire population.

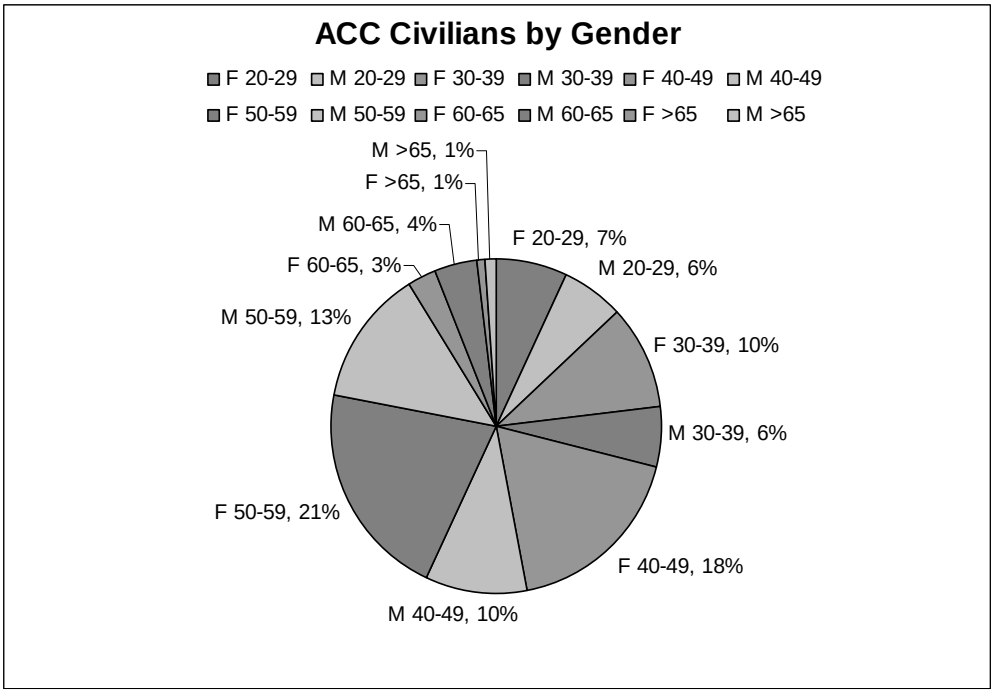

Chart 3. ACC Civilians by Gender

Table 20 depicts the number and percentage of females versus males in supervisory positions. The trend shows an overall decrease in numbers and percentages for females, with a slight increase for males. Another comparison is the percentage of females in the workforce (approximately 60%) with the percentage of supervisors that are female (approximately 56%). Supervisors as a group, however, are decreasing as a percentage of the entire workforce. This may be attributable to supervisors retiring and subsequent position vacancies. Eventually, however, supervisory personnel as a percentage of the workforce should level off or even increase. If not, this could indicate that vacant supervisory positions are remaining unfilled—a condition that should initiate management attention.

Table 20. Supervisory Personnel by Gender

Supervisory Personnel by Gender			
	Female	**Male**	**Total**
April	357	272	629
August	347	274	621
Percent of Supervisors			
	Female	**Male**	
April	56.8%	43.2%	
August	55.9%	44.1%	
Supervisors as a Percent of Total Civilian Workforce			
	Female	**Male**	
April	10.0%	7.6%	
August	9.4%	7.4%	

Table 21 presents gender by senior and junior grade levels. In both categories, female percentages are decreasing slightly, even though the numbers of junior-level females and males have increased about the same (56 vs. 54). This is somewhat consistent with the same trend occurring in the supervisory ranks in Table 20.

Table 21. Gender

Gender			
Senior Grades			
	Female	**Male**	**Total**
April	1266	816	2082
August	1258	831	2089
	Female	**Male**	
April	60.8%	39.2%	
August	60.2%	39.8%	
Junior Grades			
	Female	**Male**	**Total**
April	579	423	1002
August	625	477	1102
	Female	**Male**	
April	57.8%	42.2%	
August	56.7%	43.3%	

Appendix C presents more detailed information concerning gender in the ACC workforce.

5. Age

An important aspect of workforce demographics is the age of employees. In August 2009, the average age of ACC civilians was 48.29, which is slightly younger than the average of all Federal contracting civilian employees of 49.92. There is concern that an aging workforce will cause an imminent loss of employees, together with their knowledge and skill base—contributing to the loss of productivity and the recruitment difficulties already existing in the Federal workforce (OSD, 2000; FAI, 2009).

Table 22 presents the age ranges of ACC civilian personnel in both the April and August databases. Foreign nationals are included. The trend is showing some signs that the workforce is getting younger. Without knowing the attrition demographic statistics, we believe the increase in younger-age personnel—together with the apparent slight or no decrease in older employees—is an encouraging sign.

Many older employees, however, seem to continue to stay in the workplace; this trend should lessen the impact of exiting (retiring or transferring) personnel.

Table 22. Civilian Age Ranges

Civilian Age Ranges							
	20-29	30-39	40-49	50-59	60-65	>65	Total
April	390	549	1018	1256	284	83	3580
August	448	579	1034	1256	282	90	3689
	20-29	30-39	40-49	50-59	60-65	>65	
April	10.9%	15.3%	28.4%	35.1%	7.9%	2.3%	99.9%
August	12.1%	15.7%	28.0%	34.0%	7.6%	2.4%	99.8%

Table 23 presents the age ranges for civilian supervisory personnel in ACC. Over 92% of the supervisors/managers are over the age of 40, and over 60% of all supervisory employees are over the age of 50. There is a slight reduction in the number of supervisors in the 60-65 age range (perhaps due to retirement) and a slight increase in the younger (40-49) age range, perhaps due to promotion. Otherwise, the supervisory category has remained fairly stable. Of concern is the large number of supervisory personnel who are either at or nearing retirement eligibility and could quickly exit the ACC ranks—taking with them a considerable knowledge base. Younger personnel will be called upon to move into these supervisory and management positions, possibly lacking the advanced and cultivated skills required of such positions. Age is one of two components involved in retirement eligibility; cumulative service is the other. See the next section for further discussion on retirement vulnerability of supervisors.

Table 23. Supervisor Age Ranges

Supervisor Age Ranges							
	20-29	30-39	40-49	50-59	60-65	>65	Total
April	7	35	191	321	60	10	624
August	6	35	198	320	52	10	621
	20-29	30-39	40-49	50-59	60-65	>65	
April	1.1%	5.6%	30.6%	51.4%	9.6%	1.6%	99.9%
August	1.0%	5.6%	31.9%	51.5%	8.4%	1.6%	100%

Table 24 presents the age ranges of officer personnel, while Table 25 shows ages for enlisted personnel. Officers typically enter the acquisition workforce at the eight-year point in their career, which means they are either a Captain (0-3) or have been selected for that rank. Enlisted must be at least a Sergeant (E-5) in order to join the acquisition workforce.

Due to the accession requirements into the Army acquisition corps for both officer and enlisted personnel, as anticipated, over 90% in both categories are between the ages of 30 and 49. This demographic trend is expected to continue in the future, unless accession requirements are relaxed to allow lower-graded personnel to enter the acquisition workforce. Unknown (Unk) personnel are those records with name and rank but no further data.

Table 24. Officer Age Ranges

Officer Age Ranges							
	20-29	30-39	40-49	50-59	Unk		Total
April	2	100	83	11	0		196
August	4	133	109	12	5		263
	20-29	30-39	40-49	50-59	Unk		
April	1.0%	51.0%	42.3%	5.6%	0.0%		99.9%
August	1.5%	50.6%	41.4%	4.6%	1.9%		100%

Table 25. Enlisted Age Ranges

Enlisted Age Ranges						
	20-29	30-39	40-49	50-59	Unk	Total
April	8	61	40	2	0	111
August	13	77	41	2	4	137
	20-29	30-39	40-49	50-59	Unk	
April	7.2%	55.0%	36.0%	1.8%	0.0%	100%
August	9.5%	56.2%	29.9%	1.5%	2.9%	100%

6. Eligibility to Retire

One of the major concerns regarding the DOD acquisition workforce in general—and the contracting workforce in particular—has been the percentage of employees who are or will be eligible in the near future to retire. Although statistics have shown that Federal Government workers (particularly in the acquisition workforce) have tended to stay on the job well after retirement age, there is still concern over the large numbers of civil servants who might exodus Government employment (OSD, 2000; FAI, 2009). FAI surveys have shown that approximately 14% of the Federal contracting workforce in the civilian agencies could retire immediately, while 54% of this workforce is retirement eligible within the next ten years (FAI, 2008). Comparable figures for all ACC civilians are that 7% is eligible to retire immediately, and 35% is eligible to retire within the next ten years. Although these figures are not quite half of the Federal numbers, they nonetheless represent a large portion of the skilled and knowledgeable personnel in the workforce.

While the potential loss of experienced personnel is worrisome, the pending departure of experienced supervisors is especially disturbing. Table 26 depicts the number and percentage of supervisors eligible to retire immediately and within 5-year increments from the present date. Note that over 69% of the supervisors are eligible to retire within the next 10 years, while over 12% are eligible immediately. It is troubling that of those eligible to retire in the next ten years, 69% are supervisors. As such, nearly twice the percentage of supervisors is eligible to retire compared to

those eligible in the ACC general contracting workforce (35%). Workforce planning efforts must surely include consideration of this crucial issue.

Table 26. Supervisors Years to Retirement

Supervisors Years to Retirement							
	Now	<5 yrs	5-10 yrs	10-15 yrs	15-20 yrs	>20 yrs	
April	86	191	160	67	33	87	624
August	77	195	160	65	32	92	621
April	13.8%	30.6%	25.6%	10.7%	5.3%	13.9%	100.0%
August	12.3%	31.3%	25.6%	10.4%	5.1%	14.7%	100.0%

7. Grade Levels

Table 27 presents aggregate civilian grade levels, while Table 28 presents aggregate military grade levels for both officer and enlisted personnel. As the ACC workforce grows, both civilian and military acquisition categories have increased from April through August throughout almost all junior and senior levels. Some decreases, predominantly at the senior levels, could be due to retirement.

Table 27. Grade Levels

Civilian	Grade Levels	
	DB:4/29/09	**DB: 8/26/09**
ES-1102-00	3	4
GS-1102-05	18	19
GS-1102-07	214	283
GS-1102-09	217	238
GS-1102-11	528	531
GS-1102-12	861	851
GS-1102-13	514	528
GS-1102-14	32	32
NH-1102-02	14	12
NH-1102-03	5	9
YA-1102-01	25	31
YA-1102-02	316	321
YA-1102-03	159	175
YC-1102-02	339	320
YC-1102-03	155	158
Grand Total	3400	3512

Table 28. Military Grade Levels

Military Grade Levels					
Officer	**April**	**August**	**Enlisted**	**April**	**August**
BG	1	1	**CSM**	3	3
COL	12	19	**SGM**	9	10
LTC	36	48	**MSG**	18	14
MAJ	124	162	**SFC**	53	67
CPT	23	31	**SSG**	25	37
CWO4	0	1	**SGT**	3	5
CWO2	0	1	**Totals**	111	136
Totals	196	263			

Appendix D presents more detailed information concerning grade levels for both civilians and military personnel in the ACC workforce, including military occupational specialties (MOS) for both officers and enlisted.

8. Pay Plan

Table 29 presents data regarding the various pay plans within which ACC personnel are enrolled. ES are Senior Executive Service (SES) personnel; GS is the General Schedule plan; YA (Standard-Professional/Analytical) and YC (Standard-Supervisor/Manager) are National Security Personnel System (NSPS) plans; and NH is Business Management and Technical Management Professional. Although the ACC workforce has increased by 109 employees, the only notable reduction has occurred in the YC (supervisor/manager) category, which (again) may be due to retirement.

Table 29. Civilian Pay Plans

Civilian Pay Plans					
Plan	**April**			**August**	
	#	%		#	%
ES	3	0.1%		4	0.1%
GS	2384	66.6%		2482	67.3%
YA	500	14.0%		527	14.3%
YC	494	13.8%		478	13.0%
NH	19	0.5%		21	0.6%
Foreign Nationals	170	4.7%		168	4.6%
Unknown	8	0.2%		9	0.2%
Not Applicable	2	0.1%		0	0.0%
Totals	3580	100%		3689	100%

Appendix E presents more detailed information concerning pay plans in the ACC workforce.

9. Competency

The issue of employee skills and abilities to perform required tasks has been a subject of discussion for decades. Worker productivity, performance capability, knowledge levels, expertise, conventional wisdom, common sense and a host of other important attributes have been studied and described in several dimensions. One approach to this area has been the concept of competency. How well does an individual perform his/her tasks? Which tasks or functions are the most critical to accomplishing an organization's mission, and how well does the workforce do in completing these? What are standard competency or proficiency levels against which an organization might measure both its strengths and weaknesses—allowing it to attack gaps that exist? In its 2008 report, the Panel on DOD Human Capital Strategy pointed out that the definition "competency" is very ambiguous:

> There are almost as many definitions as there are practitioners of "competency modeling" and developers of "competency-based" human resource systems. Compounding the problem is the fact that most of the definitions that have been developed describe a complex and multifaceted concept. (Hanser et al., 2008, p. 15)

In 2007, DOD conducted a competency survey of the contracting workforce to determine frequency and proficiency levels for approximately 50 technical competencies (OUSD(AT&L), 2007). Ten business competencies were also included. The responses for many organizations were voluntary, but several commands attempted a 100% response rate. Although the results have not yet been formally released, individual commands have been given access to limited aggregate data regarding their employees. Several individuals have identified critical errors in the survey methodology and implementation. In a separate 2008 survey (published in 2009), FAI included technical competencies and found that the overall proficiency levels had risen from the previous year but that gaps still existed in such areas as strategic planning, requirements management, market research, negotiation and performance-based acquisition (FAI, 2009, p. 80).

Table 30 displays the "business" competencies ranked in a previous iteration of FAI's recurring series of workforce surveys (FAI, 2007, pp. 4-5). These competencies were identified in order of importance by contracting personnel who participated in the FAI survey. Additionally, Table 30 lists (without any order of importance) an identification of the skills OSD surveyed in its 2007 competency assessment (OUSD(AT&L), 2007). Obviously, it depends upon how these competencies are defined, but of interest is the fact that integrity/ethics is high on FAI's list but is not listed by DOD. Further, reasoning, influencing/negotiating and creative thinking (all skills generally considered critical to a business person's competence) are also not listed by DOD. Both lists seem to be predominantly tactically oriented and fail to address competencies for future success, such as strategic sourcing and supplier management.

The point of this discussion is that competency is an integral part of the demographics of the workforce. It serves as the foundation and baseline for workforce assessment and development strategies. The definition and assessment of competencies impact decisions regarding recruitment, training and education, staffing and other key areas. As such, robust workforce competency definitions and

assessments accurately reflecting the essential workforce components necessary to meet the mission are essential to an effective human capital strategy.

Table 30. Competency

Rank	FAI Proficiency	DOD Skills*
1	Teamwork	
2	Integrity/Ethics	
3	Written Communication	Written Communication
4	Self-Management/Initiative	
5	Customer Service	Customer Service
6	Interpersonal Skills	Interpersonal Skills
7	Flexibility	Flexibility
8	Problem Solving	Problem Solving
9	Planning & Evaluation	
10	Reasoning	
11	Decision Making	
12	Oral Communication	Oral Communication
13	Information Management	
14	Influencing/Negotiating	
15	Creative Thinking	
		Decisiveness
		Technical Capability
		Resilience
		Accountability
*OSD Competency Assessment of the DOD-wide Contracting Workforce, July 2007		

10. Foreign Nationals

There are approximately 170 foreign nationals in the ACC workforce located at various OCONUS military installations. Because grade, certification and education levels are distinctly different from U.S. employees in the workforce, they have been excluded, unless otherwise noted, from most of the statistical data presented in this report.

Table 31 provides information regarding the gender makeup of foreign national personnel by grade levels. The split between female and male within the foreign national workforce is fairly close to that exhibited by U.S. civil servants in the

ACC 1102 community. Regarding education, one employee has a Master's degree; one employee has two years of college, and the remaining employees have anywhere from a high school diploma to uncompleted elementary-level education.

Table 31. Foreign National Civilians

Gender			
Foreign National Civilians			
	Female	**Male**	**Total**
April	108	62	170
August	103	65	168
	Female	**Male**	
April	63.5%	36.5%	100%
August	61.3%	38.7%	100%

Appendix F provides a breakdown of foreign national employees.

11. Experience

Experience is an important factor in our understanding the abilities of the workforce and should be tracked carefully. Unfortunately, almost 75% of the civilian employees are missing this element in their database records. Until this data element has been entered, particularly for supervisors and senior personnel, a valuable aspect of workforce planning and decision-making is unavailable to ACC management. The new ARC workforce resource tool being developed offers a promising experience collection capability.

12. Supervisors

In previous sections, comparisons and observations have been made regarding supervisors relative to education, certification, gender and age. Specific note was made of the number of supervisors who are eligible to retire immediately and within 5-year increments from the present time. Also, while 18% of the ACC civilian contracting workforce is supervisors (as compared to 14% in the FAI survey), it appears there is no standard regarding the percentage of supervisors that should

exist in a given contracting workforce. ACC should include this element in its workforce planning.

13. Contractor Personnel

A recent trend by Government contracting offices has been the use of contracts with commercial firms to obtain personnel to assist in the performance of contract-specialist functions. To determine the extent of this practice within ACC, a brief survey was sent to the Principal Assistant Responsible for Contracting (PARC) in each of the 15 ACC command elements. Thirteen responses were obtained. Seven of these organizations were not using and had never used contractor employees to perform contracting functions. Two commands had used them, and four were currently using contractor employees—numbering a total of 81 personnel, which represents approximately 2% of the ACC workforce. Of note is that 45 contractor personnel hold *DAWIA* contracting certifications, representing 56% of the contractor workforce. Twenty-one of the 45 were Level III certified. Also, 26 employees do not have a minimum of a bachelor's degree, representing 32% of the contractor workforce. Contracting experience included 32 individuals (40%) with 16-30 years' experience, and 6 individuals (7%) with over 30 years' experience. Twenty-nine individuals (36%) had less than five years' experience. Forty-nine employees (60%) are over 40 years of age. While some use of contractor support was identified, the trend is likely to be reversed due to OSD initiatives to rely less on contractors and improve use of Government personnel to perform contracting functions. A recent DOD memorandum providing guidance for the in-sourcing of contracted services emphasizes the aspect of inherently governmental functions and of maintaining key competencies within Government service (ODSD, 2009, May 28). Implementation guidance is helping to clarify the distinction between functions that are "inherently governmental" and functions that are "closely related to inherently governmental."

Appendix G contains the brief survey used during this study including summary responses.

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IV. Findings

Finding #1: Below top management, there is not an individual identified that is responsible for workforce planning. (During the course of this study, an individual was hired to focus on workforce planning issues).

Finding #2: The human resource office within ACC could take more responsibility for the accuracy and currency of the workforce databases. Numerous errors were easily identified by the researchers and brought to HR attention. Subsequent database issuances retained many of the same errors and also introduced additional discrepancies.

Finding #3: The ACC civilian databases are in urgent need of accuracy, consistency, completeness and validity cleansing. Several cells were blank when data are obviously required (accuracy). Data description is not consistent in that several different terms are used for the same item (consistency). Some individual records are missing (completeness). A comparison with data from independent sources reveals potential errors (validity).

Finding #4: The military database appears to be more robust than the civilian database.

Finding #5: ACC management is hesitant to take action due to the uncertain accuracy of the database. Until the databases have been refined, that reluctance will hinder strategic workforce planning and modeling.

Finding #6: Females constitute 60% of the civilian workforce population. Females and males are approximately evenly distributed throughout the age ranges. This matches the overall distribution of gender throughout the Federal Government contracting workforce.

Finding #7: More than 25% of the ACC civilian workforce has less than a bachelor's degree, which is significantly greater (worse) than those without a degree in other DOD agencies.

Finding #8: More than 21.1% of ACC junior civilian personnel have less than a bachelor's degree. The trend is improving (down from 23.9%); however, it is significant that there are any junior personnel at all without a bachelor's degree since that should have been a condition of employment.

Finding #9: Types of academic degrees are not captured in the databases.

Finding #10: A significantly lower percentage (21.7%) of ACC civilian personnel has academic credentials beyond a bachelor's degree than other DOD agencies.

Finding #11: Over 26% of ACC senior personnel lack a bachelor's degree.

Finding #12: There is a significant negative disparity between females and males at all educational levels.

Finding #13: A significant percentage (21.7%) of ACC supervisory personnel is without a bachelor's degree.

Finding #14: Education levels for both ACC officers and enlisted are trending lower.

Finding #15: There is a higher percentage of officers with education beyond a bachelor's degree than in the ACC civilian ranks.

Finding #16: Approximately 28% of civilian supervisors hold less than Level II certification.

Finding #17: The total number of ACC civilian personnel with no certification is increasing. and those with Levels II and III is decreasing.

Finding #18: Over 24% of ACC senior level civilian employees hold a certification below Level II.

Finding #19: Almost 13% of ACC junior personnel have obtained Level II or III contracting certification.

Finding #20: The percentage of females at each certification level is approximately the same as the female distribution in the total population (60%).

Finding #21: The data show a growing percentage (51.3%) of FA51 officers with no certification.

Finding #22: Almost 56% of ACC supervisors are females.

Finding #23: ACC supervisors as a percentage of the workforce are decreasing. Our research provides no evidence that a target ratio of supervisors to non-supervisors exists.

Finding #24: The average age of ACC contracting civilians is 48.29 as compared to 49.92 for all Federal Government contracting civilians.

Finding #25: Seven percent of all ACC civilians are eligible to retire immediately. Thirty-five percent are eligible to retire in the next ten years. The total Federal Government figures are 14% and 54% respectively.

Finding #26: Twelve percent of ACC supervisors are eligible to retire immediately, and 69% are eligible to retire within the next ten years.

Finding #27: GS personnel are 67.3% of the ACC population, and NSPS personnel are 27.3% of that population. Foreign national employees are 4.6% of the total population. The remainder is composed of ES and NH personnel.

Finding #28: Seventy-five percent of civilian employees have no information entered in the "experience" element of the database.

Finding #29: Very few contractor personnel are performing 1102 functions. Eighty-one employees in four ACC organizations were identified which constitute about 2% of the ACC civilian workforce.

Finding #30: The ARC Workforce Resource Tool being deployed by CECOM appears to provide a robust capability to capture and analyze workforce data.

Finding #31: This study found that external data sources were useful in comparing statistical data and in confirming trends. The most helpful of these data sources are identified in Appendix H.

Finding #32: The recent OSD competency assessment could serve as a starting point for future ACC competency efforts.

Finding #33: The RAND workforce planning model provides an excellent capability to assist in analyzing personnel accession and attrition issues.

Finding #34: Attrition information for ACC personnel is difficult to obtain.

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V. Recommendations

Recommendation # 1: Appoint a Project Director for Human Capital Initiatives (or similar title) charged with, among other things, tracking key demographics that measure progress toward achieving human workforce strategy objectives. Tracking and trending should be performed on a routine (at least quarterly) basis and reported to top management. This individual should have access to all ACC workforce data, as well as a direct link to other workforce databases resident in DOD.

Recommendation #2: Accelerate roll-out of the Acquisition Resource Center (ARC) web Workforce Resource Tool developed by CECOM to all ACC command elements. Most data fields required for strategic human capital planning are contained in this tool. The sooner top management and workforce planners become proficient in using this tool, the more aggressive ACC can become in human capital initiatives (HCI).

Recommendation #3: Quarterly reports should be submitted to ACC leadership regarding key workforce demographics.

Recommendation #4: Database Items

> **Recommendation #4a:** Have each member of ACC do a quarterly 100% verification and update (as necessary) of all individual items in the database. This verification should include a check for accuracy and completeness. An automated system should be considered for prompting members of the workforce to review their personal information and acknowledge that verification is complete.
>
> **Recommendation #4b:** Do a periodic "sanity" check to determine missing data elements in the database. For example, sort "PP-Perm Grade" for blanks. There should be no blank cells. For example, sort for duplicates (sort on DOB and SSN). Typically, a duplicate record occurs when two differing entries for education are recorded for the same person. Also, "sanity" check dates. A DOB of 1996 for a Major (or anyone in the workforce) should stick out.
>
> **Recommendation #4c:** Begin tracking certification levels for all Enlisted Personnel. This data field is currently blank for all enlisted personnel.
>
> **Recommendation #4d:** Ensure that entries for the same item are consistent. For example (in MilPers database), certification for the Program Management career field is recorded as PGM MGT, PROG MGT, PROG MGMT and PMT. This creates different entries for the same category. It is recommended that the three character code used by DAU for career fields and courses be utilized. For example, Contacting=CON (vice CONT), Program

Management=PMT, Lifecycle Logistics=LOG (vice ACQ LOG), Test and Evaluation=TST (vice TEST&EVAL), etc. The same is true for dates, e.g., 07/12/1967 vice 1967/07/12.

Recommendation #4e: The APDP Certification Level field in the MilPers database should be for Contracting Certification only. Other certifications achieved should be listed in a separate field. If any individuals do not have a Contracting Certification, the field should reflect "None" if they are a Functional Area 51 and "NA" if they are any other Functional Area. Since ACC is a contracting organization, this allows management to track contracting certification progress. The MilPers database should also include a "Gender" field.

Recommendation #4f: There should be no blank cells in the databases. If a cell's item does not apply to an individual or this employee has not yet obtained the item entry, show it as "NA" or "None." For example, if someone has not yet obtained a certification, enter "None" rather than leaving the cell blank. A blank cell causes one to question if it does not apply (or should be "none") or if there is a valid missing entry. Several blanks cells exist for months of experience for civilians. This is an extremely important factor to monitor and should be faithfully incorporated into demographic statistics.

Recommendation #5: Use outside data sources on a periodic basis for comparison purposes. For example, use DAU certification data to compare ACC against (1) all other Army 1102s, (2) Navy/Marine Corps, (3) Air Force, and (4) Defense Agencies. For example, use DMDC for all other Services/Agencies by pay grade, educational level, gender, and age ranges. Once database issues have been addressed, periodic demographic queries and trend analysis will be possible.

Recommendation #6: Submit periodic requests to DAU utilizing ACC unit identification codes (UICs) to compare the DAU personnel database to the ACC personnel database. Attempt to resolve differences as soon as possible, as these may then point to errors in either one or both databases requiring appropriate fixes that, in turn, may affect other data manipulation.

Recommendation #7: Perform trend analysis in the following areas: (1) certification levels, (2) educational levels, (3) age groupings, (4) retirement eligibility, (5) experience, (6) GS vs. YA/YC, (7) number and location of foreign nationals, and (8) supervisory mix. Trend analysis should be conducted on at least a semi-annual basis. Strengths and weaknesses should be highlighted for top-management discussion and potential action.

Recommendation #8: Obtain competency information as part of an ongoing effort to improve workforce skills and knowledge. The OSD competency survey could be a starting point. However, ACC should conduct its own competency survey accumulating more accurate, timely and relevant data. It is not recommended that

ACC utilize exactly the same methodology or factors used in the somewhat flawed OSD survey.

Recommendation #9: Utilize the RAND workforce inventory projection model to perform ACC workforce supply, demand and gap analyses. The model examines the attrition, new hires, recategorization, and retirement eligibility factors of the acquisition workforce; these data will prove extremely useful in future ACC workforce modeling efforts.

Recommendation #10: Education/Training Items

> **Recommendation #10a:** Investigate the contributing factors responsible for the large number of civilian employees without bachelor's degrees.
>
> **Recommendation #10b:** Aggressively provide opportunities, motivation and incentives for all ACC civilian 1102 personnel without a bachelor's degree to achieve such credential (as required by law), to include the requirement for 24 semester hours of business subjects. Successful achievement of this recommendation would ultimately reduce the number of personnel without bachelor's degrees to zero. This also demands that ACC ensures that new hires already meet the minimum educational requirements before appointment to a civil service position. In addition, consideration of an initiative to address the disparity between females and males at all educational levels is recommended.
>
> **Recommendation #10c:** Periodically compare ACC education levels to those held by other DOD Services/Agencies, the Federal civilian agencies, and private industry counterparts. Utilize such comparisons to support efforts to obtain funding and other needed resources to increase civilian personnel educational levels commensurate with ACC counterparts.
>
> **Recommendation #10d:** Capture data that display the type of degree held and business courses completed for each ACC employee. Utilize such data to assist in workload assignment, competency enhancement, and additional educational opportunity.
>
> **Recommendation #10e:** Monitor the number and percentage of senior personnel who have not achieved at least Level II certification and who have not obtained at least a bachelor's degree. Explore alternative avenues for senior personnel to obtain a bachelor's degree, including credit for work experience. Provide incentives to senior personnel to obtain the minimum educational credentials required, particularly if a good portion of the total future workforce will be older employees working well past retirement eligibility.

Recommendation #10f: Provide contracting education and experience opportunities to MOS FA51 officer personnel as soon as possible upon their entering the acquisition workforce. An 18-month resident master's degree program at NPS can meet 75% of the experience requirements and all contracting certification requirements. Alternatively, personnel could participate in the Master of Science in Contract Management (MSCM) program and obtain a degree while simultaneously fulfilling training and experience requirements.

Recommendation #10g: Concurrent with addressing the shortfall in bachelor's degrees, provide opportunities for those with bachelor's degrees to pursue and obtain master's degrees. This compels ACC leadership to be aware of the potential pitfalls of focusing on just bachelor's degrees to the detriment of advanced education.

Recommendation #11: Certification Items

Recommendation #11a: Investigate the contributing factors for the large number of civilian employees without appropriate levels of certification. In particular, the high level of supervisors with less than Level II certification should be monitored.

Recommendation #11b: Establish APDP minimum certification levels for supervisory personnel.

Recommendation #12: Supervisory Personnel

Recommendation #12a: Closely monitor the 69% of supervisors eligible to retire in the next ten years. Implement a supervisor succession and leader development program that will immediately begin to cultivate the next generation of supervisors.

Recommendation #12b: Identify the target ratio for the supervisor/non-supervisor workforce mix and manage personnel accessions and attrition to this model.

Recommendation #13: Attrition data (to include separation interview data) should be collected and closely monitored to determine the demographics of exiting personnel and to identify opportunities for workforce initiatives that will shape and develop the workforce to meet ACC goals and targets.

Recommendation # 13: Future Research

Recommendation #13a: Identify key elements of existing DOD contracting workforce staffing models.

Recommendation #13b: Provide analysis of rationale utilized for development of current models.

Recommendation #13c: Assess validity of assumptions utilized in model development.

Recommendation #13d: Compare the ACC workforce model to other DOD acquisition workforce models.

Recommendation #13e: Assess the predictability of workforce models.

Recommendation #13f: Identify trends in acquisition workforce demographics, competencies, and mission that impact existing workforce model assumptions.

Recommendation #13g: Identify key variables that would significantly impact model results should the variable magnitude change.

Recommendation #13h: Explore potential workforce models to serve as risk-assessment indicators for various areas of concern.

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Appendix A. Education

Table A1A

Civilian	Education by Grade (ES/NH)						DB:4/29/09	
Education	ES-00	NH-02	NH-03	Grand Tot				
Bachelor's degree	1	12	1	14				
Doctorate degree	1			1				
Master's degree	1	1	4	6				
Three years college		1		1				
Grand Tot	3	14	5	22				

Table A1B

Civilian	Education by Grade (GS)						DB:4/29/09	
Education	GS-05	GS-07	GS-09	GS-11	GS-12	GS-13	GS-14	Grand Tot
Associate Degree		5	8	19	40	22		94
Bachelor's degree	12	129	113	295	448	268	12	1277
Doctorate degree		1		2	1	1		5
First professional	1	1	1		2	3		8
Four years college	1	3	1	4	14	6		29
High school graduate/GED	3	19	34	63	87	37	5	248
Master's degree	1	34	39	74	102	81	9	340
Not Applicable			2	3				5
One year college		3	2	11	20	19	2	57
Post-Bachelor's		8	5	22	41	28	2	106
Post-first professional				2		2		4
Post-Master's			2		3	5		10
Sixth-year degree					1	1		2
Some college—less than one year		2	2	12	51	19	1	87
Some high school—did not graduate				1	1			2
Terminal occupational prgrm				1	5			6
Terminal occup prog—did not compl					2			2
Three years college		5	3	6	17	10		41
Two years college		4	4	12	25	10	1	56
(blank)			1	1	1	2		5
Grand Tot	18	214	217	528	861	514	32	2384

Table A1C

Civilian	Education by Grade (YA/YC)						DB:4/29/09	
Education	YA-01	YA-02	YA-03	YC-02	YC-03	Grand Tot		
Associate Degree	1	18	3	17	4	43		
Bachelor's degree	10	152	77	172	75	486		
Doctorate degree		2	1		2	5		
First professional				2	1	3		
Four years college	1	2		1	1	5		
High school graduate/GED	5	47	16	39	11	118		
Master's degree	3	43	38	53	41	178		
No formal education/some elem sch			1			1		
Not Applicable		3				3		
One year college		5	5	8	2	20		
Post-Bachelor's	1	10	10	19	14	54		
Post-Doctorate			1			1		
Post-first professional	1					1		
Post-Master's		2	1	5	1	9		
Post-sixth year		1				1		
Some college—less than one year		13	2	10		25		
Some high school—did not graduate	1					1		
Three years college		9		4		13		
Two years college	2	8	3	9	3	25		
(blank)		1	1			2		
Grand Tot	25	316	159	339	155	994		

Table A2A

Civilian	Education by Grade (ES/NH)						DB:8/26/09	
Education	ES-00	NH-02	NH-03	Grand Tot				
Associate Degree		1		1				
Bachelor's degree	1	9	5	15				
Doctorate degree	1			1				
Master's degree	2	1	4	7				
Three years college		1		1				
Grand Tot	4	12	9	25				

Table A2B

Civilian	Education by Grade (GS)						DB:8/26/09	
Education	GS-05	GS-07	GS-09	GS-11	GS-12	GS-13	GS-14	Grand Tot
Associate Degree		6	5	14	48	22	1	96
Bachelor's degree	11	182	135	299	434	276	15	1352
Doctorate degree				2	2	1		5
First professional	1	1			2	3		7
Four years college		4	3	3	12	6		28
High school graduate/GED	5	20	28	61	83	40	2	239
Master's degree	1	51	46	80	105	79	8	370
Not Applicable				4	1			5
One year college		4	2	10	21	20	2	59
Post-Bachelor's	1	7	4	21	39	30	1	103
Post-first professional				2		2		4
Post-Master's			2		3	4		9
Sixth-year degree					1	1		2
Some college—less than one year		1	4	11	49	21	2	88
Some high school—did not graduate				1	2			3
Terminal occupational prgrm					4			4
Terminal occup prog—did not compl					1			1
Three years college		5	3	8	16	9		41
Two years college		2	5	14	27	12	1	61
(blank)			1	1	1	2		5
Grand Tot	19	283	238	531	851	528	32	2482

Table A2C

Civilian	Education by Grade (YA/YC)						DB:8/26/09	
Education	YA-01	YA-02	YA-03	YC-02	YC-03	Grand Tot		
Associate Degree	2	19	6	15	5	47		
Bachelor's degree	14	154	85	160	75	488		
Doctorate degree		1	1		2	4		
First professional		1		2	1	4		
Four years college	1	3		2	1	7		
High school graduate/GED	6	48	15	36	13	118		
Master's degree	5	40	42	54	37	178		
No formal education/some elem sch			1			1		
Not Applicable		4	1		1	6		
One year college		5	3	8	3	19		
Post-Bachelor's		14	11	16	16	57		
Post-Doctorate			1			1		
Post-first professional		1				1		
Post-Master's		2	1	5	1	9		
Some college—less than one year		12	3	11		26		
Some high school—did not graduate	1					1		
Three years college		9	1	4		14		
Two years college	2	7	3	7	3	22		
(blank)		1	1			2		
Grand Tot	31	321	175	320	158	1005		

Table A3

Civilian	Education by Gender			DB: 4/29/09
Education	Female	Male	Grand Tot	
Associate Degree	103	34	137	
Bachelor's degree	1009	775	1784	
Doctorate degree	5	6	11	
First professional	2	9	11	
Four years college	19	15	34	
High school graduate or certificate of equivalency	261	108	369	
Master's degree	267	260	527	
No formal education or some elem school—did not complete	15	7	22	
Not Applicable	58	43	101	
One year college	65	12	77	
Post-Bachelor's	87	73	160	
Post-Doctorate		1	1	
Post-first professional	2	3	5	
Post-Master's	8	11	19	
Post-sixth year		1	1	
Sixth-year degree		2	2	
Some college—less than one year	105	7	112	
Some high school—did not graduate	3		3	
Terminal occupational prgrm—cert of comp/diploma/equiv	6		6	
Terminal occupational program—did not complete	1	1	2	
Three years college	38	18	56	
Two years college	67	15	82	
(blank)	44	14	58	
Grand Total	2165	1415	3580	

Table A4

Civilian	Education by Gender				DB:8/26/09
Education	Female	Male	Grand Tot		
Associate Degree	110	34	144		
Bachelor's degree	1039	821	1860		
Doctorate degree	4	6	10		
First professional	1	10	11		
Four years college	18	17	35		
High school graduate or certificate of equivalency	251	109	360		
Master's degree	286	272	558		
No formal education or some elem school—did not complete	16	7	23		
Not Applicable	59	43	102		
One year college	66	12	78		
Post-Bachelor's	86	74	160		
Post-Doctorate		1	1		
Post-first professional	2	3	5		
Post-Master's	8	10	18		
Sixth-year degree		2	2		
Some college—less than one year	108	7	115		
Some high school—did not graduate	4		4		
Terminal occupational prgrm—cert of comp/diploma/equiv	4		4		
Terminal occupational program—did not complete	1		1		
Three years college	36	20	56		
Two years college	67	17	84		
(blank)	41	17	58		
Grand Total	2207	1482	3689		

Table A5

Civilian	Education by Supervisor vs. Non-Supervisor						DB:4/29/09
Education	Ldr	Mgmt	Non-Supervisory	Supervisor	Super/Mgr	Team Ldr	Grand Tot
Associate Degree			114		23		137
Bachelor's degree	6	1	1445	2	311	19	1784
Doctorate degree			7		4		11
First professional			8		3		11
Four years college			32		2		34
High school graduate/GED	1		304		63	1	369
Master's degree			403	1	117	6	527
No formal education/some elem sch			20		2		22
Not Applicable	3		95		3		101
One year college			62		14	1	77
Post-Bachelor's			121		39		160
Post-Doctorate					1		1
Post-first professional			4			1	5
Post-Master's			12		6	1	19
Post-sixth year			1				1
Sixth-year degree			2				2
Some college—less than one year			100		11	1	112
Some high school—did not graduate			3				3
Terminal occupational prgrm			6				6
Terminal occup prog—did not compl			2				2
Three years college			49	1	5	1	56
Two years college			66		15	1	82
(blank)							
Grand Tot	10	1	2856	4	619	32	3522

Table A6

Civilian	Education by Supervisor vs. Non-Supervisor						DB: 8/26/09
Education	Leader	Mgmt	Non-Supervisory	Supervisor	Super/Mgr	Team Ldr	Grand Tot
Associate Degree			121		23		144
Bachelor's degree	5	1	1525	2	306	21	1860
Doctorate degree			6		4		10
First professional			8		3		11
Four years college			32		3		35
High school graduate/GED	1		298		60	1	360
Master's degree			435	1	119	3	558
No formal education/some elem sch			21		2		23
Not Applicable	3		94		5		102
One year college			64		13	1	78
Post-Bachelor's			121		39		160
Post-Doctorate					1		1
Post-first professional			4			1	5
Post-Master's			11		6	1	18
Sixth-year degree			2				2
Some college—less than one year			101		13	1	115
Some high school—did not graduate			4				4
Terminal occupational prgrm			4				4
Terminal occup prog—did not compl			1				1
Three years college			49	1	5	1	56
Two years college			69	1	13	1	84
(blank)							
Grand Tot	9	1	2970	5	615	31	3631

Table A7

Civilian	Education by Certification				DB:4/29/09
Education	Level I	Level II	Level III	None	Grand Total
Associate Degree	31	38	59	9	137
Bachelor's degree	394	538	604	248	1784
Doctorate degree	1	1	5	4	11
First professional	1	1	6	3	11
Four years college	6	12	11	5	34
High school graduate or certificate of equivalency	71	99	136	63	369
Master's degree	129	122	185	91	527
No formal education/some elem school	1			21	22
Not Applicable	3	3	2	93	101
One year college	16	22	35	4	77
Post-Bachelor's	40	35	70	15	160
Post-Doctorate			1		1
Post-first professional	2		1	2	5
Post-Master's	6	2	9	2	19
Post-sixth year			1		1
Sixth-year degree			2		2
Some college—less than one year	16	35	55	6	112
Some high school—did not graduate	1	2			3
Terminal occupational prgrm-cert of comp/diploma/equiv	2	3	1		6
Terminal occupational prgm—not compl		2			2
Three years college	10	20	18	8	56
Two years college	16	22	35	9	82
(blank)	3	1	3	51	58
Grand Total	749	958	1239	634	3580
Percentages	20.9%	26.8%	34.6%	17.7%	
Notes:					
1. Includes Foreign Nationals					

Table A8

Civilian	Education by Certification				DB:8/26/09
Education	Level I	Level II	Level III	None	Grand Total
Associate Degree	33	35	63	13	144
Bachelor's degree	419	525	601	315	1860
Doctorate degree	2	1	5	2	10
First professional	1	1	7	2	11
Four years college	6	12	10	7	35
High school graduate or certificate of equivalency	69	94	132	65	360
Master's degree	134	115	194	115	558
No formal education or some elem school--did not complete	1			22	23
Not Applicable	3	5	3	91	102
One year college	16	22	34	6	78
Post-Bachelor's	43	31	69	17	160
Post-Doctorate			1		1
Post-first professional	3		1	1	5
Post-Master's	5	2	9	2	18
Sixth-year degree			2		2
Some college—less than one year	18	37	54	6	115
Some high school—did not graduate	1	3			4
Terminal occupational prgrm—cert of comp/diploma/equiv	2	2			4
Terminal occupational prgm—not comp		1			1
Three years college	11	21	16	8	56
Two years college	18	22	32	12	84
(blank)	3	1	3	51	58
Grand Total	788	930	1236	735	3689
Percentages	21.4%	25.2%	33.5%	19.9%	
Notes:					
1. Includes Foreign Nationals					

Appendix B. Certification

Table B1

Civilian	Certification Levels by Grade				DB:4/29/09
Grade	Level I	Level II	Level III	None	Grand Total
ES-1102-00			2	1	3
GS-1102-05				18	18
GS-1102-07	14	3		197	214
GS-1102-09	106	23	1	87	217
GS-1102-11	112	325	36	55	528
GS-1102-12	149	398	292	22	861
GS-1102-13	125	54	326	9	514
GS-1102-14	8	4	18	2	32
NH-1102-02	3	5	5	1	14
NH-1102-03			5		5
YA-1102-01	10	1		14	25
YA-1102-02	56	108	115	37	316
YA-1102-03	48	3	105	3	159
YC-1102-02	81	27	220	11	339
YC-1102-03	35	5	108	7	155
Grand Total	747	956	1233	464	3400
Percentages	22.0%	28.1%	36.3%	13.6%	

Table B2

Civilian	Certification Levels by Grade				DB: 8/26/09
Grade	Level I	Level II	Level III	None	Grand Total
ES-1102-00			3	1	4
GS-1102-05				19	19
GS-1102-07	12	4	1	266	283
GS-1102-09	95	18	1	124	238
GS-1102-11	157	287	30	57	531
GS-1102-12	155	409	265	22	851
GS-1102-13	123	59	337	9	528
GS-1102-14	9	4	18	1	32
NH-1102-02	1	3	5	3	12
NH-1102-03		2	7		9
YA-1102-01	9			22	31
YA-1102-02	60	106	126	29	321
YA-1102-03	50	8	115	2	175
YC-1102-02	74	24	216	6	320
YC-1102-03	40	6	107	5	158
Grand Total	785	930	1231	566	3512
Percentages	22.4%	26.5%	35.1%	16.1%	

Table B3

Civilian	Certification Levels-Senior Grades				DB:4/29/09
Grade	Level I	Level II	Level III	None	Grand Total
ES-1102-00			2	1	3
GS-1102-12	149	398	292	22	861
GS-1102-13	125	54	326	9	514
GS-1102-14	8	4	18	2	32
NH-1102-02	3	5	5	1	14
NH-1102-03			5		5
YA-1102-03	48	3	105	3	159
YC-1102-02	81	27	220	11	339
YC-1102-03	35	5	108	7	155
Grand Total	449	496	1081	56	2082
Percentages	21.6%	23.8%	51.9%	2.7%	

Table B4

Civilian	Certification Levels-Senior Grades				DB: 8/26/09
Grade	Level I	Level II	Level III	None	Grand Total
ES-1102-00			3	1	4
GS-1102-12	155	409	265	22	851
GS-1102-13	123	59	337	9	528
GS-1102-14	9	4	18	1	32
NH-1102-02	1	3	5	3	12
NH-1102-03		2	7		9
YA-1102-03	50	8	115	2	175
YC-1102-02	74	24	216	6	320
YC-1102-03	40	6	107	5	158
Grand Total	452	515	1073	49	2089
Percentages	21.6%	24.7%	51.4%	2.3%	

Table B5

Civilian	Certification Levels-Junior Grades				DB:4/29/09
Grade	Level I	Level II	Level III	None	Grand Total
GS-1102-05				18	18
GS-1102-07	14	3		197	214
GS-1102-09	106	23	1	87	217
GS-1102-11	112	325	36	55	528
YA-1102-01	10	1		14	25
Grand Total	242	352	37	371	1002
Percentages	24.2%	35.1%	3.7%	37.0%	

Table B6

Civilian	Certification Levels-Junior Grades				DB: 8/26/09
Grade	Level I	Level II	Level III	None	Grand Total
GS-1102-05				19	19
GS-1102-07	12	4	1	266	283
GS-1102-09	95	18	1	124	238
GS-1102-11	157	287	30	57	531
YA-1102-01	9			22	31
Grand Total	273	309	32	488	1102
Percentages	24.8%	28.0%	2.9%	44.3%	

Table B7

Civilian	Certification by Gender				DB:4/29/09
Acq Career Level	Female	Male	Grand Total	% Female	% Male
Level I	454	295	749	60.6%	41.0%
Level II	565	393	958	59.0%	38.0%
Level III	768	471	1239	62.0%	40.4%
None	378	256	634	59.6%	40.4%
Grand Total	2165	1415	3580		

Table B8

Civilian	Certification by Gender				DB: 8/26/09
Acq Career Level	Female	Male	Grand Total	% Female	% Male
Level I	470	318	788	59.6%	40.4%
Level II	559	371	930	60.1%	39.9%
Level III	759	477	1236	61.4%	38.6%
None	419	316	735	57.0%	43.0%
Grand Total	2207	1482	3689		

Table B9

Civilian	Certification by Supervisor vs. Non-Supervisor				DB:4/29/09
Supv Status	Level I	Level II	Level III	None	Grand Total
Leader			7	4	11
Management Official (CSRA)		1			1
Non-Supervisory	584	917	806	606	2913
Supervisor (CSRA)			3	1	4
Supervisor or Manager	154	35	407	23	619
Team Leader	11	5	16		32
Grand Total	749	958	1239	634	3580
Supervisor	4.3%	1.0%	11.5%	0.7%	17.4%
Non-Supervisor	16.6%	25.8%	23.2%	17.0%	82.6%
Notes:					
Includes Foreign Nat'ls					
Leader/Team Leader included as non-supervisor					

Table B10

Civilian	Certification by Supervisor vs. Non-Supervisor				DB: 8/26/09
Supv Status	Level I	Level II	Level III	None	Grand Total
Leader			6	4	10
Management Official (CSRA)		1			1
Non-Supervisory	622	890	807	708	3027
Supervisor (CSRA)	1		3	1	5
Supervisor or Manager	155	36	407	17	615
Team Leader	10	3	13	5	31
Grand Total	788	930	1236	735	3689
Supervisor	4.2%	1.0%	11.1%	0.5%	16.8%
Non-Supervisor	17.1%	24.2%	22.4%	19.3%	83.0%
Notes:					
Includes Foreign Nat'ls					
Leader/Team Leader included as non-supervisor					

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Appendix C. Gender

Table C1

Civilian	**Gender by Grade Levels**			**DB: 4/29/09**
Grade Levels	Female	Male	Grand Total	
ES-1102-00	2	1	3	
GS-1102-05	8	10	18	
GS-1102-07	116	98	214	
GS-1102-09	132	85	217	
GS-1102-11	306	222	528	
GS-1102-12	553	308	861	
GS-1102-13	311	203	514	
GS-1102-14	17	15	32	
NH-1102-02	7	7	14	
NH-1102-03	3	2	5	
YA-1102-01	17	8	25	
YA-1102-02	205	111	316	
YA-1102-03	95	64	159	
YC-1102-02	200	139	339	
YC-1102-03	78	77	155	
Grand Total	2050	1350	3400	
Percentages	60.3%	39.7%		

Table C2

Civilian	Gender by Grade Levels			DB: 8/26/09
Grade Levels	Female	Male	Grand Total	
ES-1102-00	2	2	4	
GS-1102-05	11	8	19	
GS-1102-07	160	123	283	
GS-1102-09	126	112	238	
GS-1102-11	308	223	531	
GS-1102-12	531	320	851	
GS-1102-13	330	198	528	
GS-1102-14	18	14	32	
NH-1102-02	6	6	12	
NH-1102-03	5	4	9	
YA-1102-01	20	11	31	
YA-1102-02	213	108	321	
YA-1102-03	105	70	175	
YC-1102-02	180	140	320	
YC-1102-03	81	77	158	
Grand Total	2096	1416	3512	
Percentages	59.7%	40.3%		

Table C3

Civilian	Gender by Supervisory Position				DB: 4/29/09
Supv Status description	Female	Male	Grand Total		
Leader	5	6	11		
Management Official (CSRA)		1	1		
Non-Supervisory	1786	1127	2913		
Supervisor (CSRA)	2	2	4		
Supervisor or Manager	350	269	619		
Team Leader	22	10	32		
Grand Total	2165	1415	3580		
Includes Foreign Nat'ls					

Table C4

Civilian	Gender by Supervisory Position				DB: 8/26/09
Supv Status description	Female	Male	Grand Total		
Leader	4	6	10		
Management Official (CSRA)		1	1		
Non-Supervisory	1833	1194	3027		
Supervisor (CSRA)	3	2	5		
Supervisor or Manager	344	271	615		
Team Leader	23	8	31		
Grand Total	2207	1482	3689		
Includes Foreign Nat'ls					

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Appendix D. Grade Levels

Table D1

Civilian	Grade Levels		DB:4/29/09
	Occupational Series		
Grade	1102	Grand Total	
ES-1102-00	3	3	
GS-1102-05	18	18	
GS-1102-07	214	214	
GS-1102-09	217	217	
GS-1102-11	528	528	
GS-1102-12	861	861	
GS-1102-13	514	514	
GS-1102-14	32	32	
NH-1102-02	14	14	
NH-1102-03	5	5	
YA-1102-01	25	25	
YA-1102-02	316	316	
YA-1102-03	159	159	
YC-1102-02	339	339	
YC-1102-03	155	155	
Grand Total	3400	3400	

Table D2

Civilian	Grade Levels		DB: 8/26/09
	Occupational Series		
Grade	1102	Grand Total	
ES-1102-00	4	4	
GS-1102-05	19	19	
GS-1102-07	283	283	
GS-1102-09	238	238	
GS-1102-11	531	531	
GS-1102-12	851	851	
GS-1102-13	528	528	
GS-1102-14	32	32	
NH-1102-02	12	12	
NH-1102-03	9	9	
YA-1102-01	31	31	
YA-1102-02	321	321	
YA-1102-03	175	175	
YC-1102-02	320	320	
YC-1102-03	158	158	
Grand Total	3512	3512	

Table D3. Officer Ranks vs. MOS

OFFICERS	Rank vs. MOS									4/21/2009
Count of RANK	MOS									
RANK	01A	15Z	27A	51A	51C	51Z	90A	91A	92Z	Grand Total
BG					1					1
COL			1		8	3				12
CPT	1		3		10				1	15
CPT(P)					8					8
LTC			3	1	20	11	1			36
MAJ		1	1	4	112			1		119
MAJ(P)				1	4					5
Grand Total	1	1	8	6	163	14	1	1	1	196

Table D4

Count of RANK	MOS																		
RANK	00BX	01A	02A	15Z	25A	270A	27A	31Z	35D	420A	42H	51A	51C	51Z	56A	90A	92Z	Unk	Total
BG	1																		1
COL							3				1		12	1	1	1			19
CPT		1					6					1	5					2	15
CPT(P)		1	1						1				12				1		16
CW2										1									1
CW4						1													1
LTC		1			1		4					2	34	4	1	1			48
MAJ		2		1			5	1					149					4	162
Total	1	5	1	1	1	1	18	1	1	1	1	3	212	5	2	2	1	6	263

Table D5. Enlisted Ranks vs. MOS

ENLISTED	Rank vs. MOS							DB: 4/21/09
Count of NAME	MOS							
RANK	00Z	42A	51C	88M	89B	92A	92Y	Grand Total
CSM	3							3
MSG		1	14			3		18
SFC		1	50			2		53
SGM			9					9
SGT		2					1	3
SSG		1	21	1	1		1	25
Grand Total	3	5	94	1	1	5	2	111

Table D6

											DB: 8/26/09
Count of RANK	MOS										
RANK	00Z	27D	42A	51C	88M	89B	92A	92Y	92Z	Unk	Total
CSM	3										3
MSG			1	12			1				14
SFC			1	62			3			1	67
SGM				9					1		10
SGT			2					1		2	5
SSG		1	1	30	2	1		1		1	37
Total	3	1	5	113	2	1	4	2	1	4	136

Appendix E. Pay Plans

Table E1

Civilian	Pay Plan	DB: 4/29/09
Count of PP-Sers-Grd Perm		
PP-Sers-Grd Perm	Total	
--	8	
BA-1102-09	4	
BA-1102-11	4	
C1-1102-06	4	
C1-1102-07	32	
C1-1102-08	3	
C1-1102-09	2	
C1-1102-5A	1	
C1-1102-6A	16	
C1-1102-7A	31	
ES-1102-00	3	
GS-1101-12	1	
GS-1102-05	18	
GS-1102-07	214	
GS-1102-09	217	
GS-1102-11	528	
GS-1102-12	861	
GS-1102-13	514	
GS-1102-14	32	
IG-1102-05	3	
IG-1102-07	12	
IG-1102-09	8	
IG-1102-11	33	
IG-1102-12	4	
KO-1102-09	2	
NH-1102-02	14	
NH-1102-03	5	
XY-1102-Q1	1	
XY-1102-Q2	4	
XZ-1102-01	2	
XZ-1102-02	1	
XZ-1102-03	3	
YA-1102-01	25	
YA-1102-02	316	
YA-1102-03	159	
YC-1102-02	339	
YC-1102-03	155	
YC-1801-03	1	
Grand Total	3580	

Table E2

Civilian	Pay Plan	DB: 8/26/09
Count of PP-Sers-Grd Perm		
PP-Sers-Grd Perm	Total	
--	9	
BA-1102-09	3	
BA-1102-11	4	
C1-1102-06	4	
C1-1102-07	32	
C1-1102-08	2	
C1-1102-09	2	
C1-1102-5A	1	
C1-1102-6A	15	
C1-1102-7A	31	
ES-1102-00	4	
GS-1102-05	19	
GS-1102-07	283	
GS-1102-09	238	
GS-1102-11	531	
GS-1102-12	851	
GS-1102-13	528	
GS-1102-14	32	
IG-1102-05	5	
IG-1102-07	14	
IG-1102-09	12	
IG-1102-11	27	
IG-1102-12	4	
KO-1102-09	2	
NH-1102-02	12	
NH-1102-03	9	
XY-1102-Q1	1	
XY-1102-Q2	5	
XZ-1102-01	1	
XZ-1102-02	1	
XZ-1102-03	2	
YA-1102-01	31	
YA-1102-02	321	
YA-1102-03	175	
YC-1102-02	320	
YC-1102-03	158	
Grand Total	3689	

Appendix F. Foreign Nationals

Table F1

Civilian	**# Foreign Nationals**	
Pay Grades	4/29/09	**8/26/09**
BA-1102-09	4	3
BA-1102-11	4	4
C1-1102-06	4	4
C1-1102-07	32	32
C1-1102-08	3	2
C1-1102-09	2	2
C1-1102-5A	1	1
C1-1102-6A	16	15
C1-1102-7A	31	31
IG-1102-05	3	5
IG-1102-07	12	14
IG-1102-09	8	12
IG-1102-11	33	27
IG-1102-12	4	4
KO-1102-09	2	2
XY-1102-Q1	1	1
XY-1102-Q2	4	5
XZ-1102-01	2	1
XZ-1102-02	1	1
XZ-1102-03	3	2
Grand Total	170	168

Table F2

Civilian	Foreign Nationals by Gender			DB: 4/29/09
Count of PP-Sers-Grd Perm	Sex			
PP-Sers-Grd Perm	Female	Male	Grand Total	
BA-1102-09	2	2	4	
BA-1102-11	4		4	
C1-1102-06	3	1	4	
C1-1102-07	16	16	32	
C1-1102-08	2	1	3	
C1-1102-09	1	1	2	
C1-1102-5A		1	1	
C1-1102-6A	9	7	16	
C1-1102-7A	15	16	31	
IG-1102-05	3		3	
IG-1102-07	7	5	12	
IG-1102-09	6	2	8	
IG-1102-11	28	5	33	
IG-1102-12	3	1	4	
KO-1102-09		2	2	
XY-1102-Q1	1		1	
XY-1102-Q2	3	1	4	
XZ-1102-01	2		2	
XZ-1102-02		1	1	
XZ-1102-03	3		3	
Grand Total	108	62	170	

Table F3

Civilian	Foreign Nationals by Gender			DB: 8/26/09
Count of PP-Sers-Grd Perm	Sex			
PP-Sers-Grd Perm	Female	Male	Grand Total	
BA-1102-09	1	2	3	
BA-1102-11	4		4	
C1-1102-06	3	1	4	
C1-1102-07	16	16	32	
C1-1102-08	1	1	2	
C1-1102-09	1	1	2	
C1-1102-5A		1	1	
C1-1102-6A	8	7	15	
C1-1102-7A	15	16	31	
IG-1102-05	3	2	5	
IG-1102-07	10	4	14	
IG-1102-09	7	5	12	
IG-1102-11	23	4	27	
IG-1102-12	3	1	4	
KO-1102-09		2	2	
XY-1102-Q1	1		1	
XY-1102-Q2	4	1	5	
XZ-1102-01	1		1	
XZ-1102-02		1	1	
XZ-1102-03	2		2	
Grand Total	103	65	168	

Table F4

Civilian	FN Education	DB: 4/29/09
Education Level	Grand Total	
High school graduate or certificate of equivalency	3	
Master's degree	1	
No formal education or some elem school—did not complete	21	
Not Applicable	93	
Two years college	1	
(blank)		
Grand Total	119	

Table F5

Civilian	FN by Education	DB: 8/26/09
Education Level	Grand Total	
High school graduate or certificate of equivalency	3	
Master's degree	1	
No formal education or some elem school—did not complete	22	
Not Applicable	90	
Two years college	1	
(blank)		
Grand Total	117	

Appendix G. Contractor Personnel Questionnaire

NAVAL POSTGRADUATE SCHOOL
Graduate School of Business and Public Policy (GSBPP)
Monterey, CA 93943

3/31/09

Contractor Personnel Questionnaire

1. Number of firms in your organization currently contracted to perform 1102 functions.	0 **9**	1-5 **4**	>5 **0**	
2. If none, have you ever had such contracts?	Yes **2**	No **7**		
3. Number of contractor personnel involved.	<10 **0**	11-20 **2**	>20 **2**	
4. Number of contractor manpower equivalents (CMEs) represented.	<10 **0**	11-20 **3**	>20 **1**	
5. Number of contractor personnel with prior Federal Government experience.	<5 **0**	5-10 **2**	>10 **2**	
6. Number of contractor personnel with DAWIA certifications in contracting.				
6a. Level I (Basic)	**5**			
6b. Level II (Intermediate)	**19**			
6c. Level III (Advanced)	**21**			
7. Number of male contractor personnel.	0 **0**	1-10 **3**	11-20 **1**	>20 **0**
8. Number of female contractor personnel.	0 **0**	1-10 **2**	11-20 **2**	>20 **0**
9. Percentage of your workforce involving contractor personnel.	<1% **0**	1-10% **2**	11-20% **1**	>20% **1**
10. Age ranges of contractor personnel.	20-40 **31**	41-65 **44**	>65 **5**	
11. Number of years contracting experience (both in and out of Government combined).	<5 **29**	5-15 **13**	16-30 **32**	>30 **6**
12. Number of personnel with educational credentials (including 24 hrs of business-related courses).	BA/BS **42**	MA/MS **13**	PhD/DBA/EdD **0**	No Degree **26**

Note: Please check the appropriate box for questions 1-9 and record the appropriate numbers of personnel for questions 10-12.

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Appendix H. Information Sources

1. Data

The following data sources should be queried on a regular basis regarding key workforce demographics:

Defense Acquisition University (DAU): http://www.dau.mil/workforce/historical_report.asp

Defense Manpower Data Center (DMDC): https://www.dmdc.osd.mil/drs/; http://www.fedstats.gov/key_stats/index.php?id=DMDC

Federal Acquisition Institute (FAI): http://www.fai.gov/fapis.asp (Annual Workforce Reports)

Acquisition Career Management Information System (ACMIS): https://admin.acmis.gov/

2. Studies and Reports

The following information sources should be queried on a regular basis regarding workforce studies and reports, including human capital strategic management initiatives:

Aerospace Industries Association (AIA): http://www.aia-aerospace.org/

Council of Defense and Space Industry Associations (CODSIA): http://www.codsia.org/

Defense Acquisition University (DAU): http://www.dau.mil/pubs/arqtoc.asp

Defense Procurement and Acquisition Policy (DPAP), Office of the Secretary of Defense (OSD): http://www.acq.osd.mil/dpap/index.html

Federal Acquisition Institute (FAI): http://www.fai.gov/sturep.asp

Federal Procurement Data Center (FPDS): https://www.fpds.gov/

Government Accountability Office (GAO): http://www.gao.gov/

Institute for Supply Management (ISM): http://www.ism.ws/

Logistics Management Institute (LMI): http://www.lmi.org/

National Contract Management Association (NCMA): http://www.ncmahq.org/

National Technical Information Center (NTIS): http://www.ntis.gov/

Office of Federal Procurement Policy (OFPP): http://www.whitehouse.gov/omb/procurement_default/

Office of Personnel Management (OPM): http://www.opm.gov/ and http://www.fedscope.opm.gov/

RAND Corporation: http://www.rand.org/pubs/index.html

The Conference Board: http://www.conference-board.org/ea/index.cfm

U.S. Air Force: http://ww3.safaq.hq.af.mil/

U.S. Navy: https://acquisition.navy.mil/rda/

2003 - 2009 Sponsored Research Topics

Acquisition Management

- Acquiring Combat Capability via Public-Private Partnerships (PPPs)
- BCA: Contractor vs. Organic Growth
- Defense Industry Consolidation
- EU-US Defense Industrial Relationships
- Knowledge Value Added (KVA) + Real Options (RO) Applied to Shipyard Planning Processes
- Managing the Services Supply Chain
- MOSA Contracting Implications
- Portfolio Optimization via KVA + RO
- Private Military Sector
- Software Requirements for OA
- Spiral Development
- Strategy for Defense Acquisition Research
- The Software, Hardware Asset Reuse Enterprise (SHARE) repository

Contract Management

- Commodity Sourcing Strategies
- Contracting Government Procurement Functions
- Contractors in 21st-century Combat Zone
- Joint Contingency Contracting
- Model for Optimizing Contingency Contracting, Planning and Execution
- Navy Contract Writing Guide
- Past Performance in Source Selection
- Strategic Contingency Contracting
- Transforming DoD Contract Closeout
- USAF Energy Savings Performance Contracts
- USAF IT Commodity Council
- USMC Contingency Contracting

Financial Management

- Acquisitions via Leasing: MPS case
- Budget Scoring
- Budgeting for Capabilities-based Planning
- Capital Budgeting for the DoD
- Energy Saving Contracts/DoD Mobile Assets
- Financing DoD Budget via PPPs
- Lessons from Private Sector Capital Budgeting for DoD Acquisition Budgeting Reform
- PPPs and Government Financing
- ROI of Information Warfare Systems
- Special Termination Liability in MDAPs
- Strategic Sourcing
- Transaction Cost Economics (TCE) to Improve Cost Estimates

Human Resources

- Indefinite Reenlistment
- Individual Augmentation
- Learning Management Systems
- Moral Conduct Waivers and First-tem Attrition
- Retention
- The Navy's Selective Reenlistment Bonus (SRB) Management System
- Tuition Assistance

Logistics Management

- Analysis of LAV Depot Maintenance
- Army LOG MOD
- ASDS Product Support Analysis
- Cold-chain Logistics
- Contractors Supporting Military Operations
- Diffusion/Variability on Vendor Performance Evaluation
- Evolutionary Acquisition
- Lean Six Sigma to Reduce Costs and Improve Readiness

- Naval Aviation Maintenance and Process Improvement (2)
- Optimizing CIWS Lifecycle Support (LCS)
- Outsourcing the Pearl Harbor MK-48 Intermediate Maintenance Activity
- Pallet Management System
- PBL (4)
- Privatization-NOSL/NAWCI
- RFID (6)
- Risk Analysis for Performance-based Logistics
- R-TOC AEGIS Microwave Power Tubes
- Sense-and-Respond Logistics Network
- Strategic Sourcing

Program Management

- Building Collaborative Capacity
- Business Process Reengineering (BPR) for LCS Mission Module Acquisition
- Collaborative IT Tools Leveraging Competence
- Contractor vs. Organic Support
- Knowledge, Responsibilities and Decision Rights in MDAPs
- KVA Applied to AEGIS and SSDS
- Managing the Service Supply Chain
- Measuring Uncertainty in Earned Value
- Organizational Modeling and Simulation
- Public-Private Partnership
- Terminating Your Own Program
- Utilizing Collaborative and Three-dimensional Imaging Technology

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